



**INFORMATION SEEKING BEHAVIOUR OF  
HUMANITIES/ARTS INTERNATIONAL POSTGRADUATE  
STUDENTS IN PUBLIC UNIVERSITIES IN  
KWAZULU-NATAL PROVINCE, SOUTH AFRICA**

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Submitted in fulfilment of the requirements for the degree of Doctor of Philosophy in the Information Studies Programme, School of Social Sciences, College of Humanities, University of KwaZulu-Natal, Pietermaritzburg, South Africa.

## DECLARATION

I, Moise Majyambere, declare that:

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Supervisor: Prof. Ruth Geraldine Melonie Hoskins

Signed: \_\_\_\_\_

## **DEDICATION**

This work is dedicated to the glory of the Almighty God.

This study is also dedicated to my late parents. Beautiful memories of you are deeply locked into my heart and may you rest in peace.

## ABSTRACT

The study investigated the information seeking behaviour of Humanities/Arts international postgraduate students in public universities in KwaZulu-Natal Province, South Africa. Three public universities participated in the study, namely the University of KwaZulu-Natal (UKZN), University of Zululand (UNIZULU) and Durban University of Technology (DUT). The study applied a survey approach which included both quantitative and qualitative methods. The data collection tools were a self-administered questionnaire for the international postgraduate students, a focus group discussion with students who were not given questionnaires, and semi-structured interviews were conducted with the Heads of International Students Office (HISOs) at the surveyed universities. Research tools were triangulated with the aim of obtaining richer data. Pre-testing of research tools, evaluation of research methods, and consideration of ethical issues were discussed to ensure validity and reliability of research findings. The quantitative data were collected through questionnaires and were analysed using SPSS, while the qualitative data were drawn from the individual interviews and focus group discussion and were analysed using thematic content analysis. The overall response rate was 91.9% (218 out of 237 sample size). The study was informed by Wilson's (1999) model of information behaviour.

The findings of the study revealed that international postgraduate students had academic and personal information needs at the host universities. Students who participated in the study were all from African countries (excluding South Africa). The study discovered the main areas of information needs for the respondents were predominantly the information services related to the registration process; learning and research purposes based on university protocols; English language competency as a medium of instruction; and information literacy and computer skills. Students had to secure compulsory documents required for registration such as a passport with a valid study permit, medical aid insurance cover, proof of payment of tuition fees and payment of an international levy before they could be registered. In addition, new international postgraduate students had to secure a South African Qualification Authority (SAQA) accreditation to register. The study noted that accommodation was a major personal need and affected academic studies for many international students staying off-campus since they were not able to access the library facilities and had limited use of the Internet services from campus.

The study revealed different sources of information used by surveyed students to satisfy their academic information needs. The library resources and services were mentioned by 100% of the participants as the main source for their academic needs. The Internet was the most used source for both academic resources and social motivation to communicate with colleagues and relatives back home and helped to overcome distance. The study noted that students were involved in both active and passive information seeking behaviour depending on the nature of the need. It was indicated that students had actively consulted supervisors for guidance regarding research projects and also obtained support from subject librarians to search for information. Students had however also passively received information from their colleagues while interacting with them and obtained information from the Internet.

The study revealed problems related to limited English language proficiency of international students based on their academic backgrounds. The study identified other problems experienced by international postgraduate students such as their limited information literacy and computer skills, shortage of the International Students Office (ISO) staff and slow service, delays in renewing study permits, poor medical aid services, high tuitions fees, regular increase in the international levy, lack of awareness of available university services, and lack of a policy document regarding international students. The study revealed that support offered by the host universities should be improved in order to promote the information services delivered to the international postgraduate students. Participation in the orientation programme for all international students must be made compulsory. The study recommends that the ISOs should improve liaison with the Home Affairs Department, Momentum (Ingwe) and CompCare. The study also recommends that the universities should increase the number of residence rooms and assign a staff member to deal directly with accommodation problems of international students. The major outcome of the study was an information behaviour model of international postgraduate students. The study concludes that a policy document regarding services for international students should be formulated and communicated to all appropriate bodies especially key service providers and international students.

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## LIST OF ABBREVIATIONS AND ACRONYMS

ASK: Anomalous States of Knowledge  
BBA: Bachelor of Business Administration  
BTech: Bachelor of Technology  
CD: Compact Disk  
CD-ROM: Compact Disk-Read Only Memory  
CHE: Council on Higher Education  
DRC: Democratic Republic of Congo  
DTech: Doctor of Technology  
DUT: Durban University of Technology  
DVD: Digital Video Disk  
ELIS: Everyday Life Information Seeking  
ERIC: Education Resources Information Center  
FDS: Focus Group Doctoral Students  
FHS: Focus group Honours Students  
FMS: Focus Group Masters Students  
GA: Graduate Assistant  
HESA: Higher Education South Africa  
HISO: Heads of International Students Office  
ICT: Information and Communication Technology  
IEASA: International Education Association of South Africa  
IIE: Institute of International Education  
IIUM: International Islamic University Malaysia  
IL: Information Literacy  
IPS: Information Problem Solving  
IR: Information Retrieval  
ISB: Information Seeking Behaviour  
ISG: International Students Guides  
ISO: International Students Office  
KIST: Kigali Institute of Science, Technology and Management  
LAN: Local Area Network  
LIS: Library and Information Science

MTech: Masters of Technology  
MUT: Mangosuthu University of Technology  
OECD: Organisation for Economic Co-operation and Development  
OPAC: Online Public Access Catalogue  
PG: Postgraduate  
PGDIS: Postgraduate Diploma in Information Studies  
PhD: Doctor of Philosophy  
SADC: Southern African Development Community  
SAQA: South Africa Qualification Authority  
SCONUL: Society of College, National, and University Libraries  
SMS: Short Message System  
SRC: Student Representative Council  
TV: Television  
UK: United Kingdom  
UKZN: University of KwaZulu-Natal  
UN: United Nations  
UNESCO: The United Nations Educational, Scientific and Cultural Organisation  
UNISA: University of South Africa.  
UNIZULU: University of Zululand.  
US\$: United States Dollar.  
USA: United States of America  
UWC: University of Western Cape

## **CHAPTER 1: INTRODUCING THE STUDY**

### **1.1 Introduction**

Higher education worldwide is very important for the development of every society. Academically we live in an interconnected world that necessitates the need for useful information. The study focuses on investigating the information seeking behaviour of Humanities/Arts international postgraduate students in KwaZulu-Natal public universities. This foundational chapter introduces the background and the research problem. It outlines the research objectives, key questions and theoretical framework of the study. The chapter also provides an overview of the research design and methods applied by the study. It further defines key terms used in the study and briefly provides the structure of the thesis.

### **1.2 Background to the study**

The background to the study provides the foundation for the entire study. The background comprises a discussion of international students globally and, more specifically, international students in South African universities. The United Nations Educational, Scientific and Cultural Organisation (UNESCO) Institute for Statistics (2009: 250) define international students as “people studying in a foreign country of which they are not permanent residences”. This definition serves the purpose of this study whereby the term ‘international student’ refers to students crossing borders or leaving their territory of origin and travel for the specific purposes of studying at South African universities (in KwaZulu-Natal) using a study visa-permit. They are now enrolled outside their country of origin; hence a student returns to their home country after his/her study is concluded. So the study does not focus on distance learning students. Nevertheless, other institutions sometimes apply different definitions to the term ‘international student’ or they often use interchangeably the terms ‘international student’ and ‘foreign student’. Throughout this study, the term ‘international student’ will consistently be applied and any deviation from the above definition will be noted.



Yusoff (2006: 1) argued that “internationalisation of higher education is one of the important transformation processes of developing countries towards globalisation”. Initially, Wu (2008: 87) noted that “education imparts skills and knowledge”. Perraton (2000: 153) highlights that higher education in the developing world turns into an international activity. Lee (2006: 1) describes globalisation as “the process by which the peoples and nations of the world are increasingly drawn together into a single entity”. In this regard, higher education reflects a good example of globalisation. Huxley and Jacobs (2004) referred to globalisation as a network society. Idiegbeyan-Ose and Akpoghome (2009: 26) and Minishi-Majanja (2009: 148) noted that it promotes global connectivity. Globalisation influences all life perspectives such as within a socio-political space (Held and McGrew 2000: 4); business world as well as new technology (Castells 2000: 69); and scientific trends that directly impact higher education (Altbach 2004: 5). Global networks considerably empower effective academic communication (Carr 2007: 159). For instance, Okello-Obura (2011: 41) noted that “technology has become an integral part of high education learning”. Dawson (2013: 473) and Garfield (2006: 11) argued that technology promoted knowledge sharing and consultation of multiple open access resources. Moed (2010: 17) mentioned that global research networks become more beneficial even for scholars living in developing countries.

Sexton (2012: 5) noted that globalisation in terms of the education arena results in intercultural competence depending on a large trend mobility of international students. Lee (2006: 2) indicates that the United Nations (UN) strongly motivates and supports globalisation for higher education. However, Altbach (2004: 7) further mentioned that “globalisation opens access and makes it easier for students and scholars to study and work anywhere”. In this context, Chen (2009: 15) recently investigated international students’ life situation in the Netherland and suggested that a host university should design “cross-cultural training that aims to assist the learning process of adapting to a new culture for international students”. The suggestion may arguably also apply to a country that is faced with a diverse cultural environment, more especially South Africa. One of the challenges faced by international students is to access information in the South African academic environment, particularly in the digital age.

Ikoja-Odongo and Mostert (2006: 145-146) discussed three foremost periods reflecting historically shift in information seeking research perspectives and these included the 1940s up to the 1970s, the main research focus was based on the evaluation of information collections and engaging merely on information services and existing systems themselves. By the early 1970s up to the 1980s, information seeking research attention shifted from looking at physical information systems as sources of information, to information seeking as a concept and process. Since the 1980s onwards, studies related to information seeking behaviour of individuals or groups of people were motivated by consideration of information requirements from both systems viewpoint and at the same time concerns from the user or individual's perspective.

Even though information needs and seeking behaviour of international postgraduate students will further be defined and contextualised for the purpose of this study under the definitions of key terms (section 1.10), it is necessary to briefly explain at this stage these two fundamental terms. Feather and Sturges (1997: 216) define information needs as “the expression used in a wide range of ways to refer to any context where information is sought and it represents all forms of information seeking”. In the same vein, Ingwersen and Järvelin (2005: 20) observe that “information needs may lead to information-seeking and formulation of requests for information”. Davies and Harrison (2007: 79) maintain that unexpressed needs are not recognised as information needs, but an expressed or articulated need is an actual perceived need and it normally demands an answer. Thus, this study considers expressed information needs which basically lead to action, instead of studying unexpressed or dormant needs of which an individual is not aware of (Fourie 2010: 38), unless being informed by an information service provider (Ikoja-Odongo and Mostert 2006: 147). Therefore, Case (2002: 258) highlights that “information needs vary according to users' membership in professional and social groups, their demographical backgrounds, and the specific requirements of the tasks they are performing”. This makes sense, in a way that academic needs predominantly represent the chief needs and involve multiple information-seeking patterns of international students at their current universities. The requirements of conducting research and writing a thesis/dissertation create particular tasks for these international students especially at the postgraduate level.

The field of information seeking behaviour in information science, which this study falls in, is described as becoming more concerned with determining user's information needs, searching behaviour and subsequent use of information (Julien 1996: 1). Davis (2000: 57) defines information seeking behaviour as "an activity of an individual that is undertaken to identify a message that satisfies a perceived need". In the same line of thought, Burke (2007: 679) argues that information seeking comprises examining the ways in which people find information they require, such as how (activities involved) and where (sources) people look for solutions to information problems. Prabhavathi (2011: 34) believes that "information seeking behaviour involves personal reasons for seeking information, the kind of information which is being sought, and the ways and sources with which needed information is being sought". Fourie (2006: 101) notes that "information seeking can be active or passive". Thus, the study precisely focuses on information needs and information seeking behaviour of this specific group of international postgraduate students.

The study also considered the existence of some key factors, related to information seeking behaviour which might highly influence the way international students adjust to new academic environments at host countries (current universities). Al-Sharideh and Goe (1998: 701) states that adjustment can be "viewed as representing a transitional process that unfolds over time as students learn to cope with the exigencies of the university environment". These include new educational adjustment, and new social-environmental dynamics surrounding these students such as intercultural adjustments and language issues. According to Poyrazli and Kavanaugh (2006), several factors that can influence information seeking behaviour of international students include: demographical factors such as country of origin and gender; contextual factors including size of the community, social support network and availability of resources at current universities; and then individual factors such as education background and language ability/competence. For instance, Holm (2004: 1) indicates that "language is a kind of social behaviour". Altbach (2004: 10) indicated that the English language is a medium of instruction for most prominent academic systems, which pertinently applies to this study. Tollefson (2002: 7) noted that better understanding of language policies represents a core value within the higher education context. The University of KwaZulu-Natal Council (2006) has supported the development of English and IsiZulu for academic study and research purposes. Particularly the

University of KwaZulu-Natal has strengthened collaboration with the University of Zululand in terms of developing curriculum in IsiZulu. Considering the University of KwaZulu-Natal's new language policy related to the introduction of IsiZulu as a compulsory course for all first year students, according to an article published in the *Sunday Times* (Clause 2013) which reported that the Deputy Vice-Chancellor for teaching and learning, Professor Renuka Vital, highlighted that "at a university where more than 60 percent of students are Zulu-speaking, the institution has an obligation to ensure linguistic choices result in effective learning solutions". Therefore this new language policy has been implemented adding IsiZulu as the second language accepted for the medium of instruction other than English at the University of KwaZulu-Natal.

Peters (2010: 1) notes that recently "the international dimension of higher education has become increasingly important and more complex". Slowey and Schuetze (2012: 5) argued that universities are now considered as important "economic, social and cultural players". Many host countries are currently reforming substantial amendments to immigration policies with core objective to facilitate and maintain a large influx of international students including arrival and integration into the local universities (Knight 2008: 5-6). Public higher education institutions basically receive more than 80% of government research funds (Altbach 2004: 7). The research funding enables the governments to control the internal activities of the university (Clancy 2007: 116). However, Slowey and Schuetze (2012: 5) and De Zilwa (2010: 7) revealed that public universities worldwide are critically suffering from a financial crisis due to new government budgetary cuts. Therefore, Andrade and Evans (2009: 7) highlighted that financial contribution to the host economy "is one of the key reasons for global competition for international students". Gundara (2000: 93) noted university competition may be based on the amount of fees charged to international students. For example, De Zilwa (2010: 6) provided statistics related to the relevant funds generated from fees paid by international students in Australian universities. Brogan (1990: 196) also mentioned that "in academic institutions the argument for increasing the international competence of students is twofold, stemming from educational and economic imperatives". Sam (2001: 315) noted that international students promote cultural diversity in the host countries. Peters (2010: 2) argued that "international students bring cultural and intellectual diversity, and in times of decreased public funding and increased costs, they contribute essential income". Therefore, Hanassab and Tidwell (2002:

306) strongly recommended that educators cannot undervalue the intellectual capital and financial resources that international students represent.

Beyer, Taylor, and Gillmore (2013: 137) and Brown (2006: xiii) indicated that higher education is recently facing changes in terms of teaching and learning styles. Webb, Gannon-Leary, and Bent (2007: 188-189) noted that public universities are often experiencing strong regional and global competition not only among themselves but also with private universities. In the South Africa context, Walters (2012: 253) notes that between 2003 and 2005, public universities were merged from 36 to 23. Yet in 2011 there were about 87 private universities in South Africa. On the other hand, De Jager and Nassimbeni (2005: 31) indicated that “two drivers of change in higher education are global moves towards identifying graduate skills, and the initiation of quality assurance systems”. Public universities are under intensive pressure to bridge financial gaps, to become more competitive academically (Altbach 2004: 5). For instance, Minishi-Majanja (2009: 148) and Slowey and Schuetze (2012: 3) mentioned that qualified graduate students with special skills are needed for both local and international labour markets.

To corroborate this view, Davis (2007: 5) pointed out that a good reputation of a host university is a key motivator for international students “who wish to solidify success in their careers when they return to their homelands”. In this regard, public universities are responsible to better implement impressive recruitment strategies which have to contribute to the enrolment growth of more international students, especially talented (education matter) and self-funded (funding issue) international students who need to pursue their postgraduate studies (research and publication issues). Hence, it is very necessary to provide an in-depth understanding of the international students’ needs at an early stage and of course the information seeking behaviour of these students should be determined. Knight (2008: 9) further argued that it is then important to identify problems or challenges experienced whenever acquiring relevant information in order to develop appropriate information delivery systems and also to ensure the existence of a friendly academic environment at host universities for international students.

The 2007 figures of the UNESCO indicate that there was approximately 150.6 million tertiary students globally, of which the number of students leaving their home countries for their higher

education abroad was around 2.8 million and notably with an estimation increasing up to 7 million international students by 2020 (UNESCO Institute for Statistics 2009). The higher education trend represents an increase of 4.6% on the previous year and a growth of almost 53% since 2000. However, this report notes that Sub-Saharan Africa has the lowest participation rate (less than 5%) in the world. In the same line of thought, the UNESCO World Conference on Higher Education (2009) report maintains that North America and Western Europe have continuously hosted the largest number of international students than the rest of the world, for instance, in the year 2000 and 2007 respectively, of a total of 1,825,000 international students (1,285,000 nearly 70%) and of a total of 2,800,000 international students (1,817,000 almost 65%). Sub-Saharan Africa has only hosted 48,000 (only 2.6%) and 73,000 (2.6%) international students in 2000 and 2007 respectively.

However, the actual picture presented by the International Education Association of South Africa 'IEASA' (2012) report shows that a large number of international students were registered at South African universities, for example, since the 1994 first democratic election from 12,600 to 72,875 in 2012. Thus, international students have increased six fold over the last two decades. In this context, Altbach (1991: 305) witnesses that as early as 1980s there were at least one million students worldwide enrolled at tertiary institutions outside their home country. Although in 1975, when the Organisation for Economic Co-operation and Development (OECD) began keeping records, only 800,000 students enrolled as international students worldwide but they had increased to about 3.3 million in 2008 (IEASA 2012).

Mpinganjira (2011) noted that many host countries have recognised the value of rapid growth in international student mobility towards their tertiary education system and they have established national bodies to support and advise both higher education institutions/universities and international students. Some national bodies include the British Council for the United Kingdom (UK), the Institute of International Education 'IIE' in the United States of America (USA), and the International Education Association of South Africa (IEASA). Smith and Khawaja (2011: 700) indicated that international students promote knowledge and skills within multiple research interests "thereby contributing to the intellectual capital of their host country and adding to the work force". In this regard, Seemann et al. (2000: 86) provided three key

elements of intellectual capital and these are human capital, social capital, and structural capital. Daly (2011: 60) further argued that the potential benefits of having international students at universities in host countries are linked to skills migration, economic growth, public diplomacy and, more importantly, to research and innovation for a knowledge society. Moreover, international educational exchange is often considered as an example of the governmental use of the university as an agent of state power and as a tool of political ideology (O'Mara 2012). For instance, Mazzarol and Soutar (2002: 82) indicated international student flow is relatively associated with the importance of historical or colonial links. Harrison and Peacock (2009: 878) further noted that even host students promote their intercultural communication skills by interacting with international students who bring diverse cultural features to host universities.

Smith and Khawaja (2011: 700) indicated that the stay of international students “is mutually beneficial as they bring a range of assets to their host country and in return gain higher education”. Butcher and McGrath (2004: 541) as well as McKenzie (2009: 336) observed that access to high quality education is a key factor more often considered by international students while selecting a university. This motive is also supported by other studies such as Endrizzi (2010), Alam (2009), Mpinganjira (2009), and Cubillo, Sanchez and Cervino (2006). The international students are also driven by availability of courses of choice which are considered as a variety of educational options (McKenzie 2010: 107) and multiple research options in host institutions (Mazzarol and Soutar 2002). Lord and Dawson (2002: 3) and Altbach (2004: 10) argued that academic and career related expanded employment opportunities were the core benefits to study abroad for international students. Although, Bulman (2004: 513) and Hughes (2005: 173) highlighted that international students wanted to live and experience another culture, however, Butcher and McGrath (2004: 541) and Sánchez, Fornerino and Zhang (2006) underlined that some international students were interested in learning a foreign language. For instance, Butcher and McGrath (2004: 541) mentioned the ability to speak the English language fluently. Doyle et al. (2010) revealed that New Zealand students who had attended universities abroad were basically inspired by social, cultural and linguistic benefits. Therefore, access to the useful information at the right time tends to play an important role in their academic and personal lives when international students are deciding to study abroad.

This study considers both African international students and those from outside of the continent because the picture might be incomplete without the latter group. Although much of the data may not be exclusive to African international students but arguably some of the key factors may be specific. For instance, according to Mpinganjira (2011: 2182), students from the Southern Africa region were mostly drawn to higher education in South Africa on account of the higher quality of educational resources, proximity, cultural and linguistic links. Lord and Dawson (2002: 3) also mentioned geographic proximity and social links. It is important to note that there are some other factors that arguably motivate international students, especially students from the African continent to continue their postgraduate studies in South African universities instead of heading towards other popular overseas destinations such as Europe or North America. These factors include: the higher costs associated with international education (Lowe 2000: 365). For example, expensive tuition fees and living costs involved at overseas universities (Mazzarol 1997: 71). Other factors include academic entry requirements related to previous academic results, visa schemes and immigration procedures (Stewart 1991: 119). Cambridge and Thompson (2004); and Lord and Dawson (2002: 3) revealed that international student expectations and motivations also influence the preference regarding the choice of the host universities. For example, Chan (1999: 295) comments on the high expectations of Chinese students about the good quality of education offered by the UK and the USA. This situation may arguably make sense for African international students (majority) when they are deciding to undertake their postgraduate studies in South Africa.

According to Verbik and Lasanowski (2007: 6), globally over the last decade, the September 11 terrorist attack against the USA and its related consequences have continuously influenced the international education climate for changes in mobility patterns of international students. Weinberg (2012: 1) affirms that this attack was literally considered as the Al-Qaeda main operation. Yusoff (2006: 3) further indicated that the 9/11 attack negatively led to the critical decrease of new applications for international students from Middle Eastern countries to the USA, rather these students shifted their education interest to Malaysia. Williams and Johnson (2011: 42) also noted the rise in xenophobia against this group of international students mainly from the Middle East hosted in the USA universities after the 9/11 terrorist attack. In terms of the Africa context, security issues can also be a factor when selecting an African host university



(destination) since other competitive African countries (universities) such as Kenya, Egypt and Nigeria currently suffer from instability in security when compared to South Africa.

In many respects, Altbach (2004: 8) states that a large volume of developing countries, mostly African countries, do not have sufficient facilities for research, and consequently they only offer bachelor degrees (limited to undergraduate level). Vil-Nkomo (2000: 93) mentioned that South African universities are academically well ranked at international education levels. Moja (2006: 81) further noted that many African countries prefer to send their students to South Africa because of the high quality of education considered almost similar to Western education, and the tuition fees charged are less. It was important to note that the South African Council on Higher Education (CHE) (2004) recommends that higher education institutions in South Africa have a responsibility to support the government “to stay on the competitive side of the digital divide” (Council on Higher Education 2004: 37).

Moreover, Verbik and Lasanowski (2007: 6) revealed that the USA, the UK and Australia are still the top three worldwide host nations with 45% of the total number of international students. For instance, Marginson (2002: 412) also notes a continuous increase of international students in Australian universities. Andrade and Evans (2009: 2) added that almost 22% of all international mobile students were globally hosted in the USA. Verbik and Lasanowski (2007: 6) further mentioned three main reasons for these countries being the competitive destinations of a large number of international students and these include:

- All three English-speaking countries attract international students from all over the world. Yusoff (2006: 4) indicated that based on the study conducted by Kashima and Loh (2006), an English-speaking background has supportively contributed to socio-cultural adjustment for Asian international students studying in Australian universities. Altbach (2004: 3) also noted that primarily “countries that use English benefit from the increasingly widespread use of that language for science and scholarship”.
- These countries strategically target international students from the world’s two most prominent source countries and these are China and India. Peters (2010: 3) also

reported that China specifically is a major source of international students enrolled in the USA and Canada (North America).

- Such countries national educational bodies and local universities together have put in place attractive recruitment strategies to impress potential international students from worldwide. In the same line of thought as indicated above, Knight (2008: 5-6) has discussed different initiatives and approaches developed and implemented by host countries (especially the USA) in order to attract a significant number of international students from different countries explicitly within the strong competitive international tertiary education arena.

Peters (2010: 3) briefly provided an overview of international students enrolled in North America as follows: in 2007-2008, out of 623,805 the total number of international students enrolled in the USA, the majority of them were from Asia (61% of the total number); on the other hand, out of 80,200 international students registered in Canadian universities, half of these students were from Asia and China represented 46% of the Asia students. Interestingly, Bradley et al. (2008: 9) pointed out that Australia has been “extremely successful in developing education as an important export industry”. Moreover, Verbik and Lasanowski (2007: 6) added that the USA, the UK and Australia as key players in the international student market consider and give value to the significant cultural and financial contributions of international higher education to the host nation economies.

Smith and Khawaja (2011: 700) argued that international students are an important financial commodity for their host country. In other words, South Africa can also explicitly increase economic development from the financial contributions of international students enrolled at local universities through both educational charges (tuition fees) and living costs/spending. IEASA (2012) noted that South Africa has not only strong research universities but also its local scholars have impressive regional and global reputations in their areas of expertise. These key components truly add value and influence a large community of international postgraduate students and fellow researchers from outside the country (South Africa) who engage in highly appropriate research in their fields within host South African public universities. According to

IEASA (2012), remarkably in 2009, South Africa had 145,000 graduates of which international students represented a large number of 11,380 graduate students (closely 8%).

Undergraduate students basically attend regular classes and they are given notes with explanations from qualified lecturers. On the other hand, postgraduate students including international students are expected to attend seminars, actively participate in class presentations, more often contribute and write academic papers for conferences. Webb, Gannon-Leary, and Bent (2007: 189) perceived that many research universities are continuously empowering postgraduate recruitment and decreasing the number of undergraduate students. For example, Williams and Sutton (2011: 67) recently highlighted the shortage of local graduate students who are willing to register for doctoral (PhD) studies in the UK. On the other hand, graduate students, including international students are required to conduct academic research projects (thesis/dissertation) which require a high level of academic understanding. This research process involves consulting a variety of information sources and systems within a complex academic environment more particularly for international students.

Postgraduate students, including international students, are usually expected to invest a lot of effort within research projects for their academic requirements (Le Voi and Potter 2002: 3). They then tend to consult different sources and systems available at their current universities. In this context, knowledge generated from user-centred studies may considerably play a vital role to develop proper information systems and at the same time to improve the existing information delivery services for students including international students. For instance, Taylor (1968: 179) focuses chiefly on the user and his/her interaction with the librarian. For the purpose of this study, information seeking largely focuses on interaction between the university information services, for example, its various departments and information seekers, namely the international postgraduate students enrolled within the Humanities/Arts.

Today information plays a very important role in human or everyday life (Meyer 2005: 2). The library is often assumed to be the most important source of information used by literate societies (Pareek and Rana 2013: 1). A literate society can be basically involved in policymaking processes and research activities (Olson and Torrance 2001: 13). A literate

society includes international students who need information for academic and research activity, but the university environment is made up of a heterogeneous group of disciplines. Therefore all departments together have to work hand in hand in order to ensure the provision of accurate information needed by the users for academic purposes. In this context, international students predominantly face multiple challenges resulting from social integration to the challenges of the new academic environment at host universities.

To date, no major research has been specifically undertaken in the South Africa context on the information seeking behaviour of international postgraduate students (Schoole and Lee 2014). Within socio-economic context of post-apartheid regime (after 1994) in South Africa, a new generation of South African (local) students have the ability to openly interact and communicate with other colleagues, including both local and international students. Although some needs and seeking behaviour patterns may presumably be similar for these local and international students (Sin and Kim 2013: 108; Hughes 2005: 172) at their current universities (KwaZulu-Natal Province, South Africa), the nature of this study is not a comparative study (Song 2004); rather it focuses only on the information seeking behaviour of international students at the postgraduate level. This study focuses on Humanities/Arts since they represented similar disciplines at the three surveyed universities. However, there is no clear definition on what constitutes Arts or Humanities disciplines. Humanities include at some institutions Social Sciences, but language generally belongs to Arts. The surveyed students were postgraduates involved in research activities than merely attending normal classes for routine learning purposes.

### **1.3 Statement of the problem**

Davies and Harrison (2007: 79) maintain that “need varies amongst population and is not homogeneous”. Stilwell (1991: 20) observes that every society has definite needs and information services have to carefully cover appropriate format and use of understandable language. This applies equally to the international students registered at these three public universities: University of KwaZulu-Natal (UKZN) (traditional), University of Zululand (UNIZULU) (comprehensive) and Durban University of Technology (DUT) which also offers

degrees not just professional qualifications. For example, the English language which is the accepted medium of instruction at these universities is a second or even third language to the majority of international students (Trew 2006: 150). This might directly create communication barriers and make the satisfaction of information needs of international students more difficult (Jeong 2004). International students are from various political boundaries; therefore according to Abdoulaye (2002: 193), African international students have different education, language and culture backgrounds.

Some of the international postgraduate students have completed their previous degrees from their countries of origin (home universities) which could imply they have a different educational background, and hence they may arguably have limited information literacy skills (Hughes 2005: 173). To corroborate this view, Kuhlthau (2008: 71) notes that “information literacy is at the core of what it means to be educated in this century”. This can consequently handicap their ability to efficiently carry out their research projects. The majority of international students face diverse cultural and financial challenges at their host universities (Smith and Khawaja 2011: 704). International students enrolled at the South African universities are studying away from their home countries. Thus, the new academic environment may arguably be one of the main challenges hindering the information seeking behaviour of international students at postgraduate level in their host countries, in the sense that, these international students do not have an immediate extended support network with their family members. Therefore, all these issues can clearly justify the multiple needs of international students in terms of integrating and accommodating both academic and personal needs in the South African higher education context.

Few empirical studies have examined the international graduate students’ information seeking behaviour (Liao, Finn and Lu 2007; Jeong 2004) and information needs (Yi 2007; Mehra and Bilal 2008). Moreover, Sin and Kim (2013: 108) argued that “international students’ information seeking is still not well understood”. A review of the related literature reveals that no comprehensive study has been conducted which specifically deals with information seeking behaviour of international students in the context of South African universities (Majyambere 2012). In other words, to fully comprehend the information seeking behaviour of international

graduate students, it is important to understand their information needs (Thani and Hashim 2011: 137). Therefore, the needs of international postgraduate students' cohort cannot be neglected and the present study then attempts to fill this gap by investigating the information seeking behaviour of these students. Therefore, this enabled the identification of the surveyed students' needs, sources used, information seeking behaviour, and initiatives related to the improvement of delivery system. This study gained its origin from a study conducted in 2012 by Majyambere (2012: 109) which suggested further studies to cover in-depth use of library resources by international students and to expand the study to public universities and determine the fundamental reasons for lack of awareness of available information services. Therefore, given this purpose the study formulated the following major problem:

What are the information-seeking behaviour and information needs of Humanities/Arts international postgraduate students in KwaZulu-Natal public universities?

#### **1.4 Objectives of the study**

The study was guided by the following research objectives:

1. To determine the information needs of international students at the three South African universities.
2. To identify major problems experienced when seeking information.
3. To identify how the information services offered to international students can be improved.

#### **1.5 Research questions**

The main research problem was broad and was therefore divided into the following five research questions which aimed to achieve the above research objectives. The five research questions were as follows:

1. What are the information needs of international postgraduate students?
2. What information resources are used by international postgraduate students?
3. How do international postgraduate students obtain the information they need?

4. What problems do international postgraduate students experience in terms of acquiring information?
5. How can information services that are offered to international postgraduate students be improved?

## **1.6 Theoretical framework**

This study has gained its roots from theories of information behaviour presented in a book edited by Fisher, Erdelez, and McKechnie (2005). It included certain vital models of information behaviour, namely: Krikelas's (1983) model of information seeking, Ellis's (1989) model of information seeking behaviour, and Wilson's (1999) model of information behaviour. For instance, the Krikelas's (1983) model comprises 13 constituents. In fact, Case (2012: 141) added that "the causal process generally flows downward, with some provision for feedback loops". McKenzie (2003: 20) argues that "many models have been developed using a cognitive approach to model building". Along the same line of the cognitive approach, Bandura (1986: 467) asserts human behaviour may be motivated by internal incentives. Within the theoretical framework of information seeking, the study adopted the theoretical framework of information behaviour as represented and updated (from 1981 to 1999) by Wilson's model of information behaviour. Wilson (2005: 33) highlighted that "Wilson's model is not derived from any theory proposed by other writers but from an analysis of human information behaviour" and hence international postgraduate students are appropriately part of this group in terms of human behaviour.

There are some other relevant studies of information behaviour and these include: Wilson's (1997) problem-solving model, Kuhlthau's (1993) information search process, Dervin's (1992) model of sense-making theory, and Belkin's (1980) model of Anomalous States of Knowledge (ASK). For instance, Kuhlthau's (1989: 1) describes the information search process model as "a holistic learning process encompassing the affective experience of students as well as their intellect". On the other hand, Belkin's (1980: 135) ASK model focuses on the link between what an information user is looking for when she/he inputs a demand in an information retrieval system and the information she/he imagines to be retrieved from an information retrieval

system. In this context several models concerning information need and seeking behaviour of different groups of people have been developed either at single or collective phases, they included information needs (Krikelas 1983), information seeking (Ellis 1989 and Kuhlthau 1991) and information behaviour (Wilson 1999). These models are further explained in-depth in Chapter Two (section 2.4). However, it is necessary to briefly explain the reason for which Wilson's (1999) model was chosen as a theoretical framework for the study. In other words at the early stage, Bawden (2006: 673) admired the Wilson's (1999) model of information behaviour not only in terms of its simplicity that empowers a consensus understanding within the Library and Information Science (LIS) field, but also its power to bring clarity in terms of the relation existing between human information behaviour, information seeking and information retrieval.

Wilson's (1999) model of information behaviour was specifically applied for the purpose of the current study. In this model, information need, information seeking, information sources, and information use/exchange are integrated into a flow diagram (section 2.3). This model is based upon two key elements. First, the model looks at information need as a secondary need that arises out of a more basic or primary need; and second, during the process of discovering information to satisfy a need, the information seeker tends to meet with barriers of different kinds (Wilson 1999: 252). These barriers included: personal, interpersonal, and environmental barriers. In fact, the Wilson's model advises how information needs arise and it identifies the factors that can prevent the actual search for information. To corroborate this view, Choo (2001: 2) perceived that various factors influence browsing behaviour and these are external factors (environmental turbulence), organisational factors (strategy pursued), information-related factors (availability and quality of information) and personal factors (cognitive style).

Lwoga, Ngulube and Stilwell (2010: 84) argued that information seeking behaviour is purposive in nature and furthermore it represents an outcome of a need to satisfy some objectives. Two criticisms of the Wilson's (1999) model may be relevant. First, an individual may expect information needs to change as information is encountered in the course of the seeking process. Second, the use of various information systems and other information sources enable the user to obtain outcomes which may occur either as a success (positive result) or as



failure (negative result) search (Wilson 2006: 660). In this context, Wilson (1999: 251) indicated that the user's query to formal and informal information sources or services results in success or failure. If successful, the individual then makes use of the information found and may either fully or partially satisfy the perceived need. Consequently, failure to satisfy the perceived need mostly leads to repeating the search process but sometimes the information seeker may give up (Wilson 2006: 664). Therefore international students at postgraduate level may primarily use information found from library materials, for example, in order to carry out their research projects (theses/dissertations) and they may either timeously finish (success) or delay to complete that academic task (failure). Although, the present study did not measure the level of satisfaction, the failure would result in non-satisfaction and necessitate the user to adapt his/her search using a different information system, but the successful retrieval of information results in a user's satisfaction.

Wilson (1999: 250) further describes the model as "a framework for thinking about a problem and may evolve into a statement of the relationships among theoretical propositions". Wilson's (1999) model considers the involvement of other people and information systems through information exchange towards information seeking behaviour (Wilson 2006: 660). Information seeking behaviour of international postgraduate students studying in South African universities can certainly involve different people on one side, for example, consulting supervisors and colleagues. On the other side, information systems are basically utilised, for example, subject librarians assist international postgraduate students while they are looking for relevant resources for the purpose of their research projects. In other words, people often tend to solve information problems by interaction with other people (Hansen and Järvelin 2004). Wilson (2006: 660) and Shenton (2003) argued that people frequently seek information from other people before looking to a written source of information.

Wilson's (1999) model is beneficial to those working in the LIS field since it draws attention to information users (Wilson 2006: 659), including arguably international students and how they look for information, what they do with the information and how they act when failing to obtain the acquired information at the first stage and then restarting their information searching process. Wilson (1999: 250) considers models of information behaviour to be "statements, often

in the form of diagrams that attempt to describe an information-seeking activity, the causes and consequences of that activity, or the relationships among stages in information-seeking behaviour". In other words, Wilson's (1999) model facilitated the systematic study of information seeking behaviour. It is in this context the Wilson's model was at some stages where necessary supported by the understandings emanated from other related models developed within the information-seeking behaviour context as a LIS sub-field and these models are further elaborated on in Chapter Two.

### **1.7 Research design and methods**

The section briefly presents the research design and methods that were applied for the purpose of this study. However, the complete research methodology is clearly discussed under the research methodology, Chapter Four of the study. Durrheim (2006b: 35) noted that "designing a study involves multiple decisions about the way in which the data will be collected and analysed to ensure that the final report answers the initial research question". Creswell (2009: 7) argued that "studying the behaviour of individuals becomes paramount for a post-positivist". This study adopted a post-positivist approach to survey research which has involved both quantitative and qualitative methodologies. Merriam (2009: 8) basically referred to post-positivism as a new version of positivism. In this regard, Blaikie (2010: 97) argued that post-positivism consists of reality revolving around human experiences. This study also involved people (students) as participants and applied methodological triangulation to investigate their information seeking behaviour.

Mason (2006: 10) argued that the use of mixed methods approach mainly allows the researcher "to access multiple perspectives and dimensions". Creswell and Plano Clark (2011: 8) and Gorman and Clayton (2005: 25) highlighted that the mixture of quantitative and qualitative approaches not only improves the sources of data but also leads to better understanding of the specific research problem. Flick (2009: 32) stated that mixed methods approach is known as a third research movement as it has merged after quantitative and qualitative methods. A mixed methods approach has become popular in education and social science disciplines (Lichtman 2011: 209). In terms of mixing methods with the aim of developing reliable research

instruments, McNeill and Chapman (2005: 24-25) noted that survey questionnaires can be cross-checked by conducting interview with few participants. Barbour (2008: 153) affirms that “some studies augment qualitative data by seeking to capture some quantitative information to provide a context against which qualitative data can be interpreted”. Johnson and Christensen (2012: 433) indicated that a combination of the multiple methods in a single study allows interpreting numerical data in a meaningful textual format.

Elliott (2005: 177) also highlighted that qualitative evidence contributes more effort to reach understandable information about research data analysed quantitatively. Pinnegar and Daynes (2007: 19) indicated that numbers strengthen the discussion of research results. Therefore, this study used a mixed methods approach and the research data are triangulated. The objective was to use the two methodologies in order to increase the validity and reliability of the research data collected, in the sense that one method compliments and serves as a check of the other. However, Locke, Silverman and Spirduso (2010: 182) argued that qualitative research is currently represented in numerous fields of study, and its influence in the social sciences has been growing gradually. Thus, the overall methodology of the current study was predominantly qualitative.

### **1.7.1 Study population**

The rational description of the study population is delineated in Chapter Four of the study. Therefore the study population was formed by the following two main groups:

- International postgraduate students registered in Humanities/Arts.
- The Heads of International Student Offices (HISOs).

### **1.7.2 Data collection methods**

Qualitative methodology was dominantly considered appropriate for collecting data from the HISOs and quantitative approach was found convenient to collect data from international postgraduate students registered in Humanities/Arts. The following research instruments were used for collecting data and these included:

- A questionnaire for the international postgraduate students registered in Humanities/Arts. The questionnaire consisted of both open-ended questions and closed-ended questions which yielding both qualitative and quantitative data. The self-administered and hand delivered questionnaires were distributed to the international student respondents. It was considered that the questionnaire had the potential to collect a large amount of data in relatively short time frame as the study population was scattered and a large population was involved. The questionnaire addressed international postgraduate students' information seeking behaviour and their information needs. The questionnaire also helped to determine information systems and other sources of information. It enabled students to identify the problems experienced during their information-seeking process, information services available at their current universities and to provide suggestions related to the improvements of such information services (Appendix 2). Basically, research data were quantitatively collected by using a self-administered questionnaire designed for international students.
- A focus group discussion with international postgraduate students. To support and corroborate information obtained from the questionnaire, the researcher conducted one focus group discussion with 10 students (details provided in section 4.8.2). The discussion was recorded via tape recorder (once permission to do so was granted by students). The discussion assisted to determine the international students' needs, problems experienced while acquiring information as well as their preferred information sources (Appendix 6). Interestingly focus group discussions had created an open discussion platform and free space to exchange viewpoints between the researcher and participants (students). Thus, the discussions led to insights into the information seeking behaviour of international postgraduate students as was the main objective of the study.
- Semi-structured interviews with the Heads of International Student Office from the three public universities in KwaZulu-Natal. Face-to-face interviews were employed and interviews were also recorded via tape recorder (once permission to do so was granted by the Heads). It was necessary to adopt the interview method to overcome limitations of the questionnaire, more especially a shortage of time and the work scope

of the HISO. The interview schedule sought to explore the availability of information services, the problems related to the use of these information services (Appendix 4). The interview schedule was employed as a supplement to the questionnaire. Therefore, research data were qualitatively collected by using the semi-structured interview with the HISO and complemented by a focus group discussion with international postgraduate students.

In addition, the literatures review to establish the theoretical framework of the study and to systematically guide the empirical component of the study was also a method of gathering data. The review provided in-depth understanding of information seeking behaviour of international postgraduate students, their information needs and preferred information sources often used for academic purposes. It also covered the common problems experienced by these international students while seeking information in order to satisfy their perceived needs at their current universities. The literature review is provided in more detail in Chapter Three of the study.

It is important to note that more recently Bitso's (2011) study has been carried out at the University of Pretoria focusing on information needs and information seeking patterns of secondary level geography teachers in Lesotho. The study interestingly used multiple research methods as does this present study and these methods included a hand-delivered questionnaire, semi-structured interview, focus group discussions as well as a literature review. Bitso's (2011) study added an observation method through site visits to school libraries and the present study did not apply this method because it was found inappropriate for this study's interest. Moreover, three previous related studies investigating the information seeking behaviour of certain students in the South African public universities context, in KwaZulu-Natal namely, Majyambere (2012) and Seyama (2009) at the University of KwaZulu-Natal, and Nkomo (2009) at the University of Zululand and Durban University of Technology used both quantitative and qualitative research methodologies which were employed in a single survey research regarded as a mixed methods approach. The main research instrument was the self-administered questionnaire and it was supported by interviews for the purpose of collecting data in all three studies. The present study also used both quantitative and qualitative methodologies in a single survey as well.

### **1.7.3 Data analysis**

This survey research involved a mixed methods approach which combined two methodologies such as quantitative and qualitative data. Therefore, quantitative data were collected from a self-administered questionnaire for students, while qualitative data were collected from focus group discussions with students and semi-structured interviews with the HISO. Cassell and Hiremath (2013: 416) indicate that “like individual interview method, the focus group aims at probing community experience and perceptions”. Olsen (2012: 77) further expressed that the focus group method basically supports other data collection methods especially survey questionnaires and interviews. The interviews were purposeful recorded and transcribed (Ge 2010: 438).

SPSS was used to analyse the quantitative data from the questionnaire (George and Mallery 2003), while thematic content analysis was used to analyse the qualitative data (Namey et al. 2008: 138). The study involved engaging activities of breaking the data down and thereafter created themes which had assisted the researcher to qualitatively analyse the research data. The statistical analysis required that the data be coded and for the purpose of this study, the data cleaning process had involved checking all variables for incorrect or impossible codes. Content analysis and statistical analysis of the data are discussed in detail in Chapter Four of the study.

### **1.8 Significance of the study**

This study investigates the information seeking behaviour of international postgraduate students registered in Humanities/Arts. The study aimed to provide a more comprehensive and in-depth study in terms of identifying the information needs and information seeking behaviour of the international students who represent a significant cohort to South African tertiary education. The outcomes of this study will be beneficial to South African academic institutions in serving this group of international postgraduate students to meet their information needs. In this regard, the findings will enable decision makers (universities) to improve and update their educational policies established with the aim of accommodating international students more effectively. Thus, the findings emanating from this study will also assist to improve the services offered to

international students and to add to the growing body of knowledge in this area of research by filling gaps in the literature as discussed earlier in the section 1.3. Also this study will inform theory, policy and practice relating to information seeking behaviour of international postgraduate students. The study provides the proposed model of information seeking of international postgraduate students (section 7.3).

## **1.9 Scope and limitations**

The study was conducted with the following guidelines:

- The study was delimited to three public universities in KwaZulu-Natal Province, South Africa. These included: University of KwaZulu-Natal (UKZN), University of Zululand (UNIZULU) and Durban University of Technology (DUT).
- The Mangosuthu University of Technology (MUT) has only three Faculties and these include: Faculty of Natural Sciences, Faculty of Management Sciences and Faculty of Engineering. The MUT did not have a Faculty of Humanities/Arts, thus MUT was not included in the study.
- The University of South Africa (UNISA) was also excluded from the study as it did not offer contact based education like the other public universities under study.
- Only international postgraduate students and the Heads of International Student Office were included in the target groups surveyed. Therefore, local (host) South African postgraduate students were not included in the study.
- International students from Humanities/Arts were included and other Faculties were not included in the study. Undergraduate were not included in the study given the research focus of postgraduate studies.
- The study covered postgraduate studies which included three main levels of study such as honours, masters, and doctoral students registered at these three public universities (UKZN, UNIZULU, and DUT). Honours students basically attend classes and they all write a small research project. Masters are divided into two groups, some of them do a coursework programme and others follow a research programme (they only write a dissertation/thesis). On the other hand, doctoral students are at a senior level of graduate study. They conduct a major academic research project (critical research) compared to

the rest of the groups. Therefore, the study included all three groups in order to ensure the structure of the study.

- Given the fact that the study was limited to information seeking behaviour within the LIS field, it did not focus on perceptions from a psychological perspective but rather on the perceptions of the international students and their information seeking behaviour from a LIS perspective.
- The English language is the accepted medium of instruction at these three public universities in KwaZulu-Natal and the English language was therefore the only language used for the purpose of this study.

### **1.10 Definition of key terms**

This section outlines the working definitions of main terms used in this study. Kumar (2011: 55-56) notes that ‘working definitions’ or ‘operational definitions’ are interchangeably used to explain key terms applied in the study. Although a brief background on the international student, information need and information seeking behaviour has been provided under the background of the study (section 1.2) with an aim to guide the present research, their application with other related key terms used in this study should all be contextualised. However, it is still important to note that these terms are further discussed in Chapter Three under the literature review. Therefore, the terms are systematically presented under this section for better understanding of the current research and these terms include: information, information need, information seeking behaviour, information behaviour, information source, information use, and information system. This study generally excluded other information science sub-fields such as information storage and retrieval, information reading and knowledge management.

#### **1.10.1 Information**

Ikoja-Odongo and Mostert (2006: 146) pointed out that the term information gained its roots as a concept originated from the Greek terms of the pre-Christians era such as typos, idea and



morphé, evolving into the Latin word ‘informatio’. The term ‘information’ does not have a single agreed upon definition (Norman 1986: 5). There is always some failure to make distinctions among information, facts, device and opinion (Wilson 2006: 659). Yet it is necessary to define the word ‘information’ because other key concepts used in this study are built upon the concept of information. The term information is defined, understood and interpreted differently across a vast array of disciplines (Losee 1997: 254). In the same line of thought, Mutshewa (2006: 34) observed that even though information has been contextualised throughout various disciplines such as communication, information science, and information systems but still each of these disciplines has a different emphasis. In the context of this study it is important to define the word ‘information’.

Many scholars have frequently tried to define information in the field of information science as well as the field of which this study falls in and they did not come up with one acceptable definition of the concept of information (Bawden 2007: 2). Zhang and Benjamin (2007: 1935) argued that information is associated with the following concepts, namely few of them such as fact, data, knowledge, intelligence, news, communication, instruction representation, and mental experience. In this context, Awad and Ghaziri (2004: 33) describe intelligence as “the capacity to acquire and apply knowledge”. Cleaver (1987: 29) argued that information can be data until it is used to resolve uncertainty. Walter (1994: 112) mentioned that accurate information helps people make decisions and solve problems. The study uses Kaniki’s (2001) definition as the acceptable meaning of the concept of information for the purpose of this research. Kaniki (2001: 191) “defines and contextualises information as ideas, facts, and imaginative works of the mind and data of value, potentially useful in decision making, question answering and problem solving”.

McCreadie and Rice (1999: 46) consider four major assumptions about information and these include information as commodity or resource, as data in the environment, as representation of knowledge, and as a part of the communication process. Pareek and Rana (2013: 1) noted that academicians, researchers and students all need relevant and up-to-date information for their research needs. In other words, it should be noted that no successful research work is possible without use of accurate information. Case (2012: 46) describes information as whatever appears

significant to a human being, whether conceiving from an internal world or external environment. Hawkins (1987: 68) and Carr (2007: ix) also considered information as a commodity with the highest possible value. Vickery and Vickery (2004: 27) then highlighted that “information is a peculiar commodity”. Elyakov (2010: 63) further mentioned that “in many cases, information turns into a priority commodity but its creation often requires considerable costs and the efforts of highly skilled-specialists”.

This study agrees with the reasons briefly outlined by Bitso (2011: 18) related to the problems and complexities pertaining to the concept of information such as the fact that information is too vast a concept to define and examine. In this context, this study also considered the following additional complexities:

- Weller (2008: 11) provides that “information faces the problematic issue of definition”.
- No one seems to know exactly what information is (Fox 1983: 3).
- Information must not be confused with meaning (Weaver 1949: 8).
- Information means any difference that makes a difference to a conscious, human mind (Bateson 1972: 453).
- Dervin and Nilan (1986: 16) observe that information is seen as something constructed by human beings.
- Lasch (1995: 162) states that information is usually perceived as the precondition of debate, and it is better described as its by-product.
- Taylor (1991: 221) indicates that information is the product of certain element of the information use environment. It generally reflects the assumptions made by a defined group of people concerning the nature of their work related tasks.
- Smith (1991: 85) describes information as a property of matter, any message or document used for communication purpose.
- Kuhlthau (2008: 68) argues that “the impact of information is what the user is interested in and what motivates the information seeking”.
- Case (2012: 56-57) discusses five problematic issues in defining the term ‘information’. The discussion deals with the following assumptions that information must reflect utility, physicality, structure/procedure, intentionality, and truth.

- Lane, Chisholm, and Mateer (2000: 1) further explain that “information is what we need to know, when we need to know it”.

### **1.10.2 Information needs**

Nicholas (2000: 20) notes that “information needs arise when a person recognises a gap in his/her state of knowledge and wishes to resolve the anomaly” as well as also reviewed by Belkin (1980: 182). Ingwersen and Järvelin (2005: 20) note that “information need signifies a consciously identified gap in the knowledge available to an actor”. Wilson (1997: 657) criticised information need in the way that since it takes place in the mind of the individual, it is then not directly observable and information need is considered as subjective as information processing. Ikoja-Odongo and Mostert (2006: 147) argued that information need may either involve general or specific information of which general information refers to current information on topics of interest, while specific information encompasses finding solutions, and problem solving.

Wilson (1981: 6) mentioned that the use of information can lead to the satisfaction of a more perceived need and this line of thinking leads to Wilson’s point of view to argue that information is fairly a secondary need rather than a basic need. However, Green (1990: 65-67) has discussed four multiplicities of need and these include: first, a need is always instrumental because it involves reaching an anticipated goal. Second, a need is usually contestable as well as it differs from a want. Third, a need is related to the concept of necessity. Fourth, a need is not always necessary a state of mind because a need may not be well recognised or misunderstood by the inquirer. Fourie (2010: 35) supports Green’s fourth characteristic of a need and she states that “information needs are not always recognised”. Allen (2011: 2165) perceives that “an explicit information need activates a conscious analytical process of information seeking”. In this context, Yi (2007: 671) mentioned that understanding and detecting the international students’ problems and difficulties are central skills for academic service providers, such as academic librarians, faculty staff, and educators in meeting information needs of international students.

### **1.10.3 Information-seeking behaviour**

Wilson (2000: 49) defines information seeking behaviour as follows:

“It is the purposive seeking for information as a consequence of a need to satisfy some goal. In the course of seeking, the individual may interact with manual information systems such as a newspaper or a library or with computer-based systems such as the World Wide Web”.

McKenzie (2003: 19) notes that during the information seeking process, people implement various strategies in a purposive way to meet an information gap. Kuhlthau (2008: 68) claims that the main objective of information seeking is related to accomplish the task that initiated the search, not simply the collection of information as an end in itself. For the purpose of this study the educational task becomes a major concern during the information seeking process undertaken by international postgraduate students. Educational tasks may then involve some key educational elements such as academic research, language issues, for example, English language competence, and career decisions or, for example, selecting the field of specialisation among others from the Humanities/Arts.

Wilson’s (2000: 49) definition of information seeking behaviour, is generally supported by Prabhavathi (2011: 34) and is adopted for the purpose of this study, in the sense that, international postgraduate students frequently seek information with the main purpose of satisfying academic needs or other related everyday life needs. During this information seeking process, they tend to consult both printed and electronic resources. International postgraduate students interact with information professionals such as academic librarians or supervisors with a specific purpose in mind; and they also browse the Internet or web-based information resources which may involve an academic and non-academic activity.

### **1.10.4 Information behaviour**

Wilson (2000: 49) defines information behaviour as “the totality of human behaviour in relation to sources and channels of information, including both active and passive information-seeking and information use”. Therefore, Case (2007: 81) considered information behaviour as an

umbrella term dominantly used in the LIS field. In this context, Stilwell (2010: 3) indicated that information behaviour refers to a broader term that covers information seeking behaviour, information needs, information searching and information use. To corroborate this view, Fisher and Julien (2009: 317) argue that information behaviour focuses on people's information needs, specifically how they seek, manage, give and use information, either purposefully or passively, for various work-tasks related to their everyday lives. Hence, the definition of Wilson's is accepted for information behaviour for the purpose of this study.

### **1.10.5 Information sources**

Case (2007: 8) noted that "people use formal sources rarely, instead gathering and relying on informal sources, chiefly friends and family throughout their lives". Fisher and Julien (2009: 332) note that interpersonal and the Internet represent two types of information sources that dominate the literature in information behaviour related studies. Barjak (2006: 1352) described heavy use of the Internet for scholarly communication across disciplines, while interpersonal information seeking has been investigated by Xu, Tan, and Yang (2006). For instance, Taylor (1991: 228) added that "personal dialogue will help to clarify both need and response, and hence to provide more useful information". Agarwal, Xu, and Poo (2011: 1087) noted that the principle of least-effort emphasises that people prefer sources that are easily accessible and pay less attention to source quality. Wilson (1997: 561-562) indicates that there are three important characteristics of a good information source and these include:

- **Accessibility:** information source is expected to be easily accessible to a user.
- **Credibility:** information source is assumed to be reliable in the quality and accuracy of information delivered to a user.
- **Channel of communication:** even though it is not strictly a characteristic of source as well as the first two features (accessibility and credibility), but source can reflect the proper channel to be used in order to effectively communicate or deliver a message.

Agarwal, Xu, and Poo (2011: 1088) further identify six different types of information sources and these include face-to-face, letters/snail mails, phone/online chat, email/online forum, books/manuals, and online information. For the purpose of this study, an information source is

considered as something that contains information. Yi (2007: 667) argued that “the resources and services that qualify for academic libraries are based on faculty, staff, and student information needs research and analysis in changing situations”.

#### **1.10.6 Information use**

Wilson (2000: 50) argues that information use behaviour “consists of the physical and mental acts involved in incorporating the information found in the person’s existing knowledge base”. In other words, Case (2002: 258) observes that “information needs and uses need to be examined within the work, organisational, and social settings of the users”. Choo (2006: 65) indicated that “the outcome of information use is a change in the individual’s capacity to act”. McKenzie (2003: 29) notes that there is a connection between information and communication within the information science discipline. Hollnagel (1980: 1984) indicated that “information science is concerned with the use of information by humans”. Rioux (2005: 171) described information use as a useful communicative tool to share information, and this communication process may lead to acquire other information or enable individuals to address some information needs. People search information from multiple sources and they use information received in different ways (Byström and Hansen 2005: 1055). For the purpose of the study, the term ‘use’ refers to locating and obtaining information to address information needs.

#### **1.10.7 Information exchange or transfer**

Information requirements are more applied when information is exchanged and it comprises some aspects such as accessibility and relevance of information (Järvelin and Ingwersen 2004: 1). Lampert (2008: 6) notes that “access and exchange of information is nearly instantaneous”. This means that having access to information is very important for end-users (De la Flor and Ramsden 2004: 133). Idiegbeyan-Ose and Akpoghome (2009: 22) indicated that people use various communication channels in order to transfer relevant messages from a reliable source to the particular user of the message (receiver). Therefore, Pauleen and Yoong (2001: 194) indicated that communication channels are basically divided into three categories and these are face-to-face, conventional and Internet-based. For example, Nkosi, Leach, and Hoskins (2012: 79) revealed that many academic staff utilised verbal communication methods to encourage

students to use library resources consistently. Hughes (2005: 172) found that international students often ask help from librarians when they are using online electronic resources, they consult their lectures and supervisors either physically or through network communication as well as they also share information with their colleagues.

#### **1.10.8 Information system or service**

Prabhavathi (2011: 34) indicates that in the course of seeking, a person may interact with manual information systems, for example, a library, or with computer-based systems such as the Web. Wilson (2006: 661) also notes two subsystems generally occur within the information system and these are the mediator (human being) and the technology. Brophy (2000: 169) maintained that information services continue to reflect a wide range of interconnected services such as Internet services, web sources and commercial databases. Scheeren (2010: 10) states that “collateral to the Internet is the use of electronic databases, which use the Internet for access but provide information that is always credible”. Hadebe and Hoskins (2010: 60) argued that other than the use of library’s electronic databases, master’s students have used alternative resources which were freely accessible through browsing the web. Bane and Milheim (1995: 1) mentioned that the “Web is the largest electronic information resource in the world”.

Mehra and Bilal (2008) acknowledged improvements to information systems for international graduate students, based on empirical evidence. In this context, Wilson (2006: 666) suggested that information specialists, including librarians and other services providers “should have better understanding of the user and be able to design more effective information systems”. Ju (2006: 354) further indicates that the core benefit of information services is their capacity to help the users, especially students, to get the right information through enhancing their academic understanding and efficiency. Cloutier (2005: 333) identifies two main types of information services and these include research services and document delivery services. Interestingly both types are fundamentally used by graduate students, including international students, within the academic environment especially during the process of writing their theses/dissertations.

### **1.11 Ethical considerations**

The study was accepted and received a full ethical clearance certificate (Appendix 15) from the relevant university ethical committees as recommended in South African context by Wassenaar (2006: 61). The provision of full ethical clearance was a positive result of a long formal process followed by the researcher. This process involved three letters sent to universities requesting permission to go to the field to collect data (Appendices 8, 9 and 10). Gatekeeper's formal letters were also obtained from the Registrars Offices of three universities (Appendices 11, 12 and 13). The researcher's university (UKZN) offered provisional ethical clearance (Appendix 14). Therefore, a full ethical clearance was also obtained (Appendix 15). The researcher sought informed consent from respondents which was obtained (Israel and Hay 2006). The covering letters attached to each data collection instrument helps to comprehensively explain the purpose of the study with the aim of seeking voluntary informed consent from respondents (Fisher and Anushko 2008: 99). Since participants were mature (not minors) and intellectual people, they were then able to voluntarily make informed decisions by reading and signing the informed consent. Furthermore, they were fortunately literate graduate respondents.

The survey questionnaires were accorded codes and anonymous captured by systematically following numerical order. The semi-structured interview assigned 'each participant' a code according to the order of interviews. The interview and focus group discussions were recorded using a voice recorder and researcher's laptop (locked with double passwords) and the permission was notably requested from participants before starting to record interviews. The anonymity was maintained throughout. The privacy and confidentiality were also considered and they were essentially achieved by using coded transcripts. In other words, pseudonyms were strategically used to highlight satisfactory information without specifying exactly the name of the respondent.

### **1.12 Thesis structure**

The thesis was coherently structured according to following seven chapters:



## **Chapter One: Introducing the study**

This chapter delivers the introduction and overview of the study. It provides the background to the study and an outline of the research problem. This is followed by the objectives of the study and research questions underpinning the study. The chapter briefly covers the theoretical framework, the methodology used in the study, significance, scope and limitations of the study. It also provides the definitions of key terms and the thesis structure.

## **Chapter Two: Theoretical framework**

This chapter discusses theoretical framework of the study. It first covers literature on information seeking models and puts forward the Wilson's (1999) model of information behaviour used for the study. It explains the model and justifies the applicability of the model to the present study.

## **Chapter Three: Literature review**

This chapter provides a review of the literature related to the study. It mainly includes all related studies previously done in relation to the information seeking behaviour of international students. It then focuses on identifying the information needs related to their academic and personal needs. It also reviews their information seeking behaviour and sources used. The chapter determines the main problems they are facing while they are acquiring information and it outlines the various information services used.

## **Chapter Four: Research methodology**

This chapter describes the research design and methodology. It identifies the population and sampling techniques applied in the study. Amongst other issues, it discusses the approach adopted, the data collection procedures, the validity and reliability of the instruments used in the data collection process including both qualitative and quantitative data. It also discusses the data analysis process which includes SPSS and thematic content analysis.

## **Chapter Five: Presentation of results**

This chapter presents and analyses the data collected from all data collections tools used for the purpose of the study. These included data from questionnaires for students, focus group discussions with students and data collected from interviews with the Heads of International Student Office at each university. Research data are presented in the form of tables and figures. Frequencies and percentages facilitate the proper presentation and understanding of the research data for further discussion purposes.

## **Chapter Six: Discussion and interpretation of findings**

This chapter discusses the research findings as presented in Chapter Five in light of the literature review and the research questions underpinning the study. The selected theoretical framework of the study which is Wilson's (1999) model of information behaviour created a framework for interpretation of the research data collected. In addition, the findings of previous related information seeking behaviour studies reviewed in Chapter Three of this study were further compared with the findings of the study in order to gain insights into the information seeking behaviour of the international students.

## **Chapter Seven: Summary of findings, conclusions and recommendations**

This chapter includes the summary of findings, conclusion and recommendations of the study in line with the research questions underpinning the study and results of the study as they are discussed and interpreted in Chapter Six. In this chapter, the conclusion is based on the summary of findings and then leads to the formulation of relevant recommendations with suggestions for further studies. The implications for the theoretical framework and practice of the study are briefly discussed.

### **1.13 Summary of the chapter**

Chapter One introduces the entire study and it reveals the statement of the problem. It establishes research objectives, questions underpinning the study and it briefly described the research methodology that guided the study. The survey research applies mixed methods which involves both a qualitative and quantitative approach. Therefore, the research data are triangulated. The chapter briefly indicates the population of the study, data collection process and data analysis techniques. The data collection methods include a self-administered questionnaire, semi-structured interview and focus group discussion. SPSS was used to analyse the quantitative data from the questionnaire, while thematic content analysis was used to analyse the qualitative data. The significance of the study, scope and limitations followed. The key terms are defined for the purpose of this study and the structure of the thesis is then outlined. This chapter is followed by Chapter Two which discusses the theoretical framework of the study.

## **CHAPTER TWO: THEORETICAL FRAMEWORK**

### **2.1 Introduction**

A theoretical framework influences how researchers design a study and how they collect and analyse the data (Bertram 2004: 143). Bless and Higson-Smith (1995: 23) argued that “theory serves as an orientation for gathering facts since it specifies the types of facts to be systematically observed”. Babbie (2011: 33) indicates that “theories make sense of observed patterns in ways that can suggest other possibilities”. Punch (2005: 16) states that the essential idea of ‘theory’ is to attempt to explain whatever is being studied, with the explanation being understood in more abstract terms than the terms used to describe it. In this regard, Anfara and Mertz (2006: xiv) acknowledged that it entails effort to accurately understand theory and maintain its relationship with the research process. Chapter Two presents the information behaviour models found to be relevant for this study and it particularly discusses Wilson’s (1999) model of information behaviour as the specific model underpinning the present study.

This chapter revisits the research objectives and systematically follows the key questions underpinning the current study as they are outlined in Chapter One (sections 1.4 and 1.5). This was done for the purpose of showing the relationship between attributes or core variables of the theoretical framework with objectives, sub-questions and data collection instruments used (Table 2.1). This chapter then is divided into the following subsections:

- Information behaviour models;
- Wilson’s (1999) model of information behaviour;
- Literature review of Wilson’s (1999) model;
- Other studies based on the Wilson’s (1999) model; and
- Applicability of Wilson’s (1999) model to the present study.

### **2.2 Information behaviour models**

Savolainen (2007: 112) maintained that information behaviour assists in understanding the way people look for relevant information that can be used in different contexts. Case (2002: 13)

defines context as the precise combination of person and situation that helps to frame research. To corroborate this view, Dey (2001: 4) and Cool (2001: 7) discussed the conceptual relationships between context and situation. Sonnenwald (1999: 180) explained that a context is a broad term compared to a situation and as a result various contexts reflect multiple types of situations. Talja, Keso, and Pietilainen (1999) examined the notion of context in relation to information seeking behaviour in their study. Agarwal (2011: 48) states that “despite the seemingly widespread and growing attention to the notion of context in information seeking, the concept remains ill-defined and inconsistently applied”. Markless (2009: 30) underlines that “context in information-related behaviour is recognised as multi-dimensional; with different facets reflecting features of the task, characteristics of the learner and features of the system”. On the other hand, Sonnenwald (1999: 180) defines a situation as “a set of related activities or a set of related stories that occurs over time”. McCreadie and Rice (1999: 59) mentioned that situation stands for the particular set of circumstances from which a need for information arises. There seems to be no consensus on these two terminologies. However, Dourish (2004: 25) notes that “context is managed moment by moment, achieved by those carrying out some activity together”. Savolainen (2006: 113) concludes that the “context of information seeking is something that changes over time”.

Within information behaviour literature, the current study considered the term ‘context’ as it was reflected by a range of well-known researchers in the LIS field, namely Cool and Spink (2002); Case (2002, 2007, 2012); Ingwersen and Järvelin (2005); Choo (2009); Savolainen (2007, 2009); Julien, Pecoskie, and Reed (2011) and Stilwell (2010). In relation to the term ‘context’ therefore, the present study more precisely followed Case’s (2002: 13) point of view as elaborated above. It is very important to review certain information behaviour models that are considered to play a vital role while choosing the appropriate theoretical framework for the purpose of the current study (Ikoja-Odongo and Mostert 2006: 154). Bertram (2004: 143) observed that a theoretical framework influences how researchers design a study and how they collect and analyse the data. Creswell (2003: 222) commented on the main cause of this influence, explaining that the theoretical framework pictures the researcher’s standpoints in relation to the present topic, and these are initially dominated by “personal history, experience, culture, gender, and class perspectives”. The researcher has considered the theoretical

framework as a well-developed explanation for events (Vithal and Jansen 2004: 19). This was because it helped to associate the attributes with the research objectives and key questions underpinning the study (section 2.6).

Many models are derived from theories (Luyten and Blatt 2011) and it is then necessary to better understand the meaning and the application of the term ‘theory’ at the beginning stage before selecting the appropriate model for the study as recommended by Leckie, Pettigrew, and Sylvain (1996) and Johnson (2003). In this regard, Kelly (1963: 18) states that “a theory provides a basis for an active approach to life”. Busha and Harter (1980:13) basically define theory as “assumptions, definitions, and propositions which explain a group of observed facts or phenomena in a field or discipline”. The current study was conducted within the LIS field. Chaffee (1991: 14) claims that “theory results from interplay among ideas, evidence, and inference”. Nevertheless, Case (2007: 148) highlights that scholars recognise that there is no single definition of ‘theory’ within information seeking behaviour perspectives which can precisely accommodate each and every study under the LIS sub-fields. For the purpose of the present study, Reynold’s second definition of a term ‘theory’ was used and supported by the detail provided in Busha and Harter (1980:13) and Pring (2000: 124-125). Reynolds (1971: 10-11) opined that the term ‘theory’ is used in at least four different senses and these are:

- i. A set of laws that are well-supported empirical generalisations;
- ii. An interrelated set of definitions, axioms, and propositions;
- iii. Descriptions of causal processes; or
- iv. Vague concepts, untested hypotheses, or prescriptions of desirable social behaviours.

Creswell (1994: 94) highlighted that “theories might help shape the initial research questions”. Vithal and Jansen (2004) and Blaikie (2010: 62) indicated that research questions are basically formulated from the main research problem and this transforming process is also popular for postgraduate academic research. Grix and Watkins (2010: 150) noted that investigations should generally gain guidance from the use of relevant questions. Case (2012: 168) observes that even though theory and paradigm are sometimes interchangeably used during the research process “some researchers prefer to avoid the term paradigm as much as possible”. However, Babbie (2011: 32) describes paradigm as “a model or a framework of observation and understanding,

which shapes both what we see and how we understand it”. Therefore, Anfara and Mertz (2006: xiv) acknowledged that “understanding theory and its relationship to the research process requires effort”. It was along these lines that Chatman (1996: 205) noted that “working with conceptual frameworks and empirical research has never been easy”. Creswell (2009: 57) further maintained that the theory section has to be clarified especially in the postgraduate research process.

McKechnie, Pettigrew, and Joyce (2000: 57) admitted that “human information behaviour, in comparison with other LIS sub-fields, is where researchers are among the highest users of theory”. To corroborate this view, Bates (2005: 3) perceived that “models are most useful at the description and prediction stages of understanding a phenomenon”. Although there is a large number of information behaviour models generally reviewed and others specifically applied to the LIS sub-fields as noted by Pettigrew and McKechnie (2001); Case (2002, 2006, 2007, 2012); Fisher, Erdelez, and McKechnie (2005); Jeong and Kim (2005) and Fisher and Julien (2009); argue however that it is still a core task of a researcher to identify and apply the most appropriate model reviewed that can be used for the purpose of the current study as reported by Stilwell (2010), Ikoja-Odongo and Mostert (2006), Byström and Hansen (2005). In other words, Du Preez (2008: 29) noted that “the models that have been developed to date by information behaviour researchers are not necessarily applicable to all user groups”. Even though it is not compulsory to discuss every model in detail it is important to acknowledge the existence of key information seeking behaviour related models in the literature. Therefore the present study identified some of the influential information behaviour models of different groups of authors and these models include:

#### I. General information behaviour models

- Belkin (1980) model of Anomalous States of Knowledge (ASK).
- Wilson (1981, 1999) model of information behaviour.
- Dervin (1983) sense-making approach to information seeking.
- Wilson and Walsh (1996) model of information behaviour.

#### II. Information seeking models

- Taylor (1968) model of information seeking.
- Krikelas (1983) model of information seeking.

- Ellis (1989, 2005) model of information seeking behaviour.
- Savolainen (1995) everyday life information seeking model.
- Savolainen (2006) schematic model of information seeking.

### III. Information searching and retrieval models

- Kuhlthau (1989, 1991, 1993, 1997, 1999, and 2004) information search process model.
- Ingwersen (1996, 1999) information retrieval process model.
- Marland (1981) and Irving (1986) information skills model.

### IV. Digital information related models

- Marchionini (1995) model of information seeking in electronic environments.
- Choo (1999, 2000) model of information seeking on the web.

### V. Discipline or task-related information behaviour models

- Byström and Järvelin (1995) task complexity and information seeking and use.
- Leckie, Pettigrew, and Sylvain (1996) general model of the information seeking of professionals.

Case (2007: 6) maintains that in the beginning of the 1980s, studies had begun to shift toward the contemporary emphasis on the individual as information user. Belkin's (1980) model called Anomalous States of Knowledge 'ASK' emphasised the link between an information user and the information expected to be received from an information retrieval system (Belkin 1980: 135). Information seeking studies have frequently looked at how individuals go about finding the resources that they need in order to satisfy their information needs (Andersen 2002). Therefore, some models concerning information need and seeking behaviour of different groups of people have been developed as indicated earlier on in Chapter One (section 1.6). In addition, information retrieval studies include mainly Ingwersen (1992, 1999); Ingwersen and Järvelin (2005); Kuhlthau (1997, 1999, 2004) and Beaulieu (2003).



Holliday and Li (2004: 362) have successfully used Kuhlthau's (1993) Information Search Process 'ISP' model, with the aim of discussing clearly student search strategies. Cool (2001: 5) indicated that "in order to better understand information-seeking behaviour (ISB) and information retrieval (IR) interaction, greater attention needs to be directed to the information spaces within which these activities are embedded". Reddy and Jansen (2008: 259) noted particularly that "information seeking is still seen as an individual activity" and this situation has been also reported by Sonnenwald and Pierce (2000: 464). According to Leckie, Pettigrew and Sylvain (1996), there are two main reasons: the first is that many information seeking models focus on the conventional pattern of interaction between a single user and technology, and the second reason which is also supported by Tidline (2005: 114-115) is that information seeking models place emphasis on individual, rather than focus on collaborative work.

### **2.3 Wilson's (1999) model of information behaviour**

According to Wilson (1999: 250), since the Royal Society Scientific Information Conference of 1948 some studies have been carried out focusing on user needs, information needs, and information-seeking behaviour. Wilson (1999: 250) reported that there were few dominant studies at the time he was developing his general model of information behaviour. These included: user needs (Stone 1982 and Westbrook 1993), information needs and uses (Paisley 1968; Dervin and Nilan 1986 and Wilson 1994), and information behaviour (Wilson 1981, 1997, and Wilson and Walsh 1996). Spink and Cole (2004) indicated that the notion of information behaviour embodies a wide range of information seeking patterns. Case (2007: 120) highlighted that "information behaviour approaches are typically regarded as models because they focus on specific problems". Wilson (1999: 250) then indicates that models can be presented conceptually or theoretically and as a result, using a model allows the general objectives of the study to be achieved and the research questions to be effectively answered.

Ikoja-Odongo and Mostert (2006: 154) pointed out that each model has its own weaknesses and strengths and not all information seeking models are based on empirical tests. It was therefore a critical task for the researcher to select the relevant model and determine whether the selected model was appropriate for the current study (Case 2012 and Stilwell 2010). Clemens and

Cushing (2010: 1) noted that “theories of information behaviour often address cognitive influences such as problem-solving, mental models, and affect heuristics”. The current study gained its roots from theories of information behaviour presented in a book edited by Fisher, Erdelez, and McKechnie (2005). It included various models of information behaviour, namely Ellis’s (1989) model of information seeking behaviour, Krikelas’ (1983) model of information seeking, and Wilson’s (1999) general model of information behaviour.

Tight (2012: 10) highlighted that “there is, arguably, always a theoretical framework present implicitly even if the author does not acknowledge it”. Thus, within the theoretical framework of information seeking behaviour, the present study explicitly adopted the theoretical framework of information behaviour (Wilson 1999) as represented and updated by Wilson’s model from 1981 (earliest) to 1999 (latest and originally published in 1996). In Wilson’s 1981 model, feedback is considered to be an essential element of the total information seeking process (Wilson 1981: 2). Wilson’s 1996 version of his model is associated with the fact that the action to satisfy a need for information is related to stress-coping theory (Folkman 1984) and also, the decision to search information resources is linked with the theory of self-efficacy (Bandura 1977, 1986, 1989, 1997, as well as reported by Miwa 2005: 55 and applied by Ren 2001: 283). In addition, Wilson’s 1996 model is linked with the theory of risk-reward (Settle and Alreck 1989). Bandura (1977: 2) indicates that in general self-efficacy refers to “beliefs in one’s capabilities to organise and execute the courses of action required in managing prospective situations”. Poyrazli et al. (2002) conducted a study that focused on examining the relation between assertiveness, academic self-efficacy, and psychosocial adjustment among international graduate students. The study revealed that international graduate students with higher levels of academic self-efficacy testified fewer adjustment problems. In addition, Trice (2004: 683) observed that international students’ length of stay at a host country (longer) often had a positive outcome on their social interaction with host students compare to newcomers.

Case (2007: 123) observes that Wilson’s (1996) model explains three aspects of information seeking and these include: (a) Why information seeking is more likely to occur in response to some needs more than others (stress/ coping theory); (b) why some information sources get more use than others (risk/ reward theory); (c) why people’s perceptions of their own efficacy

influence their success in meeting an information goal (social learning theory). Therefore, Wilson's (1999) model is a general model and can assist in better understanding the more vital features of human behaviour including international students. From their viewpoints Ingwersen and Järvelin (2005: 67) noted that "Wilson's model is a general summary model". Wilson (2005: 31) indicated that Wilson's (1999) general model involves three main views of information seeking and these include: the context of the seeker, the system utilised (manually or electronically) and then information resources that might be drawn upon. In other words, Cool (2001: 9) highlights that "when people interact with information resources, an interaction situation is constructed".

Wilson's (1999) model of information behaviour was specifically applied for the purpose of the current study. Case (2002: 112) asserts that "a model describes a relationship among concepts but is tied more closely to the real world". In this model, information need, information seeking, information exchange, and information use, amongst other attributes, are clearly integrated (shown in a flow diagram). It is important to note that, as Chowdhury and Chowdhury (2011: 26) argued, an "information need is not a primary need, but a secondary need that arises out of another need". Wilson's (1999) model is initially based upon two key points. First, the model considers an information need as a secondary need that arises out of a more basic or primary need; and second, during the process of discovering information to satisfy a need, the information seeker tends to meet with barriers of different kinds and these barriers include: personal, interpersonal, and environmental barriers (Wilson 1999: 252). For example, Wilson (1997: 559) notes that "interpersonal problems are likely to arise whenever the information source is a person".

Wilson's (1999) model suggests how information needs arise and it identifies the factors that can prevent the actual search for information. Some factors are resource based and these include: availability of information, awareness of availability, issues related to the ease of use of information resources (Kaniki 2001). In terms of creating awareness, Cassell, and Hiremath (2013: 10) and Lawson (2000: 45) consistently underline the importance of marketing and promotion of available library resources. Ikoja-Odongo and Mostert (2006) briefly identified two main factors that may create barriers to obtaining useful information such as internal

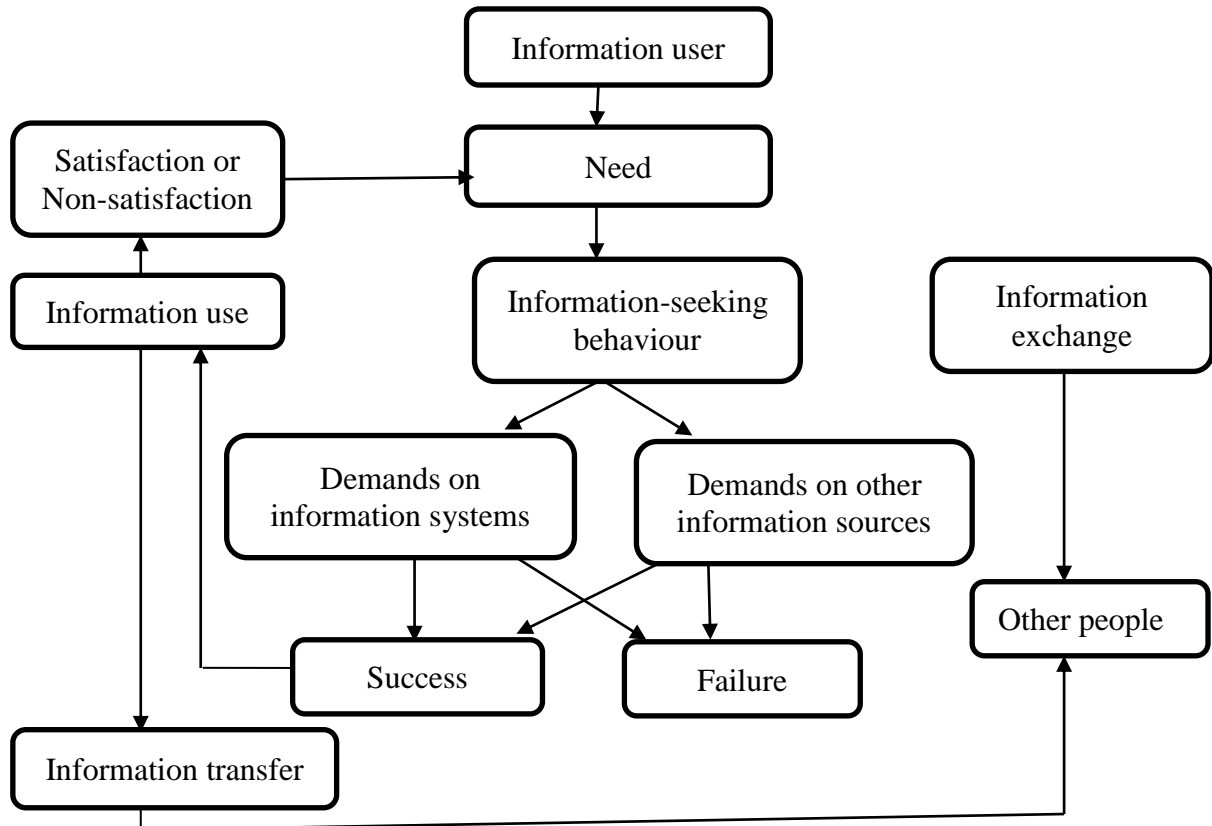
factors (personal) and external factors (environmental), and these factors were also underlined in Wilson's (1999) model. According to Aina (2004), there are other factors such as high cost, illiteracy and lack of information and communication technology (ICT) infrastructure especially in the current technology age.

Holliday and Li (2004: 363) argued that although undergraduate students often have the perception that information seeking should be an easy task; the reality is that they are often confronted with the complexities of information seeking during the acquisition of information. This misconception may arguably also apply to postgraduate students depending on their knowledge and background with the use of technology facilities. Ajiboye and Tella (2007: 41) maintained that the way students, including international students, organise their learning and search for information is crucial to their overall performance. Thus, an investigation of information seeking patterns should help achieve a better understanding of university students' information seeking behaviour in relation to the demands on existing information systems and information service delivery. Buckland (1991: 109) argues that for an individual to become well informed to some extent refers to the "factors that are situational and external to the information system". According to Williamson (1998), this leads to considering other sources such as family, friends, and colleagues, who play a vital role in the acquisition of information, even though they are not naturally components of the information system.

Case (2002: 112) notes that "theories and models are simplified versions of reality, yet models typically make their content more concrete through a diagram of some sort". In this context, Wilson (1999: 250) indicates that:

"Most models in the general field of information behaviour are of the former variety: they are statements, often in the form of diagrams that attempt to describe an information-seeking activity, the causes and consequences of that activity, or the relationships among stages in information-seeking behavior".

The diagram of Wilson's (1999) model provided below (Figure 2.1) helps to show how the core variables or attributes of this model have been applied to the current study as the theoretical framework.



**Figure 2.1:** Wilson's (1999) model of information behaviour

**Source:** Wilson (1999: 251)

Wilson (1999: 251) points out that the scope of the diagram (Figure 2.1) is much greater than merely about the concept of information needs and it is intended to cover all vital elements involved in the information behaviour process. The strength of this model is concerned with the fact that Wilson's model does not simply designate a sequence of events, but it goes beyond and it depicts a sequence of human behaviour by referring to relevant variables. In this regard, Miles and Huberman (1994: 18) perceived that a theoretical model contributes to correctly understanding the key variables under study. The model has twelve attributes: information user, information need, information seeking behaviour, demands on information systems and other information sources, success or failure, information use, information exchange or transfer, other people, and satisfaction or non-satisfaction.

Wilson's (1999) model indicates that an information user often has different needs of which many information seeking patterns are involved in the process of consulting various sources of information. In the same vein, Marouf and Anwar (2010: 533) viewed Dervin and Nilan's (1986) information seeking behaviour model as also having elements of demands on systems and other sources. Williamson highlighted the 'ecological theory of human information behaviour' and then explained that people generally seek information from multiple sources and systems (Williamson 2005: 230). It is evident that according to Wilson's (1999) model, information needs determine the information systems and sources to be used and needs also influence the ways in which the information would be used (information use) or exchanged (information exchange). According to Wilson (1999: 251), the success of the information seeking process explains the use of information and it then justifies the satisfaction of a perceived need. Therefore, an information user may personally utilise information or he/she may exchange information received with other people (information transfer). On the other hand, Wilson (1999: 251) adds that the failure of the seeking process basically leads to a new research process (re-initiate) regardless the stage/step at which the information seeker has experienced the failure while seeking information in order to satisfy a perceived need.

Wilson's (1999) model reveals that only an expressed need can be identified and satisfied by information users (students) either themselves or with support from other people, frequently information professionals. Grunig (1989: 209) then notes that need occurs as an inner motivation state that often involves action. According to Case (2007), there are various types of need and these include a conscious need (expressed) and an unconscious need (unexpressed). Davies and Harrison (2007: 79) state that expressed or articulated need is an actual perceived need and it normally demands an answer, but unexpressed needs are not recognised as information needs. Chowdhury and Chowdhury (2011: 29) and Rhode (1986: 52) noted that where information needs remain frequently unexpressed or poorly expressed, information specialists should appropriately support information users/seekers. Williamson (1998: 23) revealed that people identify unconscious needs only when they discover useful information. Consequently, Henefer and Fulton (2005: 226) pointed out that unconscious needs do not basically lead to active information seeking behaviour. Devadason and Lingan (1997: 41)

argued that real needs may go unexpressed in cases where a seeker observes them to be unrealistic.

Lwoga, Ngulube and Stilwell (2010: 84) indicated that “information needs can be recognised by the information seeker or by the information expert on behalf of the information seeker”, but according to Kaniki (2001), in most cases the information expert and end-user often work together in order to establish the actual information needs. In this context, international postgraduate students are known as information seekers especially while they are carrying out their research projects (‘thesis or dissertations’) in the sense that they have different information needs to be satisfied. International students then frequently work hand in hand with the information experts or specialists. Information experts here include chiefly librarians both reference and subject librarians, lecturers and supervisors. Taylor (1968) considered the contexts in which information needs are expressed and these represent four main points along the need continuum: i) an actual but unexpressed need; ii) a conscious description of the need; iii) a formal statement of the need; and iv) a compromised need. The current study has focused on expressed need not only because it is part of Wilson’s (1996, 1999) models but it has also been highlighted (above) by Davies and Harrison (2007) and Taylor (1968).

Wilson (1999: 251) notes that an individual makes use of the information found and may either fully or partially satisfy the perceived need. According to Case (2012), the need or the problem may be acknowledged, but an attempt may not necessarily be made to answer it or to solve the recognised problem. In other words, “recognition of uncertainty does not always lead to action” (Case 2012: 82). In this regard, Adams (2010: 69) considers uncertainty as “a cognitive condition that can lead to an affective state of anxiety and lack of confidence”. In the early stage of information seeking, Wilson (1977: 44) maintains that an interest or a concern may be passive and it might not necessarily cause an individual to seek information. At this point it is the possession of a need which often defines a user. Westbrook (2001: 3) also briefly defines needs as “information requirements of that (user) community”. Case (2012: 5) argues that an information need is a recognition that your knowledge is inadequate to satisfy a goal that you have. It is commonly understood that the need varies amongst the population and is not homogenous. International postgraduate students have diverse needs and for the purpose of the

current study, these needs were divided into two major categories: academic needs and personal needs.

According to Savolainen (2010a), Bronstein and Arbib (2008) searching for information in order to satisfy an information need is a primary activity of everyday life. Savolainen (2010a: 1781) describes everyday life as “a set of attributes characterising relatively stable and recurrent qualities of both work and free time activities”. Hektor (2001: 70) has provided an interesting in-depth discussion of the role of everyday life time horizons as a context of information seeking within which each activity is related to the circumstances of some project. Wilson (1999: 251) argued that users may consult multiple sources of information depending on the nature of information need. For example, during the seeking process, an individual may interact with people face-to-face or electronically (Wilson 2000). After interacting with diverse sources of information, what is predominantly available may likely differ from what a user really needs in order to satisfy his/her perceived need (Taylor 1990), and according to MacIntosh-Murray and Choo (2006), in this case a user may experience dissatisfaction or failure.

Wilson (1999: 251) further notes that formal and informal information sources can basically be consulted by an information user for the purpose of getting to the point of satisfaction (success) of the expressed need. Coming from the environmental scanning perspective, Choo (2002: 85) distinguishes between a formal search and an informal search. A formal search involves systematically retrieving information which is pertinent for a specific purpose or particular issue, while an informal search is relatively unstructured and it has different forms. However, international students enrolled in South African universities undeniably acquire information from both formal sources, for example, from the International Student Office (ISO) and also from informal networks as a means of support and exchange of information, for example, these international students also interact and obtain information from colleagues.

According to Beaulieu (2003); Bawden (2006) and Spink and Cole (2006), information seeking behaviour studies are considered to be one of the main areas of research in user studies. Bouazza (1989: 144) indicated that “the history of user studies goes back to the 1920s”. There were some examples of user and use studies conducted as far back as forty years ago, such as



those by Paisley (1968), Lipetz (1970); Crane (1971); Martyn (1974); Crawford (1978); Cronin (1981); Wilson (1981); Streatfield (1983); Dervin and Nilan (1986); Zaaiman and Roux (1989); and Dervin (1989). Most user and use studies had progressed into examination of the information seeking behaviour of different groups of people, including Fidel (1993); Wang (1999); and Pettigrew, Fidel and Bruce (2001). Durrance et al. (2006: 3) highlighted that Taylor's (1991) study of the information use environment model was influenced by Dervin and Nilan's (1986) review of information needs and uses as the latter focused on shifting from user-orientated to better understanding 'information needs, seeking and use'. Choo's (2006) integrated model of information seeking behaviour incorporates Taylor's (1991) model with Dervin's (1983) model and Kuhlthau's (2004) model of information search process.

The current study was conceived within the field of information behaviour and chiefly within the pattern of understanding information seeking behaviour of the user (Wilson 2008), within its context (Johnson 2003 and Courtright 2007). The above diagram (Figure 2.1) enables us to accept the simplicity and comprehensiveness of the Wilson's model in the sense that it is characterised by a one-dimensional flow-chart in which almost all arrows travelling in one direction. Wilson's model also allows us to consider a strong connection that exists between a 'user' and 'use' rather than merely recognising the role of 'use or system' itself as happened in some traditional approaches applied in information behaviour studies in the late 1970s and in the beginning of 1980s (Wilson 1999: 250).

According to Sharma (1992) and Allen (1996), understanding the user is half the battle in providing information services. Alongside, Dervin and Nilan (1986) argued that system-oriented studies traditionally have not led to improvements in the design of information systems and many recent studies have focused largely on user-oriented systems. The first core variable of Wilson's (1999) model is the 'information user' which is the international student for this study. In other words, the motives and purposes of information users give rise to information use and requirements (Dervin 1992: 64).

Wilson's (1999) model indicates that information users have a need and this need may originate from the previous level of satisfaction or non-satisfaction with acquired information. Wilson's

model shows that once a user recognises a need for information, the next action involves different seeking activities. Basically, a user consults or demands numerous information systems or other sources of information (Wilson 1999: 251). The result of these demands leads either to success/satisfaction due to the useful information received or to failure/dissatisfaction due to unhelpful information or poor service. Krikelas's (1983) model of information seeking behaviour also considered the internal source of information which involves personal memory, direct observations (structured) and recorded (literature). Krikelas's model notes that other people are viewed as external sources which involve human communication (Henefer and Fulton 2005: 228). Interestingly, Wilson (1999: 251) also considers information to be exchanged with other people, a process known as information transfer, in the process of seeking and using acquired information.

Wilson (1999: 251) indicated that the information seeker may or may not be successful at finding relevant information. If successful, the individual then makes use of the information found that may either fully or partially satisfy the need. Although schematically there was lack of a direct arrow key from the 'failure' component to the 'need' component but Wilson (1999: 251) has textually acknowledged that failure to satisfy the perceived need generally leads to repeating the search process and the current study then considered this point of view. Wilson's (1999) model also highlights the information seeking process and provides a feedback loop where the information seeking is thought of as 'iterative' at numerous phases, rather than 'successive' (Wilson 1999: 267). Blagden and Harrington (1990: 13) and McMurdo (1980: 83) discussed issues related to satisfaction of the user. Weiler (2004: 46) further notes that the use of information may lead to the satisfaction or dissatisfaction of the user. Wilson (1999: 250) then describes the model as "a framework for thinking about a problem and may evolve into a statement of the relationships among theoretical propositions". Similarly, Bates (2005:3) believed that a model can correctly guide research within a particular field.

Wilson's (1999) model of information behaviour considers the involvement of other people and various offices through information exchange towards information seeking behaviour. Thus, information seeking behaviour of international students studying in South African universities inevitably involves different people and various offices where information can be obtained.

Wilson's (1999) model is beneficial to those working in LIS field since it draws attention to information users and how they look for information, what they do with the information and how they act when failing to obtain the acquired information at any stage whereby restarting their information seeking/searching process.

#### **2.4 Literature review of Wilson's (1999) model**

Kumar (2011: 38) argued that it is imperative to systematically review a specific model applied to the research study. Wilson (1999: 250) stated there was a reasonable and fundamental criticism by reviewers regarding the lack of a strong body of theory and empirical findings that could build a concrete foundation for further studies in the LIS field. Kelly (1963: 18) and Kuhlthau (2004: xv) describe a theory as "a way of binding together a multiple of facts so that one may comprehend them all at once". Wilson (1999: 250) has taken a step forward and provided three basic reasons that may justify the criticism of reviewers and these include:

- The study of human behaviour was quietly dominated by the use of quantitative research methods based largely on statistical numbers rather than based on opinions or views of participants in a study during the positivist tradition era. For instance, many decisions were simply taken based on the number of library visitors, the number of subscribers to journals and the number of items cited in multiple papers published. Consequently, the quantitative methods have been considered as inefficient and inappropriate in the sense that "very little of this counting revealed insights of value for the development of theory or, indeed, of practice".
- The early researchers in the field of information science did not develop strong links in related research areas that would provide more full-bodied theoretical models of human behaviour. It was evident that the current study would not successfully benefit from the application of traditional models in the same way as it obtained guidance from Wilson's (1999) general model of information behaviour.
- Wilson's (1999) model of information behaviour acknowledges models of information seeking behaviour that had started to develop in the early 1980s. It is in this regard,

Wilson (1999: 250) considered that the general adoption of qualitative research methods has added value to the development of theories and models in social sciences that may assist researchers to carry out accurate studies of information behaviour. A qualitative approach focuses mainly on in-depth insights instead of merely relying on numbers. Thus some scholars namely Wilson (1981); Dervin (1983); Ellis (1989); and Kuhlthau (1991) proposed theories and models that have since been considered as building blocks for future information seeking studies by other researchers within the LIS field including this study.

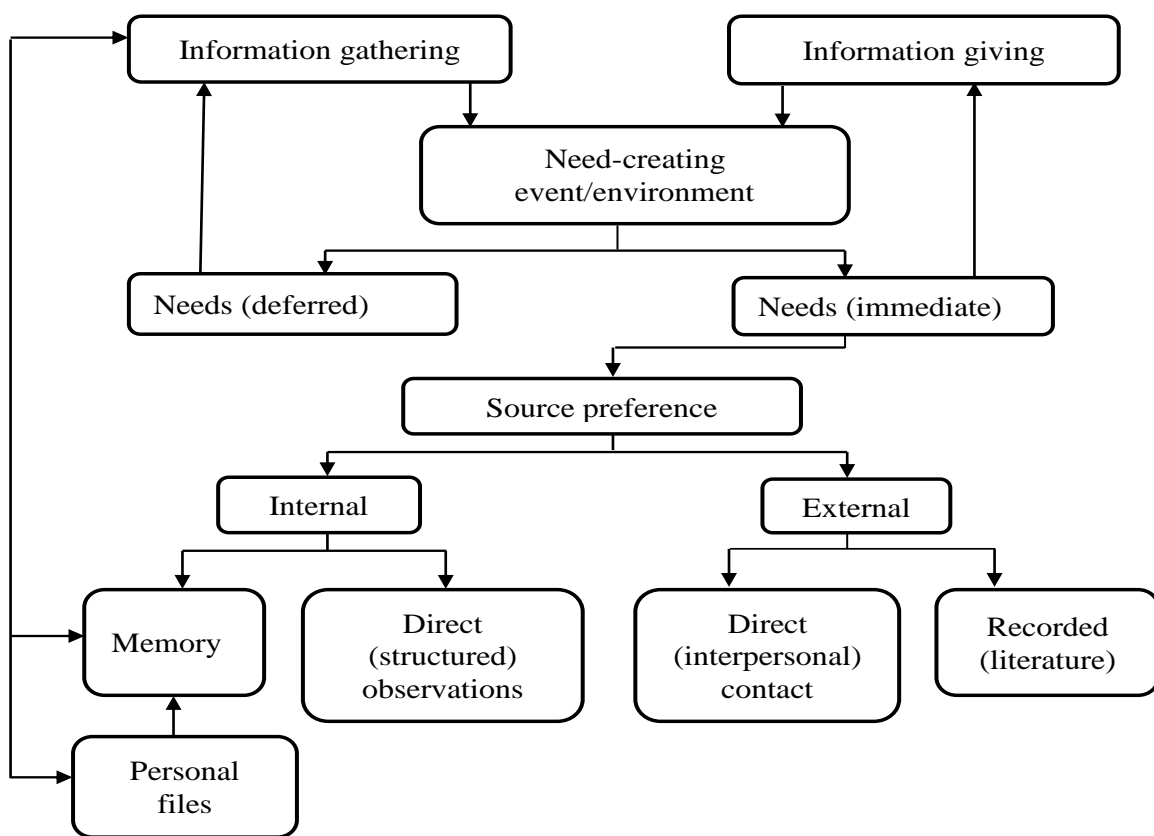
Dervin (1983: 3) defines the sense-making approach as “behaviour both internal (i.e cognitive) and external (i.e. procedural), which allows the individual to construct and design his/her movement through the time-space context”. Dervin (1999) later on criticised the schematic, simplifying, and rationalising conceptions of context. Morris’s (1994) study related to ‘user-centred information service’ has reviewed Dervin’s (1983) sense-making approach and compared the approach with three related approaches (models) which are Belkin’s (1980) Anomalous States of Knowledge ‘ASK’, Taylor’s (1968) question negotiation approach, and Kuhlthau’s (1993) constructive process approach. Morris’s (1994) study noted that “Dervin does not consider information an objective and external entity, but something that involves an internal cognitive process” (Morris 1994: 21). Elyakov (2010: 64) perceives that “humanity has always dealt, not only with material and energy problems, but also has been engaged in the process of obtaining information from the external world”. Nevertheless, it is necessary to take into consideration the above definition of ‘sense-making’ provided by Dervin (1983: 3) which clearly explains that both internal behaviour such as cognitive, and external behaviour such as procedural are included within the sense-making approach. Kraaijenbrink (2007: 3) indicated that sense-making gaps can be cognitive, affective or situational. Cognitive gaps refer to the situation in which people fail to make sense of the world around them (Wai-yi 1998: 377), while affective gaps involve the satisfaction of emotional needs and are generally associated with uncertainty (Kuhlthau 2004: 6). Hence, Zimmer, Henry and Butler (2008: 300) perceived that “uncertainty affects what information is sought”. This uncertainty is further discussed as the second conception of information needs (section 3.2.2).

Ingwersen and Järvelin (2005: 60) argued that sense-making behaviour is chiefly understood as communicating behaviour. Weick (2001: 5) notes that during the sense-making process, people are actually making an effort to get to know about the reality of things around them. Dervin (1992: 67) highlighted that this kind of communicating behaviour is based on the link between people and structures, institutions and cultures. Morris (1994: 21) further appreciated the fact that Dervin's sense-making approach is a rejection of the traditional information paradigm which primarily looked at information as "it exists in an ordered world that is discoverable, definable and measurable". However, Case (2012: 85) noted that "one need for information may easily lead to another".

Savolainen (2010a: 1783) pointed out with reference to the sense-making approach that "information seeking is a constructive process based on the utilisation of categories of situation, gaps, and uses". Morris (1994: 21) expressed that she has preferred to use Dervin's sense-making approach or paradigm as the information seeking model and the term 'constructivist' for describing the new information model. Holloway (1997: 146) argues that the constructivist approach is an ever changing process. Gredler (2005: 81) noted that at some point the constructivism approach represents a metatheory from both LIS and education. In other words, Wilson (1999: 257) perceives of Dervin's sense-making approach as "a model of a methodology, rather than a model of a set of activities or a situation". Dervin (1992: 61) considered the sense-making approach to be seen as "a set of meta-theoretic assumptions and propositions about the nature of information, the nature of human use of information, and the nature of human communication". Moreover, Liu (2013: 1) further identified two important opinions revealed by the Morris (1994: 28) study in terms of the sense-making approach which was considered to be more relevant for better understanding information needs in the context of the present research: users' information needs are often ambiguous, and, in a literature search users typically change direction based on what they find.

Case (2012: 135) considered Wilson's (1999) model to be one of the most general models of information seeking behaviour that are empirically used in LIS field. Other models include those of Krikelas (1983), Leckie, Pettigrew, Sylvain (1996), and Johnson (1997). Weiler (2004: 46) underlines that Krikelas's (1983) model suggests four steps of information seeking such as

perceiving a need, the search itself, finding the information, and using the information. Case (2002: 122) criticised Krikelas' (1983) model of information seeking for its simplicity and for its inherent character as a library search model. Indeed, McKenzie (2003: 19) valued Krikelas's (1983) model as it distinguished the less-directed 'information gathering' from the more-directed 'information seeking'. Thus, Krikelas (1983: 66) noted that needs are implied by both demands and information seeking conditions. Krikelas' (1983) model of information seeking behaviour is provided below (Figure 2.2).

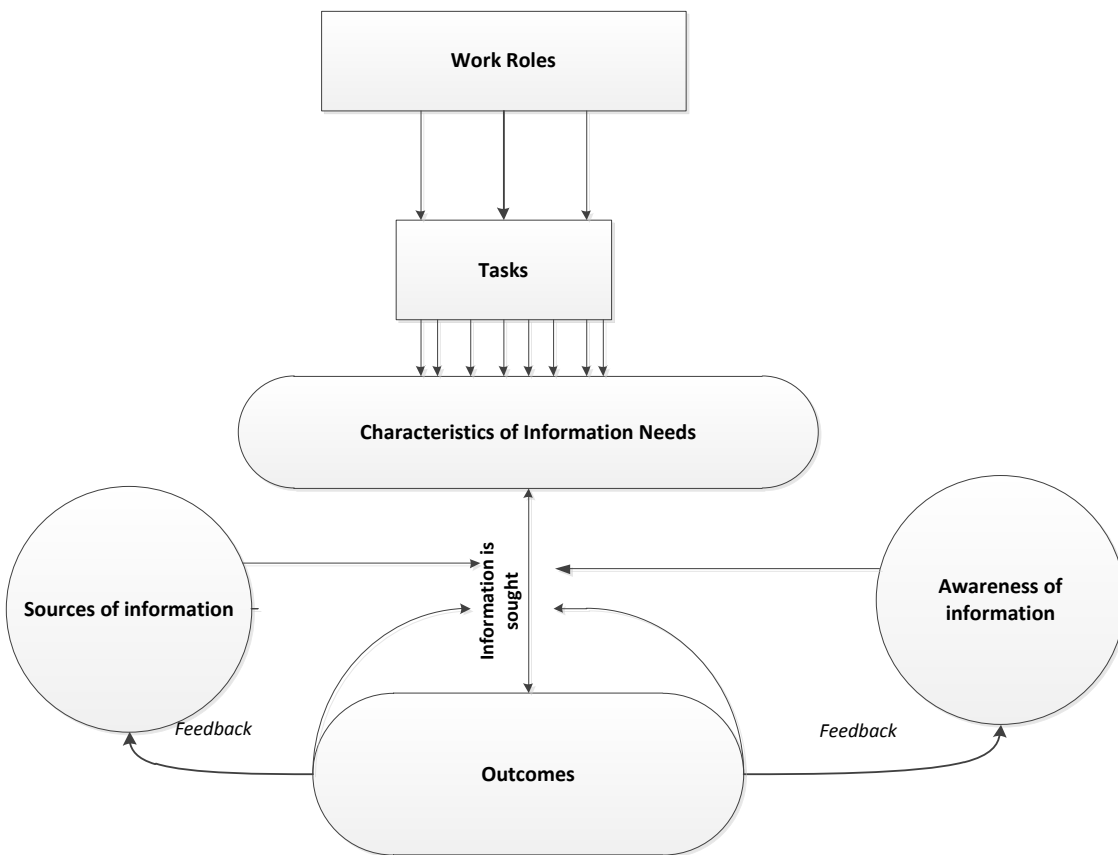


**Figure 2.2:** Krikelas's (1983) model of information seeking

**Source:** Krikelas (1983: 17)

On the other hand, Case (2012: 146) noted that within the Leckie, Pettigrew, and Sylvain's (1996) model "the causal process begins on the top with work roles, which in turn influence tasks". This general model is further criticised to be limited to professionals. Leckie (2005: 161) then acknowledged that "to keep the model general enough to cover a variety of different

professionals and different types of work, the components of the model also were kept slightly vague”.



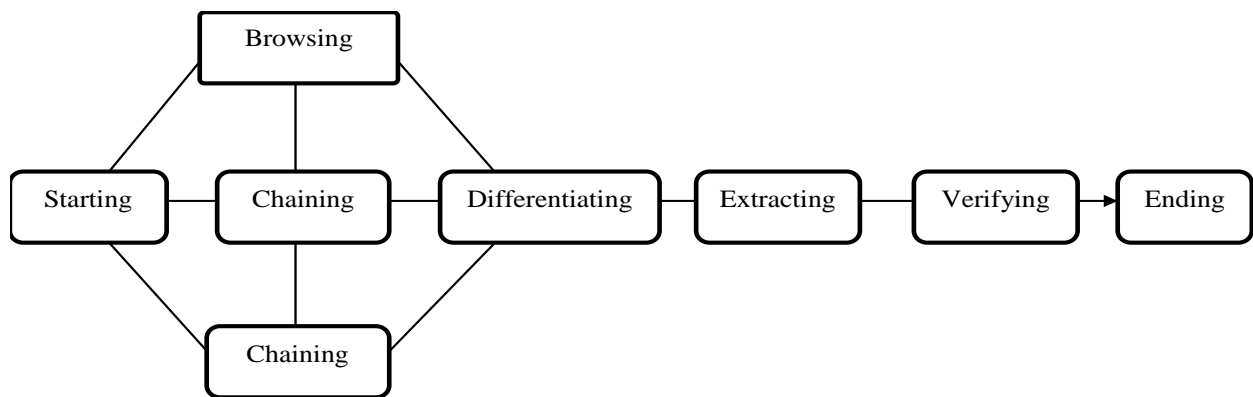
**Figure 2.3:** Information seeking of professionals’ model

**Source:** Leckie et al. (1996: 180)

Ellis’s (1989) behavioural model involves information seeking which consists of eight features and this model prefers to use the term ‘features’ rather than ‘stages’. Järvelin and Wilson (2003: 6-8) considered the strengths of Ellis model in the sense that it is based on empirical research and they further delineated the eight key features of Ellis’s (1989) behavioural model and these include:

- **Starting:** this involves the initial search for information. Ellis and Haugan (1997: 395) state that starting entails activities to locate key people operating in the field.

- Chaining: it consists of following footnotes and citations in well-known material. Ellis (1989: 179) specifies that chaining comprises “following chains of citations or other forms of referential connections of material”.
- Browsing: it consists of “semi-structured searching in an area of potential interest” (Ellis 1989: 179).
- Differentiating: it includes using known differences between information sources used as a way of filtering the nature and the amount of information examined (Ellis, Cox and Hall 1993: 179).
- Monitoring: it encompasses “maintaining awareness of development and technologies in a field through regularly following a particular source” (Ellis and Haugan 1997: 369).
- Extracting: systematically identifying relevant material in an information source.
- Verifying: checking accuracy of information obtained. However, Sayed (1998: 13) states that evaluating and using information are higher order cognitive skills. Macpherson (2003: 333) then indicates that students frequently use these skills for academic work.
- Ending: it consists of “the drawing together of material for publication” (Ellis and Haugan 1997: 365).



**Figure 2.4:** Ellis’ (1989) behavioural model

**Source:** Case (2012: 144)

Makri, Blandford, and Cox (2008: 4) also argued that Ellis’s (1989) model has been tested in subsequent empirical studies related to information seeking behaviour of the social sciences such as Meho and Tibbo (2003); engineers and scientists including Ellis and Haugan (1997);

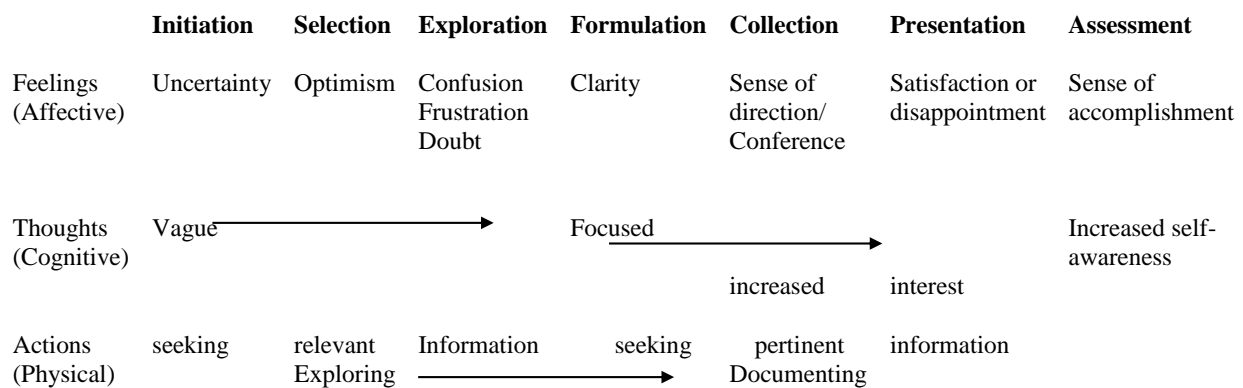


and studies related to physical sciences including Ellis, Cox and Hall (1993). In terms of the electronic environment, Choo et al. (1998: 7) notes that differentiating; monitoring and extracting are considered as information seeking activities in the information search mode. Ellis, Cox, and Hall (1993: 364-365) indicate that verifying reflects checking the information and sources found for accuracy and errors, whereas the ending feature involves searching for pieces of information to bridge knowledge-gaps. Other important studies which have positively reviewed Ellis's behaviour model were related to successive searching (Spink et al. 2002); uncertainty and its correlates (Wilson et al. 2002); and cognitive styles in information seeking (Ford et al. 2002) among many others.

Meho and Tibbo (2003: 570-571) revisited Ellis's study and considered only six generic features such as starting, chaining, browsing, differentiating, monitoring, and extracting. In other words, two other features including verifying and ending are seen as extra features. Meho and Tibbo (2003: 583) concluded that their study not only confirmed Ellis model but they also included four new additional features to the existing Ellis model which are accessing, networking, verifying, and information managing. It is evident that the verifying feature also appears within these new additional proposed features. Ingwersen and Järvelin's (2005) study further identified Ellis's behavioural model within three fundamental interrelated characteristics such as a process model, a summary model and at the same time a general model. Turnbull (2005: 397) also applauded the fact that Ellis (1989) behavioural model has shaped a strong foundation for the development of Choo's (1998) behavioural model of information-seeking on the web which is a consistently useful model especially within the current technological age.

Kuhlthau's (1991) study shows that for complex information seeking tasks, users tend to follow different stages, not only in terms of their knowledge of the task but also their attitudes towards the specific task assigned to them. In this regard, the academic work is critically considered to be understood as a core task assigned to both host and international students enrolled at the South African universities. Kim and Sin (2007: 662) suggest that information literacy instructors may introduce Kuhlthau's information search process model with the aim of assisting students feel welcome with the information system/source. Kuhlthau (1993: 9) initially noted that "an information search is a learning process in which choices along the way are

dependent on personal constructs rather than on one universal predictable search for everyone”. On the other hand, Mackey and Jacobson (2011: xii) mentioned that information literacy primarily sustains the main role of an academic librarian to continuously assist students to locate and interpret information. Kuhlthau’s (1991) study describes common patterns of tasks, feelings, thoughts, and action in distinct stages of initiation, selection, exploration, formulation, collection, and presentation. To corroborate this view, Thani and Hashim (2011: 142) and Kraaijenbrink (2007: 4) indicate that most models in information seeking behaviour tend to describe the relationships among stages in information-seeking behaviour. Kuhlthau’s (1991) model of information search process is provided below (Figure 2.5).



**Figure 2.5:** Kuhlthau’s (1991) model of information search process

**Source:** Case (2012: 145)

Kuhlthau (1991) provided six stages which students systematically follow during the research process and these include:

- **Initiation:** The first stage refers to identifying a need for information and it involves the activity of becoming aware of the need for information when facing a problem.
- **Topic selection:** The second stage is based on choosing the general topic or deciding on the approach to follow. Feelings of uncertainty often give way to optimism after the selection is made.
- **Pre-focus exploration:** The task is to investigate information on the general topic in order to extend understanding. This phase is branded by feelings of confusion and

dominated by uncertainty. Information seekers may feel frustrated with the information access system itself.

- Focus formulation: This phase marks the turning point in the process and at this stage a change in feelings is experienced, with uncertainty decreasing and confidence increasing. It involves fixing and structuring the problem to be solved.
- Information collection: At this stage the main task is to gather information related to a selected or focused approach or topic. In other words, the researcher's feelings of confidence tend to keep growing. Therefore, it is appropriate to make detailed notes.
- Search closure/presentation: At this stage the final results are accurately presented. The presentation stage consists of completing information seeking, reporting and using the results of the task. On the other hand, if the searching process went well, information seekers may be satisfied with results or otherwise they may experience non-satisfaction if the searching process did not go well.

Although Wilson's (1999) general model considers the important contribution of Ellis (1989) and Kuhlthau (1991) models within the LIS sub-fields, Wilson's model does not acknowledge the fixed hierarchy of the steps or the stages during the information seeking process while these other models recommend such a flow. According to Foster (2006), researchers do not naturally follow a fixed sequence of steps while they are seeking information rather, they tend to be flexible. For example, Wai-yi's (1998: 388) study revealed that auditors did not linearly seek information, they were rather flexible. In addition, Wilson's (1999) model does not include the common emotional patterns (more psychological perspectives) while Kuhlthau's (1991) model does and this also justifies the use of Wilson's model for the purpose of the present study. Case (2012: 157-158) argues that Kuhlthau's model gained popularity in studies related to education matters, whilst Ellis model is dominantly applied to studies of professional workers. Wilson (1999: 252) as well as Kuhlthau (1993: 342) determines the three basic human needs such as, physiological, affective, and cognitive needs which are present during an information seeking activity. Wilson (2006: 663) further provided examples for each of the above three basic human needs, these include need for food, domination, and to learn a skill.

Wilson's (1999) model describes the 'user' as the first core variable of his model, rather than a 'task' as it is considered to be the first core variable from models developed by some other scholars in LIS field such as Broder (2002) and Leckie, Pettigrew, and Sylvain (1996). Wilson's (1999) model differs from the model developed by Sutcliffe and Ennis (1998) which is considered to be a cycle with four key activities such as problem identification, articulation of information needs, query formulation, and results evaluation. The main idea supported by Wilson's model refers to the fact that the user may repeat the seeking activity at any phase during the seeking process, not necessarily at any conventional stage or step that would be stipulated in advance. As a result international postgraduate students may effectively benefit from information seeking flexibility, a concept advanced throughout by Wilson's (1999) model.

Wilson (2005: 31) noted that the development of Wilson's (1999) general model of information behaviour, (1981 and 1999) and Wilson and Walsh (1996) has taken a noteworthy period of time. Wilson's (1999) model of information behaviour has been applied for the purpose of this study which has its origin in his model which was first published in 1981 and considerably developed by 1996 (as noted above). Weiler (2004: 46) and Borgman et al. (2005: 640) described research on information needs and the information-seeking behaviour of academics as far back as the late 1950s. Their study started with a simple descriptive study and progressed into a discipline-specific investigation. However, Wilson's (1981) model originated on the basis of a PhD seminar presentation held at the University of Maryland in 1971. In Wilson's (1981) model there are three key elements of information seeking such as the context of information user, information system used, and information resources. All these key elements fall under the same umbrella phrase known as 'universal knowledge' and these can be drawn upon either directly by the user him/herself or through intermediaries. Ocholla (1996: 347) also noted that "knowledge of the existence of information resources depends on several variables: the users' knowledge, skills, experience and exposure".

Wilson's (1981) model was frequently cited but it was not elaborated upon by other scholars. It is in this regard, Wilson obtained financial support to further develop the general model of information behaviour that would accommodate the user's behaviour in a range of multiple disciplines such as "information systems development, health information systems, consumer

behaviour, and other fields". Erdelez (1999: 28) recommended other studies to take place regarding "holistic and detailed tools for modelling information user's behaviour". Wilson kept updating his model of information behaviour and in 1999 he presented this 'final' general model of information behaviour. Case (2012: 157) notes the fact that Wilson's (1999) model primarily refers to 'systems, sources, and people' as sources, it becomes then a more general model than that of Krikelas, which merely refers to documents as key sources. Johnson (1997: 112-113) noted that models generally have strengths and weaknesses, and Case (2002: 115) argued that the strengths of a model should be considered when applying a model for a particular study and it depends on the nature of research problem.

Wilson (2005: 35) notes that his 1999 model of information behaviour has been frequently reviewed and recommended by key scholars in LIS field as well as the current study based on international students' seeking behaviour which also falls in this particular sub-field of LIS studies. Case (2002: 115-116) mentioned that Ellis's (1989) model of information seeking behaviour and Kuhthau's (1991) model of searching processes are universally applicable to any domain and interestingly Ellis model has been closely aligned to Wilson's (1999) model. Likewise, Erdelez, and McKechnie (2005: 34-35) noted that Wilson's model incorporated Ellis's (1989) model in terms of the behaviour characteristics of an information user/seeker in relation to information seeking behaviour and information searching processes, especially within the 'active search' mode. Makri, Blandford and Cox (2008: 3) reviewed the information seeking models throughout different studies such as Wilson's (1999) model of information behaviour in terms of problem-solving activity, Kuhlthau's (1993) Information Search Process 'ISP' model as a series of stages, and Sutcliffe and Ennis's (1998) model as a cognitive process. Lowe and Eisenberg (2005: 63) mentioned the Big6 skills model for information problem solving.

Other scholars' works are closely associated with Wilson's model and well-known in the LIS field. A few will be mentioned here. First, is Dervin's (1983, 1996) sense-making theory which deals with the perception of a need for information, it considers possible information gaps and it involves the steps in the course of action to bridge the observed gap in one's knowledge as Wilson's model does. Dervin's sense-making theory represents two main features that explain its relatedness with Wilson's (1999) general model and these include a general model feature

(Ingwersen and Järvelin 2005: 62) and a feature of being considered as an information-seeking model (Wai-yi and Dervin 1999: 4). Interestingly, Ingwersen (2005: 218) noted that sense-making theory has a close connection with an information retrieval framework. Wai-yi and Dervin (1999: 4) described Dervin's sense-making theory in brief as it covers four components such as a situation in time and space, a gap that involves the difference between the contextual and desired situation, an outcome, and finally a bridge that contributes to close the existing gap between the situation and outcome. McCreadie and Rice (1999: 58) further consider a context as "the larger picture in which the potential user operates; the larger picture in which the information system is developed and operates, and potential information exists", while a situation reflects "the particular set of circumstances from which a need for information arises."

Secondly, Ross (1999: 783) notes that information encountering often contributes to the passive search mode, and Wilson's (1999) model considers both 'active and passive search' modes. In other words, information seeking may be actively or passively undertaken when taking steps to satisfy a perceived goal (Bates 2002: 4). Erdelez (2005: 180) further defines information encountering as "an instance of accidental discovery of information during an active search for some other information". Third, Kuhlthau's (2004) work is also linked with Wilson's model and it values the stages in an active search for information. However, Wilson's model has some limitations and these include the fact that "it provides no suggestion of causative factors in information behaviour and, consequently, it does not directly suggest hypotheses to be tested" (Case 2012: 140). However, none of these limitations can affect the outputs of the current study since the study does not primarily focus on either causes or hypotheses viewpoints.

According to Wilson (1999: 251), it has been experienced that "models of information behaviour, however, appear to be fewer than those devoted to information-seeking behaviour or information searching". The most commonly known theoretical models of the search process include: the standard model of information seeking (Broder 2002 and Marchionini 1989), the cognitive model (Norman 1988, Belkin 1990, Ingwersen 1996), and the dynamic or berry-picking model (Bates 1989). The dynamic model is also supported by some scholars from the LIS field such as Ellis (1989, 1993) and O'Day and Jeffries (1993). Allen (2011: 2165) perceives that "an explicit information need activates a conscious analytical process of

information seeking". Furthermore it is evident from this model that cluster activities involved in the information seeking process depend on the kind of information needs that emanate from information users' motivators. In this context, Case (2002: 119) has explained that Wilson's (1996) activating mechanisms are linked with five key intervening variables, but this study relies comprehensively on three of these intervening variables which can affect the motivations of international students enrolled at South African universities and these are: demographic background (age, gender, and education), environmental variables (resources available), and characteristics of the sources.

It is also important to determine the sources of information used by international students which may differ from one university to another even though these international postgraduate students investigated in the current study are all registered at public universities (UKZN, UNIZULU, and DUT), and in similar academic disciplines of Humanities/Arts, and within the same province of South Africa (KwaZulu-Natal). The study intends to identify available sources consulted by international students in order to satisfy their information needs which basically refers either to academic needs (the core task) or to personal needs (social life) as they face a new academic environment at their current universities. Furthermore, two other intervening variables retrieved from the Wilson's point of view are psychological predispositions (aversion to risk) and factors related to one's social role (example: user acts like a manager) as noted by Case (2002: 119). In this regard, Beaulieu (2003: 243) also added a psychological variable in relation to information seeking and retrieval. The current study has considered the last two intervening variables to fall more within the psychological context than the LIS context.

## **2.5 Other studies based on Wilson's (1999) model**

The researcher regards Wilson's (1999) model to be more comprehensive and appropriate to the problem and population under study than other models. Given the nature of the research problem, the reason for choosing Wilson's (1999) model is that it allows for a description and explanation of users' information behaviour. DeCuir-Gunby (2008: 127) notes that some studies are merely guided by a single theory or one model. This study also applied only one model. Wilson's model has been developed and updated (from 1981 to the 1999 model). Moore

(2002: 303) mentioned that “the basic model provides a framework for analysis”. This model has been successfully used more frequently in the LIS field. For instance, Yang (2007) used Wilson’s model in his study of information seeking behaviour of international students for career decision making at the University of Tennessee (USA). This model has been applied within the South African context in other empirical studies related to this study such as that of Mostert and Ocholla (2005) in their investigation of the information needs and information seeking behaviour of parliamentarians in South Africa. Wilson’s (1999) model was also used by Fourie (2002) in her review of web information seeking/searching studies covering a period of three years, from 2000 to 2002 with implications for research in the South African context. Interestingly, some years later, Fourie (2010) has applied Wilson’s model once more for her study of the information behaviour of patients and families in palliative cancer care.

Wilson’s (1999) model of information behaviour was particularly fruitfully used within the University of KwaZulu-Natal (UKZN) context by Seyama (2009) in her study of information seeking behaviour of students with visual impairments at the University. The model was also applied within the public university context (UKZN) by Majyambere (2012), in his investigation of the information needs and information seeking behaviour of international students at UKZN-Pietermaritzburg Campus. This enabled the researcher to be aware of the model’s strengths, limitations and criticism by other researchers. The use of Wilson’s (1999) model provided a rationale for this investigation and explained the findings by providing the coherent picture of the international postgraduate students’ information seeking patterns and information needs.

## **2.6 Applicability of Wilson’s (1999) model to present study**

The discussion of the theoretical framework contributed to a better understanding of the applicability of Wilson’s (1999) model for the purpose of this study. Kumar (2011: 40) noted that core variables gained from a theoretical framework form the solid basis for research inquiry. The model was also successfully applied for the purpose of previous related studies and this then empowers the positive expectation of relevant findings of this study (section 2.5). The table below helps the study to present the general picture that reflects the research correlation or



relationship between the theoretical framework of the study, three major objectives and five research questions underpinning the study.

**Table 2.1: Mapping of theoretical framework construct to objectives, questions and tools**

Attributes of Wilson's (1999) model	Objectives	Questions	Instruments
Information needs	To determine the information needs of international students at the three South African universities.	Q1. What are the information needs of international postgraduate students?	-University records/data; - Literature; -questionnaire; -Focus group.
Information seeking behaviour	To identify major problems experiencing when seeking information.	Q2. What information resources are used by international postgraduate students?  Q3. How do international postgraduate students obtain the information they need?  Q4. What problems do international postgraduate students experience in terms of acquiring information?	-Literature -questionnaire; -Interview; -Focus group.
Information sources, systems and use	To identify how the information services offered to international students can be improved.	Q5. How can information services that are offered to international postgraduate students be improved?	-questionnaire; -Interview; -Focus group.

**Source:** Field data (2014)

Table 2.1 above shows the data collection tools used to collect relevant research data. It was necessary to systematically review the literature related to the five research questions underpinning this study (Birmingham 2000: 26) together with attributes of the theoretical framework, as they were outlined in Chapter One (section 1.5). Table 2.1 presents a mapping of the theoretical framework construct to the research objectives, sub-questions and instruments.

The study refines the principal research question into five sub-questions. The first research question refers to the information needs of international postgraduate students, one of the core variables of Wilson's (1999) model consisting of 'need'. The study focuses on investigating the information seeking behaviour of a particular group of people, namely international postgraduate students. This core variable of Wilson's (1999) model reflected components related to information seeking behaviour, and was presented in diagram (Figure 2.1). It was then linked with three sub-questions (questions 2, 3, 4) as indicated in Table 2.1 above. It was important to deal with the second objective of the study, which was a building block of the study in order to obtain meaningful findings of the study. The third objective was based on the improvement of information services and it was researched in terms of the 5<sup>th</sup> question.

## **2.7 Summary of the chapter**

This chapter covers the theoretical framework of the study. It provides the relevant information seeking models considered to contribute to the better understanding of the theoretical framework of the study. Wilson's (1999) general model of information behaviour was specifically used as the theoretical framework for the current study. This model was introduced at an early stage in Chapter One (section 1.6). Wilson's (1999) model has been presented in diagrammatic format with the twelve attributes regarded as more appropriate for the purpose of this research (section 2.3). The framework was academically reviewed within the context of the present study. It was further explained that Wilson's (1999) model has been applied in previous studies carried out in the South African context (section 2.5). It was necessary to relate the theoretical framework of the study with research objectives and research questions underpinning the study. It was also important to clearly associate data collection tools with research questions and core variables of the framework (Table 2.1). This was done with the aim of ensuring the usability of the main attributes which formed the framework and provided the primary guidance for the development of the literature review which is systematically discussed in the next chapter (Chapter Three).

## CHAPTER THREE: LITERATURE REVIEW

### 3.1 Introduction

This chapter develops the literature review for the study. The review of related literature intends to situate the study within existing research (Boote and Beile 2005: 3). It indicates where the present study fits into the broader debates, thereby justifying the significance of the study (Pather 2004: 72), and identifies and fills gaps in the researcher's knowledge (Kumar 2011: 31-32; Vithal and Jansen 2004: 14; and Punch 2000: 44-45). Similarly, Somekh and Lewin (2011: 17) argued that the purpose of a literature review is "to put your research project into the context by showing how it fits into a particular field". Therefore, a literature review needs to be more than a listing of previous work (Paltridge and Starfield 2007). For the purpose of writing a thesis or dissertation, the literature review often occurs as a chapter itself (Blaikie 2010: 17-18) as was the case with this study. In the context of information seeking behaviour, Taylor and Procter (2005: 1) argued that a researcher needs to have the ability to scan literature efficiently using manual or computerised methods in order to identify a set of useful books and journals.

Stilwell (2000: 173) pointed out that "literature review needs to indicate the different views, agreements, disagreements and trends of thought on the topic of research and be accurately portrayed and acknowledged in the text". Babbie and Mouton (2009: 566) have also argued that a literature review must highlight the foremost trends, arguments and disagreements. Similar advice comes from Punch (2000: 45) as well as other authors who suggest that "if you find a good literature review, it is sensible to use it" but with clear acknowledgement. Bowers and Stevens (2010: 94) noted that the literature review creates a strong foundation to rely on when building the entire research project. Therefore, Blaikie (2010: 18) argued that the researcher should focus only on relevant literature in order to satisfactorily answer the research questions. Kumar (2011: 31) further explained that the literature review primarily plays a vital role in establishing theoretical roots of the research, systematically identifying and explaining crucial ideas, and to empirically develop the research methodology.

Some scholars have provided a general overview of the body of literature undertaken at a national level in terms of information needs and seeking behaviour of both individuals and groups of individuals for a variety of contexts. These include reviews by Pakistan, Anwar (2007) who reviewed studies on information needs and information seeking behaviour of different groups of individuals in Pakistan. In South Africa, Stilwell (2010) reviewed literature on information behaviour in the South African context in a preliminary exploration and bibliography from 1980 to 2010. Kumar (2011: 34) noted that searching for the existing academic literature in almost all academic disciplines commonly involves three major sources such as, books, journals and the Internet. Punch (2000: 42) underlined that “all social research has relevant literature” and this study falls under the social science as well.

A comprehensive body of literature on theories developed in the context of information needs and information seeking behaviour had been produced and key promoters are often cited in South African literature such as Fisher, Erdelez and McKechnie (2005), Ingwersen and Järvelin (2005) and Case (2002, 2007, 2012). Interestingly, Ingwersen and Järvelin (2005) and Beaulieu (2003) proposed a cognitive framework which considered the combination of information seeking and retrieval research within the LIS field. The way information is found and used has for long been a main focus in the discipline of LIS (Leckie, Pettigrew and Sylvain 1996). Ikoja-Odongo and Mostert (2006) reviewed major studies that focused on the concepts of information behaviour, needs, seeking and use. They then looked at the context of information behaviour to be considered as the foundation for any research in this field. Therefore, the review for this study should contribute to a better understanding of the key research components for the present study and create in-depth insights in relation to the information seeking behaviour of international postgraduate students.

### **3.2 Information needs of international students: introduction**

Since the concept of information needs ultimately varies from one group to another, this section primarily contextualises the information needs in relation to the present study. It then focuses on the literature concerning the information needs of international students at host universities. It was vital to first understand the concept of ‘information’ and then move on to the discussion

of information needs. The term ‘information’ is explained along with brief comments on two other related concepts, data and knowledge. Furthermore, the word ‘information’ was clarified earlier in order to contextualise the implication for the information needs of international students in terms of their academic activities.

### **3.2.1 Data, information and knowledge**

Information is an old English term, making an early appearance between 1372 and 1386 (Schement 1993: 177). Wilson (2006: 659) states that the term ‘information’ does not have a single definition applicable for all studies at all times. Zawawi and Majid (2001: 25) highlight that “information is inevitable to almost all jobs and professions”. Zhang and Benjamin (2007: 1935) explain that depending on the field in which information is being studied and the context in which it is being used, the word ‘information’ has multiple underpinning significances and perceptions. In the case of information, there are two other closely related concepts being data and knowledge (Case 2012: 47). Frické (2009) and Rowley (2007: 164) believe there is another related concept ‘wisdom’. Brown and Duguid (2000: 2) argue that there is always confusion whenever the three common concepts of data, information and knowledge are generally used interchangeably. Hill (1999: 23) and Doring (2002: 144) highlighted that generally there is confusion of meaning between the terms ‘information and knowledge’. Frické (2009: 140) claimed that “knowledge and information collapse each other” when people try to describe these terms. Olsen (2012: 8) argued that “data are disembodied information. Data are not the same as knowledge”. O’Riordan (2005: 6) recommended that information should be distinguished from data and knowledge.

Cong and Pandya (2003: 26) defined data as ‘raw facts’. Ikoja-Odongo and Mostert (2006: 146) refer to data as “measurements and representations of the world around us”. Through a process of change, data becomes systematically arranged and processed data represents information (Giannetto and Wheeler 2000: 3). Gamble and Blackwell (2001: 143) considered information as a result of processed data but within a meaningful form. Case (2002: 62) defines information as “data that has been gathered, processed and analysed to provide a useful result called information”. Feather and Sturges (2003: 244) shared the same view with other scholars and

opined that data becomes information by the time it has been organised, analysed and given value in a meaningful and relevance manner for present or future use.

In terms of the relationship between data, information and knowledge, Choo, Detlor, and Turnbull (2000: 29) indicated that “information depends on a collection of data and knowledge is based on accumulation of experience”. Styhre (2003: 49) underlines that knowledge encompasses a variety of features. Information becomes knowledge once a human being forms justified and true beliefs about the world (Case 2012: 73). Sallis and Jones (2002: 6) highlighted that formal knowledge basically appears in a broader range of formats, for example, official policy documents and correspondence files; whereas informal knowledge is highly intangible.

Ackerman, Piper, and Wulf (2003: 33) discuss three basic categories of knowledge as being tacit, explicit and cultural knowledge. According to authors tacit knowledge is expressed through action-based skills and cannot be reduced to rules and recipes. Grix and Watkins (2010: 9) then pointed out that “knowledge is power”. In this context, explicit knowledge may be object-based or rule-based, while explicit knowledge can easily be expressed and communicated (Henczel 2000: 4). Ackeman, Piper, and Wulf (2003: 33) indicated that cultural knowledge is based on the implementation and adoption of the values and norms of the organisation. Holmes (2004: 295) argued that knowledge is often generated through a process of questioning and evaluation of beliefs.

Morris (1994: 21) viewed the traditional information patterns based on Shannon and Weaver (1949), in the sense that information tends to be considered “as external, object, as something that exists outside the individual”. Floridi (2002: 138) noticed that “information may start without one necessarily having a grasp of the proposition which embodies it”. Elyakov (2010: 63) notes that “as compared to material objects, information is inexhaustible: its use does not lead to its disappearance”. Case (2012: 50) further notes that information reflects three main senses and these include information-as-process, information-as-knowledge and the final sense of the information concept is information-as-thing. Ruben (1992: 22-24) traditionally reduced information conceptualisations into three ‘orders’ and these include the environmental sense of information, internal representation of information and the third order of information consists of

the social context of information. Frické (2009: 139) notes that there are so many characterisations of the concept of information. Mark and Pierce (2001: 476) and Bouazza (1989: 145) argued that the most useful explanation of the concept of information refers to 'reduce uncertainty'. Elyakov (2010: 64) then concluded that "without information no adjustment to nature is possible for either mankind as a whole or an individual".

Case (2012: 8-9) commented on ten common expectations related to the term 'information' (since the late 1970s ) in the context of communication and information seeking studies and these include:

- Only 'objective' information is valuable. It is assumed that people have the ability to make rational decisions based on the right information received from the environment. However, the reality is that people frequently rely on the first optional solution, instead of digging up the best possible solution.
- More information is always better. It is practically important to consider that having a large quantity of information does not necessarily guarantee the holder of information becoming a well-informed person. Although having enough information empowers decision makers as they have various alternatives, too much information often leads to overload issues which create confusion.
- Objective information can be transmitted out of context. People may sometimes experience unexpected complex situations when they are trying to adopt and adjust to the surrounding environment or the world around them as the environment is always dynamic and changeable.
- Information can only be acquired through formal sources. It is commonly accepted that people are not merely limited to formal sources and the truth is that even in an academic environment, people (academicians) tend to use both formal sources, for example librarians, and informal sources, for example, colleagues and relatives.
- There is relevant information for every need. This assumption may not apply to everybody or each situation because needs vary from one individual to another and need

is situational and not static. In other words, information does not facilitate all human needs as the demand for information is usually elastic.

- Every need situation has a solution. Information professionals are responsible for the customer or user satisfaction but it requires a high level of skill to understand the user's needs and expectations. Yet the information users may fail to express their needs which lead to a misunderstanding between the information providers and users.
- It is always possible to make information available or accessible. Formal information systems are designed in a way that they can only meet specific information requests or limited needs. Unfortunately, information needs change from time to time and are different from place to place.
- Functional units of information, such as books or television programmes, always fit the needs of individuals. Information service providers tend to judge what type of information people should need without first consulting the clients or at least doing a pilot survey in terms of the user's needs. Thus, the consequence is a poor information service and this frequently leads to non-satisfaction from the user viewpoint or particular desire.
- Time and space concerning individual situations can be ignored in addressing information seeking and use. This can create a challenge in terms of communication and information seeking perspectives, as it is commonly accepted that needs differ from one individual to another and from one case to another.
- People make easy, conflict-free connections. This assumption has the effect of focusing only on understanding things that are happening around us, rather than distinguishing the reasons for which people do things differently or act in different ways.

It is important to note that the above ten assumptions were made about everyday information needs and not in the context of specific needs. Budd (2005a: 7) noted that higher learning institutions "are deeply concerned about the state of information today and in the future". Wilson (2006: 659) observes that the fact that information does not have one specific definition



has unfortunately led to researchers often failing to use a definition appropriate for the purpose of their investigation. Webb, Gannon-Leary, and Bent (2007: 123) argued that information is a valued input for any research project within all disciplines. Case (2012: 51) indicates that the distinction and criticism about the types, expectations, sense and definitions of the term 'information' made by different scholars do not necessarily create confusion but rather complement and bridge the gap in understanding the meaning of the information concept.

This study considered all opinions and explanations developed from previous studies concerning the meaning of the concept of information and the study has applied Kaniki's (2001) definition of 'information' as indicated in Chapter One (section 1.10.1). This definition was found to be appropriate for this study because it broadly clarifies the meaning of the term 'information' in the LIS context; it highlights the main purpose of information including the decision making process and problem solving.

### **3.2.2 Information needs in general context**

Information needs have frequently been defined according to the particular expertise of various scholars (Ikoja-Odongo and Mostert 2006: 146). Information needs occurs in a situation where a person notices an information gap in his/her state of mind and cannot meet the satisfaction of desired goal (Case 2007: 333). Furthermore, Ikoja-Odongo and Mostert (2006: 147) mentioned that "an information need is a requirement that drives people into information seeking". Therefore, an information need is typically considered as a cause of information seeking (Kadli and Kumbar 2011: 1). Kuhlthau (2004: 26) states that "information need may start as a vague sort of dissatisfaction which is characterised by confusion and perplexing reaction to a vague new idea". Zawawi and Majid (2001: 25) argued that "the need to become informed and knowledgeable individuals leads to the process of identifying information needs".

Fourie (2010: 38) notes that people may not ask for information, just because they do not realise that there is a need. Cole et al. (2005: 1544) pointed out two possible situations where the information need is known by a user and the consequent information found can effectively assist in satisfying a perceived goal or an unknown need which is difficult to determine. The

second situation is relatively close to what Fourie (2010: 38) considers a 'dormant information need' which is that identified by information professionals on behalf of the user. Budd (2005b: 44) mentioned that information professionals need to interact in a friendly manner with information seekers. Belkin, Oddy and Brooks (1982: 64) indicate that an information need to some extent represents "a statement of what the user does not know". However, Chen and Hernon (1982: 9) expressed that an information need has to be placed in its context. According to Williamson (2005), the content of the need then becomes more informative than it was.

Chatman (2000: 10) believed that "people will not search for information if there is no need to do so". Elyakov (2010: 65) noted that "information reaches more deeply and extensively in the social structure". Chatman (2000: 10) further underlined that "if members of a social world choose to ignore information, it is because their world is working without it". Maslow (1963: 122) traditionally observed that people can either seek knowledge or avoid knowing with the aim of decreasing anxiety. Johnson (1997: 56) hence argues that ignorance is different from "ignoring, which often happens when an individual consciously knows that a problem exists, but chooses not to confront it".

Case (2012: 85) asserts that the core goal of a user's information seeking activities generally consists of information that successfully satisfies information needs. Wilson (1997: 553) traditionally reported three categories of information needs and these include: the need for new information, the need to elucidate the information held, and the need to conform the information held. Case (2012: 81-86) discussed information needs based on Taylor's four typology such as seeking answers, reducing uncertainty, making sense, and the spectrum of motivations.

The first typology of information need relates to seeking answers as it brings attention to the origins of information needs (Taylor 1968: 182). It is initially inadequate to seek an answer or a problem solution without considering the ways and the reasons people look for information (Thani and Hashim 2011: 137). In this regard, Case (2012: 82) used Taylor's typology of information needs in order to explain why people seeking help from information professionals, mainly from librarians, tend to be more general in expressing their information needs rather

than in a specific way. Case (2012: 82) notes that Taylor's typology including visceral need which stands for the unexpressed need for information, conscious need which replicates conscious mental description, formalised need which mirrors rational statement of need, and compromised need which reflects in-depth understanding between the information service provider, dominantly library staff, and a requester for example, from a student. Kuruppu and Gruber (2006: 610) note that the communication between the library and university community assists to understand information needs of students. Case (2012: 81) also suggests further revisiting and reviewing two important articles produced in the context of information seeking literature, articles by Palmquist (2005) and Edwards (2005) based on Taylor's discussion of the origins of information needs.

The second typology of information need consists of reducing uncertainty. Ikoja-Odongo and Mostert (2006: 149) describe information need as the recognition of the existence of uncertainty in the personal or work-related life of the individual. Klir (1996: vii) notes that "information in a given context is obtained by a cognitive agent whenever relevant uncertainty is reduced". Low (2000: 21) describes information as an element that adds new value. Therefore, people may try to address their uncertainty through requesting information (Idiegbeyan-Ose and Akpoghome 2009: 22). Ingwersen (1992: 27) notes that an action required upon gaining knowledge leads to the cognition of a stage of uncertainty in the requester's mind. Unfortunately, Camara (1990: 55) and Neelameghan (1980: 6) argued that it might be difficult to describe the value of information in answering an information need.

Belkin (1980: 137) within his Anomalous States of Knowledge 'ASK' approach, examined Taylor's level one and two typology of information needs namely visceral need or conscious need and began to integrate it into an information need design based on an information retrieval system such as a library or database. Belkin, Oddy, and Brooks (1982: 62) further considered information needs being built upon an 'anomaly' which is based on the existence of a knowledge gap or uncertainty existing within the individual's state of mind and it then often leads to the information seeking process, either immediately or at a later stage. This scholarly thinking is strongly supported by Nicholas (2000: 20) and it was also mentioned in Dervin's (1992) concept of the knowledge gap or situation of uncertainty. Sligo and Jameson (2000)

comprehensively discussed the 'knowledge-behaviour gap' of health care members. Similarly, international students might experience uncertainty resulting from the demands of a new dynamic academic environment at university.

The third typology of information need involves sense making. Spurgin (2006: 102) argues that the sense-making approach was introduced in 1972 and it has its origins primarily in the works of Dervin and colleagues. However, the sense-making was successfully applied for the first time in the early 1980s through Dervin's work-related communication research and it has further played a vital role in the development of studies within different disciplines including information needs, uses and seeking studies (Dervin 1983: 3). Savolainen (2010a: 1783) mentioned that sense-making theory has inspired some empirical studies and these include Julien's (1999) study that discusses barriers to adolescents' information seeking for career decision making, and Pettigrew, Durrance and Unruh's (2002) study that focused on the ways people use public library-community network systems. Spurgin (2006: 103) also indicated that:

“Sense-making conceptualises information as that sense created at a specific moment in time-space by one or more humans. Human perception and understanding of messages are not absolute; each of us must make sense of what we encounter”.

Dervin (1999) further suggests an alternative approach to the issues of context by indicating that reality is discontinuous, filled with gaps and changeable across time and space. Morris (1994: 21) mentioned that time and space are frequently shifting rather than remaining static. Along the same lines, Eaton and Bawden (1991: 161-162) and Meyer (2005: 4) noted that information reflects a dynamic force which causes change within a specific system. Savolainen (1993: 16) further indicates that the fundamental activities involved throughout the sense-making approach include information-seeking, processing, creating and efficient uses of information. Some information behaviour studies such as those of Kuhlthau (2004) and Detlor (2000) have incorporated Taylor's (1991) views of the information use environments.

Dervin (1999: 739) notes that sense-making involves the use of available information for the purpose of bridging the existing knowledge-gap. Similarly, Schamber (2000: 734) argues that

the sense-making approach consists of the ways in which people perceive and bridge cognitive knowledge-gaps with the aim of making personal sense of the world. In this context, Case (2012: 85) mentioned that “the strategies employed are shaped by the searcher’s conceptualisation of both the gap and the bridge, and by the answers, ideas, and resources obtained along the way”. Cogdill et al. (2000: 485) note that students frequently look for information related to their general education activities which also depend on their specific academic disciplines. Thus, for the purpose of this study, it was perceived that the information needs of international students could be affected by the nature of various academic disciplines that are incorporated within the broader fields of the Humanities/Arts.

The fourth typology of information needs relates to the spectrum of motivations. Case (2012: 86) has narrowed this typology into two important perspectives which he refers to as the objective pole and subjective pole. The objective pole tends to consider information needs to be understood as relatively fixed which reflects the traditional information paradigm where information must be objective in order to be considered valuable (Morris 1994: 21). On the other hand, the subjective pole relies on the fact that information needs are more often dynamic and the human needs are influenced by this dynamism (Bates 2006: 1033). It is generally accepted that people live in an environment that is uncertain and ambiguous (Case 2012). Therefore, Tidline (2005: 113) indicates that considering the motivations that lead to information behaviour, academics are expected to identify the information needs of students.

### **3.2.3 International students’ information needs**

There are few empirical studies on the international student community with regard to their information needs (Yi 2007: 667) worldwide and even less at the national level in South Africa. Nonetheless, the International Education Association of South Africa ‘IEASA’ (2012) noted that the number of international students has recently increased in South Africa academic institutions. Thus, it is vital to identify information needs of international students.

It is important to note that the information gap arises between what is known and what needs to be known in order to make successful decisions about a topic or regarding a situation (Ben-

Haim 2006: 16). Although in routine decision-making people frequently tend to take decisions based on their experiences, in non-routine decision-making, people often experience uncertainty about their decisions (O’Leary and Mhaolrúnaigh 2011: 379). This makes sense taking into consideration that in the current dynamic environment, information seeking behaviour of the users can change (Kuruppu and Gruber 2006: 610) and international students also have to adapt to academic environmental changes. Adams (2010: 69) notes that “uncertainty motivates people to seek answers to their information needs”. In addition, Cleaver (1987: 29) expects that accurate information has the potential to decrease the possible uncertainty that may exist in the knowledge of international students who need to make sense of particular situations in which sound decisions have to be timeously and accurately made. To corroborate this view, Brigham and Grant (2000: 2) found that sense-making assumes “humans respond to their surroundings by adaptation and creativity, and that they take external information and incorporate it with their own internally organised collection of information to make sense of their world”. In terms of everyday information needs of international students at their host university, Sin and Kim (2013: 110) found that the five top information needs were “finance, health, and news of ones’ home country, housing, and entertainment”.

In the South Africa context, international postgraduate students have different educational backgrounds due to the fact that some of these students have completed their previous degree at home universities, so there is diversity in their information needs. Hughes (2005: 170) noted that international students have a widely varied educational background and life or professional experience. Blom (1993: 4) agreed that people are influenced by their intellectual experience when searching for information. International graduate students tend to face new environmental factors at their current universities which might raise multiple needs for information (Korolev 2001) which include the new physical or academic environment, work or study environment and socio-cultural environment (Song 2004). International students generally have culture and socio-adaptive challenges in their new environment (Liao, Finn and Lu 2007). Leder and Forgasz (2004: 196) further noted that international students suffer from a lack of an immediate support network without their family members.

Bailey (2005: 265) pointed out that “reference librarians are the library’s eyes and ears. They understand user needs and perceptions”. Hiemstra (2009: 2) and Moore (2002: 299) suggested that information service providers need to deliver information that should satisfy the needs of the users. For instance, information professionals have to provide quick access to the useful academic resources and keep reviewing their information services (Huxley and Jacobs 2004: 224). In this regard, Chowdhury and Chowdhury (2011: 28-29) have provided some of the key elements which need to be considered in terms of understanding the information needs of students whether they are local or international students. These vital elements include:

- Information need is a relative concept. In other words this means that information need depends on different variables and it does not remain constant;
- Information needs change over a period of time (Holliday and Li 2004: 356);
- Information needs vary or differ from one individual to another, work to work, subject to subject;
- Students’ personal information needs are largely dependent on the environment within which they are living;
- Information needs often remain unexpressed or poorly expressed;
- Information needs often change upon receipt of some information.

Butcher and McGrath (2004: 544-546) discussed issues related to academic and social needs of international students at host universities. Butcher and McGrath (2004: 544) particularly revealed that academic needs of international students include issues related to their:

- English language competency;
- Difficulty in responding to the active teaching/learning style;
- Challenges based on the lack of research skills; and
- Lack of culture to participate during class discussions (Butcher and McGrath 2004: 544).

Beard and Dale (2011: 108-109) explained that the needs varied from one student to another. Kuhn (2010: 53) pointed out that students do not all learn in the same way. In other words, students seek, absorb and use information in different ways (DaCosta 2011: 39). For instance, Butcher and McGrath (2004: 545) perceived that social interactions of international students

might impact on their academic performance. This means that international postgraduate students have not only academic related information needs but they also need information to meet their personal needs at their universities in South Africa. It was important to consider that international students then consult different sources of information in order to meet their perceived information needs. Therefore, the next section below discusses the information seeking behaviour of international students.

### **3.3 Studies related to the information seeking behaviour of international students**

Information needs and seeking behaviour of students and academics have been a popular area of research (Majid and Kassim, 2000). Most studies related to information seeking behaviour concentrate on library use, reasons for the information search, and time factors (Stokes and Lewin 2004: 48). University students were empirically investigated by some researchers but without identifying whether the students were local or international students, for instance in Nigeria, Nwagwu (2012) investigated information sources and information needs of postgraduate students in Engineering and Arts in the University of Ibadan, Nigeria.

In the South African context, some of these studies included those by Soyizwapi and Hoskins (2010) who investigated use of electronic databases by postgraduate students in the university based Faculty of Science and Agriculture at the UKZN. In the following year, Hadebe and Hoskins (2010) surveyed the information seeking behaviour of master's students as a sub-group of postgraduate students but within the same university (UKZN). Adams (2010) researched the information behaviour of Generation Y students at the University of Stellenbosch while Davis (2000) investigated information seeking behaviour of undergraduate students at the University of Western Cape (UWC) with the specific objective of finding out whether information retrieval systems do or do not meet their needs. Other studies include Seyama (2009), Nkomo (2009), Ntombela, Stilwell, and Leach (2008), Shongwe (2005), and Davis (2000, 2007). This review then focuses on the studies about international students' information seeking behaviour or patterns, information needs, the barriers and challenges they experience during their academic study at current universities. The review also includes similar studies which examine the same variables included in this study.



Yi's (2007) online survey investigated international student perceptions of information needs and use at the Texas Woman's University (USA). The study did not only examine the information needs of international students but went further to identify the influence of education level, gender and age factors in relation to their information use. The results indicated that the core need referred to was information that supports the academic needs of international students. The study revealed that international students with higher education levels (arguably postgraduate) use databases, remote access to library offerings, and electronic journals more often than international students with a lower education level (undergraduate). The findings revealed that international students had various cultural, language and educational backgrounds which as a result created multiple information needs. Information needs were collated into four categories: information for improving library skills, improving English proficiency, solving academic problems and information concerning software applications.

George et al. (2006) investigated graduate students' information behaviour in relation to their inquiry process and scholarly activities. The semi-structured interview was used as a data collection tool and they interviewed 100 masters and doctoral students registered within different disciplines at the Carnegie Mellon University (USA). The findings of the study indicated that more than three-quarters (77%) of graduate students rely heavily on Internet resources either as their primary method of searching, or the next step after meeting the advisers, lecturers and supervisors. Graduate students were willing to look for personal assistance from librarians with library-related matters. Interestingly graduate students also used print resources from both the university library and other libraries but the study did not clarify whether the graduate students had physically visited other libraries to borrow books and printed journals or had used the interlibrary loan services.

Vezzosi (2008) investigated doctoral students' information behaviour at the University of Parma (Italy) and the findings of the study revealed that doctoral students considered the Internet to be their first and favourite point of access to any type of information, both for their academic needs or research work and for their everyday life or personal needs. The use of the library was chiefly dominated by document delivery and interlibrary loan services. Participants in Vezzosi's study admitted being familiar with electronic resources such as databases,

catalogues and online journals but they much preferred Google as a major search engine for their research projects.

Leder and Forgasz (2004) surveyed mature international students in Australia to determine the daily challenges experienced by international students. The study revealed that participants' information needs were consistently based on the differences in their academic home backgrounds and financial circumstances. The study found that international students consequently are likely to suffer more with the new academic environment in their host countries and lack of immediate support network with their family members. These issues can create challenges for the information needs of international students as they have both academic and personal related information needs. Jeong (2004) surveyed the information-seeking behaviour of Korean graduate students in the USA and interviewed eight international students. Although the sample size of this study was relatively small, the results were informative. The study revealed some of the challenges which hindered information seeking of international students and these mainly included language barriers and geographical isolation.

Mehra and Bishop (2007) surveyed the cross-cultural perspectives of 21 international doctoral students in a premier American LIS institution (USA). The study examined internationalisation in the context of a 'two-way' learning process in which international students gain from the discipline and simultaneously the LIS education system also benefited from the cross-cultural experiences of the students. The study concluded that encouraging knowledge sharing with international doctoral students is relatively low-cost, reliable and efficient, and provides rich, authentic, and trustworthy insights. The study further recommended that the adoption of two-way learning strategies may assist international students to interact easily with the university's community and this friendly interaction then assists learning about diverse experiences, knowledge, information practices and use. According to Shoham and Strauss (2008), effective everyday life information acquisition contributes to a smoother cross-cultural transition.

Barrett's (2005) study investigated the information seeking behaviour of graduate students in the Humanities at the University of Western Ontario (Canada). He interviewed ten masters and doctoral students with the aim of establishing if graduate students' information behaviours

distinguish them from academics and undergraduates. This sample size was relatively small. The results revealed that the use of electronic resources was extensive, although there was a lack of electronic versions of primary resources. Participants pointed out the importance of personal contacts for their research in terms of suggestions about research topics and resources. In this regard, the study involved both formal sources (supervisors) and informal sources (colleagues). The study revealed that certain aspects of Humanities graduate students' information seeking behaviour distinguished them from undergraduates and academics. The two main aspects were that Humanities graduate students rely heavily on research supervisors during the initiation and development of their major research projects.

Majid and Kassim's (2000) study investigated the information seeking behaviour of the International Islamic University Malaysia (IIUM) law academics (Malaysia). The purpose of the study was to identify the information channels used by participants, information sources preferred by them, methods employed for obtaining the needed information and their library use pattern. A questionnaire was used as a data collection tool. The study found that books were ranked as the most important source for teaching and research purposes. Interestingly the OPAC and the CD-ROM were the most frequently used information technology-based sources and facilities. See also Abdoulaye's (2002: 193) survey of information seeking behaviour of African students studying in Malaysia. In their literature review, Majid and Kassim (2000: 3) observed that in addition to formal information sources, academics rely on informal communication channels to meet their information needs. Dee and Blazek's earlier study in 1993 investigated the information needs of rural physicians and highlighted that colleagues (informal source) were preferred over other channels, as they were considered familiar, reliable and immediately accessible for acquiring useful information.

Qureshi, Zafar, and Khan (2008) investigated the information needs and seeking behaviour of students in universities in Pakistan. The study revealed that there were numerous factors that have a positive impact on students' seeking behaviour and these included educational and cultural backgrounds, academic environment, and the ability to use available resources for learning purposes. The study concluded that "if the surrounding environment is helpful and

student participation is active then it will create a culture that enhances the students' information gathering system".

Dilevko and Gottlieb (2002) carried out a web-based survey of undergraduate library users at the University of Toronto (Canada). The study concluded that while undergraduate students normally begin essays and assignments using electronic resources, indeed traditional print resources such as books and printed journals remain important resources for the purpose of students doing academic work because of their reliability and permanent accessibility. In earlier research, Liew, Foo, and Chennupati (2000) conducted a survey of 83 graduate students to identify their use and perceptions of electronic journals (Singapore). The study revealed that a vast majority, 73% of graduate students preferred electronic journals over print journals. The fundamental reasons for the preference have been reported and these include links to additional resources, searching capability, currency, availability, and ease of access.

Fidzani's (1998) study explored information needs and information seeking behaviour of graduate students and their awareness of library resources at the University of Botswana. The study revealed that journals, library books and textbooks were the most popular sources of information for course work and research purposes. It also indicated that students need to be taught how to use the available library resources and services. The researcher observed that many graduate students lack basic skills in effectively using the library and its resources. Soyizwapi (2005: 5) also argued that postgraduate students in South Africa need to improve their usage of library databases. Fidzani's (1998) study then suggested that a further survey should be conducted during the registration period with the completion of a questionnaire for the purpose of understanding information requirements at the early stage and improving the ability of master's students registered at the University of Botswana. Kaniki (2000: 39) noted that the motive behind this suggestion was based on the fact that most researchers are trained at master's degree level.

Baro, Onyenania, and Osaheni's (2010) study investigated the information seeking behaviour of undergraduate students in the Humanities in three universities in Nigeria. The study used questionnaires, interviews, and observation as data collection methods. The sample size was

259 undergraduate students. The current study also covered three universities and targeted students enrolled in the Humanities as well and used an almost equal sample size of 232 students. Both studies adopted the survey method. The only difference was that the current study used questionnaires and interviews with a focus group discussion rather than an observation method (section 1.7.2). In order to ensure the representation of each subgroup of participants, the current study decided to apply the stratified sampling technique instead of using the random sampling technique. The current study targeted a specific group of students (international) instead of including all local and international students and focused on graduate students rather than undergraduate students.

The two other important related studies to information seeking behaviour of students in the South African context were Seyama's (2009) study which investigated the information seeking behaviour of students with visual impairments at UKZN. The study carried out by Nkomo (2009) did a comparative analysis of web information seeking behaviour of students and staff at the University of Zululand and DUT. The two studies employed the same data collection tools which included a survey questionnaire and interview schedule. The current study surveys the three universities which were separately targeted by these two previous studies during 2009. Although Nkomo (2009) surveyed both students and staff members while Seyama's (2009) survey targeted only students with visual impairments, both studies did not limit their research to the level of either undergraduate or postgraduate, in contrast, the present study targets Humanities/Arts international students, particularly those registered at postgraduate level of study.

Majyambere's (2012) study investigated the information needs and information seeking behaviour of international students at the University of KwaZulu-Natal, Pietermaritzburg Campus (UKZNP). The study surveyed a sample size of 150 international students. The outcome of the study revealed that more than half, 62.7%, of academic needs were characterized by two issues, namely, the registration process (32.2%) and issues around lectures (30.5%). Other key matters discussed were based on information literacy skills and English language proficiency problems experienced by international students enrolled at UKZNP. In the same context of international students, Toyokawa and Toyokawa (2002: 364) also reported

issues related to language barriers, as did Hughes (2005: 173) who noted limited information literacy skills and expertise amongst international students. In terms of personal needs, a majority (60.2%) of students reported either accommodation (34.9%) or health issues (25.3%).

The current study considers both academic and personal information needs of the international students. It covers public universities in the KwaZulu-Natal Province, compared to the previous related study which covered only one university's campus. Nkomo (2009) only investigated two universities, but without focusing on a specific level of study or differentiating international students from local students whereas the current study focuses primarily on international postgraduate students enrolled in the Humanities/Arts disciplines and includes a large sample size of 232 participants. The previous study done by Majyambere (2012) included only one interview with the Head of the International Students Office, while the present study interviewed three Heads of International Student Offices from the surveyed universities. In terms of data collection techniques, the current study added a focus group discussion tool with the aim of supporting the questionnaire and interview tools.

### **3.4 Information sources used by international students**

This section identifies the different sources of information used by international students in an academic environment. Bates (2006: 1035) basically argued that “anything human beings interact with or observe can be a source of information”. Vakkari (1998: 368-369) basically underlines two types of sources such as internal or personal information sources and external or impersonal information sources. This section also contributes to determining and explaining more precisely the preferred information resources and channels used by international students. It addresses the second key research question presented in Chapter One (section 1.5). It discusses in-depth the literature related to information sources as briefly introduced in section 1.10.5 of Chapter One.

### **3.4.1 Sources of information in the academic environment**

Case (2002: 12) argued that one vital distinction that is made in the literature on information seeking is between formal and informal sources of information. Informal sources involve family, friends and colleagues, whilst, formal sources include mainly books and reference materials such as dictionaries and encyclopaedias. Agarwal (2011: 48) describes an information source as ‘a carrier of information’ which involves both traditional sources including books and people, and modern sources predominantly including digital libraries and search engines involving the use of electronic resources. Martell (2008: 406) also revealed a consistent increase in the use of electronic resources. Campbell (2006: 18) outlined that “even before the web was introduced, academic libraries have started to create digital libraries of trustworthy information”. McGarry (2003: 371) considers a library as the best source of well-arranged resources which are efficiently used by users, including students.

Gorman (2000: 10-11) discussed the ‘collection’ concept in the digital environment which involves tangible materials or print resources and remote intangible resources (electronic/online resources). Allan (2010: 90) revealed that the accurate use of numerous sources depends on the experience of students within the academic research context. Niu and Hemminger (2012: 336) conceded that the use of various electronic resources such as electronic journals, online databases, and digital libraries, has critically changed the traditional way of searching academic resources. For example, Holliday and Li (2004: 363) remarked that students at a senior level expect to retrieve all necessary information easily and quickly from the use of the Internet. Harvell (2012: 59) asserts that online resources have considerably influenced the way of storing and accessing current scholarly works. For instance, Haddow (2013: 129) argued that “accessing electronic resources and borrowing are commonly used indicators of library use”. Reid (2003: 13-14) also highlighted the use of the Internet in libraries. Recently, Büttcher, Clarke, and Cormack (2010: 2) noted that many people prefer to search information from Google than using printed documents. Hiemstra (2009: 14) noted that the web search engine ‘Google’ was launched in 1998 by Brin and Page. Ayres and Jacobs (2004: 113) pointed out that Google is deemed the most useful search engine by students. Basch and Bates (2000: 43)

further expressed that search engines serve as powerful tools for web searching. Cooke (2001: 15) notes that “search engines are automatically generated databases of web-based materials”.

Case (2012: 4) notes that “the Internet could serve as metaphor for information behaviour and the way our view of it has changed”. Okeke (2008: 12) also mentioned that through the use of these electronic resources it is possible for libraries to make information more accessible to users than ever before. Doraswamy (2010: 5) asserts that: “modern academic libraries adopt modern information techniques to render its services more effective”. Hawthorne (2008: 2) also supported that the use of electronic resources may significantly enable information providers “to make access to resources more direct, convenient and timely for the user”. NKomo (2009) also indicates a consistent increase of electronic sources in the scholarly environment. Tenopir, Tenopir, Hitchcock and Pillow (2003: 36) indicate that students frequently acknowledge the benefits related to the convenience and speed of access to and the use of electronic journals for the purpose of their academic careers. Connaway, Dickey and Radford (2011) further described convenience as a key factor when searching for information.

However, Earp (2008: 74) reported that library staff and academics have to remember that the availability of full-text electronic resources offered to students is helpful but it does not necessary guarantee enough information and print materials may also be complementary useful information resources. Kuhlthau (1994: 104) notes that students can learn methods of searching library resources to obtain information on their study focus from a variety of sources. Kadebe (2002: 14) maintained that library and other information centres have historically used print-based information sources for a long time as the principal media for storage and communication of recorded information content. Over time, Webb, Gannon-Leary, and Bent (2007: 125) acknowledged the impact of new information technology changes in academic communication. For example, De Bruyn (2007: 114) noted that technological change goes hand in hand with changes in access to information.

Liu (2006: 583) further mentioned that “electronic resources and digital libraries have already influenced and changed the way students and scholars use print resources and traditional libraries”. Brophy (2005: 52) notes that the print-based model and digital model are still



complementing each other and they both create benefits for academic libraries. Bazillion and Braun (2000: 24) provide that “librarians with traditional skills have suffered a relative loss in status”. Rowley and Roberts (2009: 197) advocated that information professionals, including mainly librarians, should change and adapt with technological changes especially in the recent academic environment. Jefcoate (2010: 27) observes that the library no longer serves students as ‘a place for information and a study environment’ as it did traditionally. Lawson (2010: 137) argued that librarians “struggle to maintain and expand accessibility in an increasingly complex environment”. Pinfield (2001: 33) also affirms that the role of the traditional librarian is rapidly changing due to the current technological change within the academic environment. Hawthorne (2008: 2) and Stubbings (2012: 197) highlighted that electronic resources brought a dramatic change to the way users may access library resources. In other words, librarians are expected to deliver a value-added access service to the scholarly community (Wiley and Harer 1999: 115). Heath et al. (2010: 165) also maintained that digital collections influence “researchers’ information seeking needs and habits”.

Reid (2003: 15) and Vondracek (2003: 20) argued that the creation of the digital library has provided various advantages for library users, including students. Woodward (2010: 1) underlined that no matter how technology changes, it is still the role of a librarian to have a positive impact on providing access to available resources. Downlin (2004: 27) indicated that digital libraries focus largely on the content of their resources rather than simply on physical buildings. Therefore, Chowdhury and Chowdhury (2004: 6) recommended that graduate students would need to be taught how to identify resources and retrieval mechanisms especially within the digital age which influences the academic research process. For instance, Baro, Onyenania, and Osaheni (2010: 109) note that it is important to incorporate Information Literacy (IL) instruction in the university curriculum. Many universities in South Africa offer information literacy instruction generally to first year students (Jiyane and Onyanha 2010: 11). The information literacy session would be as beneficial if not more so for graduate students, particularly to international graduate students (section 3.6.2) because some of them have completed their first degree outside South Africa and with differing access to and experiences of academic resources.

Bao (1998: 540), Wilson (2003: 450) and Mutula (2005: 591) note that the Internet is an important source of information and creates positive changes in academic environment. Nachmias and Segev (2003: 145) revealed that the use of the Internet as an instructional tool in higher education was rapidly increasing. In terms of Internet use in the academic environment, Barjak (2006: 1350) notes that the use of the Internet allows the researchers, including graduate students to keep up-to-date within scholarly publications. On the other hand, Schofield and Davidson (2002: 142) pointed out that it is important to consider how much the Internet is being used by lecturers and students and also how regularly the use of the Internet occurs. In this regard, Kheswa and Hoskins (2012: 131) revealed that third year students from Humanities spend an average of eight hours per week using Internet facilities and the main motives for Internet usage by these students were outlined as:

- Web and search engines mainly for learning purpose;
- Email services were used basically between students and lecturers;
- Social networking were used largely for social interaction;
- Telnet was occasionally used by students; and
- File transfer was rarely used to share files from their computers (Kheswa and Hoskins 2012: 131-134).

Nachmias and Segev (2003: 146) argued that the Internet was used a great deal for information transfer from the lectures to students at the Tel-Aviv University. Hughes (2005: 171) states that international students also extensively use the Internet and academic journal databases such as Emerald and Proquest among others. However, Tenopir, Hitchcock and Pillow (2003: 36-37) have discussed a number of disadvantages with the use of online resources or databases, including access to adequate technology and effective online access primarily requires users to be equipped with the necessary information technology skills. Hoskins (2002: 36) and Porter (2005: 336) mentioned that there is a critical need in higher education in terms of locating and evaluating information resources gathered from the Internet and bibliographic resources in order to ensure their quality and reliability for academic research purposes.

Holliday and Li (2004: 356) and Otero-Boisvert (1993: 159) noted the impact of electronic resources on academic research. Weiler (2004: 49) and Adams (2010: 70) indicated that

students have to acquire the necessary cognitive skills for finding and evaluating information. For instance, Beile, Boote, and Killingsworth (2004) examined the searching expertise of doctoral students in education and the findings revealed that at least one out of every ten citations used was from an Education Resource Information Center 'ERIC' document, a dissertation, or an abstract of a dissertation. This choice may imply the existence of a relationship between an international student's library use, as the main source of information, and their education background as a demographic variable other than age and gender variables.

Brand-Gruwel, Wopereis, and Walraven (2009: 1207) noted that students have "to identify information needs, locate information sources, extract and organise information from each source, and synthesise information from a variety of sources". This set of activities is regarded as Information Problem Solving 'IPS' and it is a concept that combines the skills needed to access and use information (Brand-Gruwel, Wopereis, and Walraven 2009: 1207). In terms of information skills, McClure (1994: 118) and (2001: 249) highlighted that people need media literacy and network literacy as key supportive elements in the context of information problem solving skills. Gammon and White (2011: 329) viewed that "today's students are powerful consumers and producers of media. Yet for all their access and use of media, many students need assistance from educators to develop critical media skills". Sterne (2005: 249) then admitted the move towards digital media. Along the same lines, DaCosta (2011: 35) also describes digital literacy as "the ability to perform information literacy tasks within a digital environment". Eisenberg, Lowe, and Spitzer (2004: 8) indicate that digital literacy does not only involve the wide range of online resources but it also contains the critical analysis of the gathered resources. McClure (1994:115) describes network literacy as the ability to apply information received from multiple online resources.

Barry (1997: 226) argued that postgraduate students must have searching skills of electronic resources. This could be important to graduate students because they have to conduct more research when compared to undergraduate students (Kheswa and Hoskins 2012: 121). Nwagwu (2012: 66) pointed out that "engineers and humanists often consult multiple sources of information that depend on personal, professional and other criteria". Zawawi and Majid (2001: 31) indicated that many scientists reported that books were the most selected information

sources for teaching and learning purposes. Thus, books may arguably be considered as authoritative sources of information for learning purposes of the graduate students irrespective of their academic disciplines.

Harris and Dewdney (1994: 27) observed that “people tend to seek information that is easily accessible, preferably from interpersonal sources such as friends, relatives or co-workers rather than from institutions or organisations”. Along the same line, Henefer and Fulton (2005: 226) also noted the role of interpersonal communication as a popular source of information. Wilson (1997: 562) further notes that interpersonal sources of information often play a vital role in reducing uncertainty for an individual since they provide immediate feedback and social support. Krikelas (1983: 9) also mentioned that people often seek information with the aim of overcoming uncertainty. Ward and Masgoret (2004: 44) indicated that international students often consult university-based offices such as the international student office, student housing office, counselling, health and funding centres, and sports union office. Tahir, Mahmood and Shafique (2008: 4) found that most of the Arts and Humanities teachers prefer personal meetings or face-to-face discussions over other channels of communication such as electronic email and telephone communication. For the purpose of this study, the communication preference of Humanities academics may arguably provide an insight to the understanding of the preferred way of interaction of Humanities/Arts international students.

It was important to note that Kim and Sin’s (2007) study discussed the selection of information sources by undergraduate students. The participants were given an opportunity to select the five most relevant characteristics as selection criteria and rank them based on their perceived level of importance. Kim and Sin (2007: 658-9) further noted the choices of information sources were based on accuracy/trustworthiness, accessibility, ease of use, comprehensive, and efficiency/time saving. Barry and Schamber (1998: 227) provided three other criteria such as quality of sources, verification, and effectiveness of sources. Rieh (2002: 145) also stresses the evaluation of information quality. Evans and Saponaro (2005: 21) argued that people usually look for information from both formal and informal sources/systems. Leckie, Pettigrew, and Sylvain (1996: 183-187) discussed the sources commonly used by professionals including librarians, colleagues, handbooks, journals, and their own personal knowledge and previous

experience. Marouf and Anwar (2010: 536-538) discussed the main information sources, including formal and informal sources used by social sciences academics and the purposes of their usage. However, some of these sources of information might arguably also serve the community of international students enrolled in the Humanities/Arts. The main information sources were the following: journals; books; papers presented in conferences; theses/dissertations, abstracts and indexes (Marouf and Anwar 2010: 538).

Moreover, Marouf and Anwar (2010: 537) mentioned that the purpose of using these sources in particular included: class preparation, research activities, consultation work, keeping up-to-date, and personal development. Along the same lines, Abdoulaye (2002: 193) provided that formal sources of information that were mostly consulted for academic studies by African international students studying in Malaysia. These sources included:

- Library books usually have information of good quality and are relevant for academic research tasks, according to Martin (1985: 33);
- Periodicals or journals have the advantage of providing updated information;
- Textbook materials;
- Internet has the advantage of easily and quickly reaching other published electronic resources such as electronic books, online journals, and other sources (Kumar 2011: 37);
- Online Public Access Catalogue (OPAC) particularly allows students to quickly search and locate available library resources using the appropriate keywords (Kumar 2011: 34);
- Lecturers' handbooks and notes as well as supervisors guidelines;
- Academic librarians including primarily reference librarians and subject librarians;
- Online databases subscribed to university libraries; and
- Consulting colleagues and friends (Abdoulaye 2002:193).

Herman (2001: 453) provided that the use of online databases purposefully enable users to gain access to many sources of information. Kadebe (2002: 15) also added that students frequently consult some of the common current electronic resources such as online databases, the Internet and OPACs. Webster (2008: 25) notes that "the OPAC continues to be the primary public search tool". MacWhinnie (2003: 241) underlines that academic librarians need to ensure the effective use of OPACs for the benefits of users. However,

Alvite and Barrionuevo (2011: 55) indicate that “it is inevitable that users do not find the OPACs easy to use”. On the other hand, Ward and Masgoret (2004: 51) investigated the experiences of international students in New Zealand, and they found that informal sources are viewed as more readily available than formal ones by students. Kim and Sin (2007: 662) discussed three aspects related to the students' use of sources to meet their academic requirements and these included:

- The frequency of using different information sources;
- Source characteristics considered as important criteria for source selection; and
- Perceived characteristics of information sources.

### **3.4.2 Preferred information resources and channels used by international students**

Earp (2008: 74) witnessed that there are few empirical studies related to information resource preferences, regardless of academic discipline or the student level of study. Hertzum and Pejtersen (2000: 7) indicated that whenever information is not available in textual or other recorded form, there is a need for an individual to record information in writing and this process takes time. Although depending on the user's career or profession, human and paper sources may sometimes be considered as preferred resources over electronic/digital resources but this happens not because of choice but rather by necessity (Mehdi et al. 2010: 23). Liu (2006: 587) found that “students in LIS and social sciences use print sources more frequently than those in computer science and business”. Tahir, Mahmood and Shafique (2008: 4) found that Arts and Humanities academics prefer print documents over electronic materials and audio-visual materials were the least preferred format. However, there were no guarantees that the preference of print documents over electronic resources should necessarily apply equally to Humanities/Arts students.

Majid and Tan (2002: 318) suggested that there should be a well-planned campaign to introduce electronic sources to library users because these researchers found the use of databases and electronic journals by computer engineering students to be at a lower level compared to their preference for printed materials. Nwagwu (2012: 68) also indicated that Arts postgraduate students ranked audio-visual materials as the least preferred compare to print and electronic

resources. Mawindo and Hoskins (2008: 89) also noted that students studying at the University of Malawi, College of Medicine preferred to use more print materials than electronic resources. On the other hand, Foley (2010: 37) pointed out that a small number of international students preferred to use electronic databases and e-books, whilst, a majority of these students preferred to use search engines or printed books. Liao, Finn, and Lu (2007: 23) also indicated that international graduate students often find information in library books for academic purposes. However, Brown (1999: 929) and Hemminger et al. (2007: 2206) noted that while researchers indicated a preference for searching electronic documents, they still chiefly read print journals.

Lane, Chisholm, and Mateer (2000: 231-232) indicate that today universities render Internet services to students through the library or the computer centre. Chen et al. (2009: 459) further provided that “information on the Internet can be accessed anytime and anywhere”. In addition, Junni (2007: 1) also noted the usefulness of Internet sources for master’s students when seeking information for writing academic research projects. Feather and Sturges (2003: 3-4) highlight two main roles of academic libraries and these are to provide for the education needs of students and to assist the lecturers in equipping them with up-to-date teaching resources. Zhang (2001: 141) notes that in some respects librarians are also educators. However, Buchanan, Luck and Jones (2002: 145) indicated that “user expectations regarding electronic access to information are increasing. Academic library collections are evolving from primarily print-based collections to growing electronic collections”. Crowley and Spencer (2011: 215) also observed that the range of digital resources was continuously growing. Leighton and Weber (1989: 13) note that “computer-related technology is revolutionising library operations”. Budd (2005a: 13) then describes academic library as “multifarious and subject to evolution”. Similarly, Downlin (2004: 23) outlined three main driving forces that influence change in academic libraries and these include “technology development, library function, and librarian’s roles with technology”. Marcella, Baxter, and Moore (2002: 185), Chowdhury and Chowdhury (2004: 16) perceived that improvements in technology were made and led to multiple accesses of resources for users.

Niu and Hemminger (2012: 336) reported that

“nowadays, academic researchers have convenient and easy access to an unprecedented amount of electronic scholarly resources while also facing a dizzying array of different types of content delivery, including books, journals, web pages, and online databases”.

Craswell and Hawking (2009: 87) noted that “web pages link each other”. Sathe, Grady, and Giuse (2002: 240) found that “the most-cited reasons for preferring electronic journals included ease of access, ease of printing, and ease of searching”. Schell, Ginanni, and Heet (2010: 87) added that different users can access and use similar articles at the same time which is a key benefit of online resources. Mutshewa and Rao (2000: 315) argued that within the current technology era, it is no longer necessary for users to physically come to the library buildings. In other words, Anderson (2010: 42) provides that online sources reliably assist libraries to decrease physical printing and distribution challenges. Fidel and Green (2004: 572) also considered aspects related to the ‘time saving’ of the user through remote access during information seeking. Hughes (2005: 171) noted that when international students were browsing online resources, they tended to opt for items which appeared on the top of the list of results, they also preferred the more recent articles, but they did not pay too much attention to the assessment for the quality or authoritative of resources acquired online. Cooke (2001: 132) delineated key elements to consider in terms of assessing sources of information such as coverage, currency, authority and accuracy. Campbell (2006: 16) perceived that academic libraries must always provide students with access to trustworthy and authoritative knowledge. Similarly, McDonald (2010: 48) notes that academic libraries provide support for learning, teaching and research activities at the universities.

Orr, Appleton and Wallin (2001: 457) noted that “increased access to technology has altered the way that students study, while the variety of electronic information resources has widened the potential resource base for all students”. Glynn and Wu (2003: 128) note the importance of ensuring that library resources are easily accessible. Similarly, Barnard (2000: iii) maintained that there is “a common desire of most students to be able to access library resources remotely through the Internet”. Brach (2000: 18) notes that libraries contribute greatly in terms of providing access to electronic resources. Tahir, Mahmood and Shafique (2008: 4) explained that Arts and Humanities academics do most of their information seeking activities at home,



remotely through Internet access, instead of visiting the library. Chen, Boase and Wellman (2002: 109) mentioned that “Internet is not only a resource to consume, but also a means to access and use opportunities” Kheswa and Hoskins (2012: 124) noted that the Internet was used by many students to communicate with academic staff (learning purpose) in order to boost their academic performance. Urrehman (2000: 177) argued that the Internet is the most extensively used online information resource in the academic environment. Jones, Andrew, and MacColl (2006: 2) also noted that the Internet is the largest electronic library.

Liu (2006: 583) indicates that graduate students use both printed books and electronic resources for their learning purposes. To corroborate this view, Mawindo and Hoskins (2008: 89) also pointed out that students often use both electronic and print documents. Today “more of the print collection becomes available online” (Langley, Gray, and Vaughan 2003: 86). Similarly, Perley et al. (2007: 178) observed that the choice of print or electronic resources mostly depends on convenient access to available resources, but the level of knowledge and skills is also important to be able to negotiate existing information systems/sources. Tahir, Mahmood and Shafique (2008: 4) pointed out that consultation with knowledgeable persons including librarians, in the field was ranked as the major source of valuable information for the research, followed by reference books and then by discussions with colleagues. In this context, Savolainen (2010b: 75) reviewed Savolainen and Kari’s (2006) study focusing on user-defined relevance criteria in web search information seeking practices. Savolainen (2010b: 79) further reinforced five main criteria used in the designation of source preferences. It was important to note that these five criteria were also seen to be relevant for the purpose of the current study and they were then considered within the seeking behaviour framework of international postgraduate students. These criteria include:

- Availability and accessibility of information sources;
- Content of information;
- Usability of information sources;
- User characteristics; and
- Situational factors of information seeking.

Langley, Gray, and Vaughan (2003: 86) maintain that “electronic resources affect how the public performs library research”. Bar-Ilan, Peritz and Wolman (2008: 356) further delineated some of the fundamental motives often considered by academic staff whenever they are selecting electronic resources. These might arguably also become vital reasons for international students when they are assessing electronic resources. These include:

- Easy access;
- Current information available online;
- Access to more resources in one database;
- Many users can use the same source of information at the same time;
- Cross referencing; and
- They allow remote access.

Zhang (2001: 141) states that the Web provides students with various resources for their research projects. In other words, Cassell and Hiremath (2013: 10) indicate that academic libraries create websites with the aim of making easy links to their available resources. Cooke (2001: 135) refers to the library website as an essentially useful resource. Bailey (2011: 17) highlights that “most library websites have a separate portal or gateway for searching electronic resources”. It was important to note that Bowers and Stevens (2010: 89) provided four major standards to evaluate websites such as accuracy, authority, objectivity, and currency. This evaluation enables scholars and other researchers to a certain extent to rely on the information gathered from a particular website (Willis 2004: 21). Similarly, Grix and Watkins (2010:2) noted that sound evaluation of resources is very important for academic matters. Holliday and Li (2004: 356) revealed that generally undergraduate students not only need to be taught how to adapt with technological changes but, according to Wallace and Wray (2006: 9), postgraduate students particularly need critical thinking skills to make a proper evaluation of available electronic resources.

Sluss and Farmer (2007: 40) explain that “websites have replaced traditional print form of ready reference information”. Nachmias and Segev (2003: 146) further mentioned that the Web had supported many forms of students’ interactivity and engagement, and promoted access to a vast repository of important resources. Kuh et al. (2008: 542) maintained that “engagement

represents both the time and energy students invest in educationally purposeful activities”. On the other hand, Perry (1998: 137) initially indicated that “use of email by college students was so common that for some of them it’s like picking up a phone”. Shezi (2005: 51) indicated that the most mentioned reason for using email by students at St Joseph’s Theological Institute (KwaZulu-Natal) was related to “communication with friends and relatives in and outside South Africa”. Kheswa and Hoskins (2012: 132) recently also revealed that this was a similar motive to use the Internet by third year students at the UKZN, Pietermaritzburg Campus. This was relevant for the purpose of the present research, since international students more often need to communicate with their relatives back home outside South Africa.

### **3.5 Information seeking behaviour of international students**

There are very few studies that have focused on information seeking behaviour of international students and even these studies were generally based on library use and perceptions rather than covering both academic and personal needs of these international students. Such studies include those of Safahieh (2007), Mehra (2007), Jackson (2005), Curry and Copeman (2005), Baron and Strout-Dapaz (2001), and Liu and Redfern (1997). In this context, similar studies were also conducted but the focus was on a comparison between local and international students such as those by Liao, Finn, and Lu (2007), Song (2004), and Ramburuth and McCormick (2001), but the current study did not have any intention of comparing host and international students. Therefore, the study reviewed the relevant literature on information seeking behaviour of international students worldwide with particular reference to South African universities. Moreover, this section reviews literature on information seeking. It includes information seeking in the general context, the different factors that affect information seeking, and international students’ information seeking behaviour in a particular context. It then discusses various information problems that international students face while they are acquiring information. This section explains in depth the information seeking concepts delineated in Chapter One (section 1.10.3).

### **3.5.1 Information seeking behaviour of students**

Case (2012: 5) defines information seeking as “a conscious effort to acquire information in response to a need or gap in your knowledge”. Bates (2002: 3) discusses that information seeking has to be considered “with respect to all the information that comes to a human being during a lifetime, not just in those moments when a person actively seeks information”. Kuhlthau (2004: 13) further points out that “information seeking is a primary activity of life. People seek information to deepen and broaden their understanding of the world around them”. Wiberley and Jones (1989: 638) described information seeking behaviour as “an aspect of scholarly work of most interest to academic librarians who strive to develop collections, services, and organisational structures that facilitate information seeking”. Similarly, Cassell and Hiremath (2013: 350) recommend that subject librarians have to understand the research ability of graduate students, including international students in their information seeking process upfront.

Case (2002: 5) states that information behaviour begins with uncertainty and it then represents the activity used to find information. Ikoja-Odongo (2002:12) notes that information seeking involves the manner in which an individual goes about looking for information to address some problem. Marchionini (1995: 6) describes information seeking as “a process which is closely related to learning and problem solving”. Heinström (2003: 1) states that the information seeking process is basically dynamic and changeable. Within the LIS context, the information seeking process is often dependent on a task (Byström 2000), a discipline (Ocholla 1999) or the stage of the research process (Kuhlthau 2004). Eisenberg, Lowe, and Spitzer (2004: 358) noted that when seeking information, students had failed to explain their questions, retrieve information, and evaluate the information.

### **3.5.2 Factors that affect information seeking behaviour of students**

Niu and Himminger (2012: 336) indicated that “many factors were found to affect the specific information seeking behaviours of scientists, including demographic, psychological, role-related, and environmental factors”. Budd (2005a: 32) noted that “colleges and universities are

complicated environments, incorporating a variety of very different kinds of work”. Therefore, Downing, MacAdam and Nicholas (1993: 6) note that “it is important to understand factors that will contribute to the success and the challenges that must be overcome”. Andrade (2006: 131) states that the academic achievement of international students is often affected by three main factors such as “English proficiency, academic skills and educational background”. Particularly, Ramburuth and McCormick (2001: 346) argued that international students expressed issues related to “the impact of socio-cultural and environment factors on students’ learning and choices and behaviours”. Krikelas (1983: 68) notes that work-related circumstances reflect the information needs of a specific group of people. According to Song (2004), the level of education can influence the information needs of students.

Mehdi et al. (2010: 23) mentioned two supplementary factors generally affecting the information seeking behaviour of students and these include time because students are learning under time constraints which put them under pressure, and the possible limited access to academic resources. Case (2002: 35) argues that the time pressures may vary, depending on how urgently information is needed. Mehdi et al. (2010: 23) found substantial relationships between seeking information from human and paper resources and time limitations and poor accessibility to computers. Okello-Obura and Magara (2008) and McKnight et al. (2002: 64) observed that information access may take many forms ranging from looking up information on a computer to in a textbook, amongst others. Consequently, Kim and Sin (2007: 663) argued that lack of accessibility to appropriate information resources might create limitations for the achievement of the task in hand, for instance, academic research activities for graduate students. Mawindo and Hoskins (2008: 89) found that limited access to computers and poor information literacy skills led to inefficient use of electronic resources. Shezi (2005) and Ngulube (2010: 45) revealed a similar situation amongst students studying at the St Joseph Theological Institute in South Africa, for example, students had poorly used Internet resources, particularly search engines and consequently these factors negatively influenced the searching behaviour of these students.

Evans and Saponaro (2005: 22-23) noted that some factors influence people when seeking information such as level of education, cultural background, and group membership among

others. Yi, Lin, and Kishimoto (2003) also identified three aspects of demographic factors and these include gender, age and education level. For instance, Whitmire (2001: 532) noted that undergraduate students were occasionally engaged in library experiences compare to graduate students. In this context, Thomson, Rosenthal, and Russell (2006: 3) regarded these three demographic factors as background variables and they then added situational variables which often affect cultural adjustment of international students such as social interaction with host students and length of stay among other many factors. Yi, Lin, and Kishimoto (2003: 333) further maintained that demographic factors critically add value in predicting international student patterns of utilising counselling services.

In terms of the gender variable, Hanassab and Tidwell (2002: 305) indicate that in some respects “female students typically have greater needs than the male international students for campus services”. According to Howard, Rainie, and Jones (2002), people with different socio-demographic characteristics look for different content online. In the review of survey research on Internet use, Howard, Rainie, and Jones (2002: 45) indicated “significant differences in use between men and women, young and old, those with different race and ethnicity, and those of different socio-economic status”. However, Erasmus (2000: 185) revealed that issues related to differing race and ethnicities in the South African academic context are naturally complex. In the context of gender differences in the online reading environment, Liu, (2008: 5) maintained that “female readers have a stronger preference for paper as a reading medium than male readers, whereas male readers exhibit a greater degree of satisfaction with online reading than females”. In contrast, Yi (2007: 669) argues that “gender and age make no difference in predicting library use by international students”. In terms of related seeking behaviour patterns, the current study has also considered education level (postgraduate) of international students rather than merely relying on their age or gender factors.

Myers, Martin and Mottet (2002: 122) viewed that in terms of communicating with instructors, generally students have five motives and these include “relational, functional, participatory, excuse making and sycophantic”. Particularly, Al-Muomen, Morris, and Maynard’s (2012) study explored modelling information-seeking behaviour of graduate students at Kuwait University, Kuwait. The study revealed that factors influencing graduate students’ information-

seeking behaviour were found to be related to library awareness, information literacy, environmental issues, source characteristics, and demographics specifically gender and nationality. Kuruppu and Gruber (2006: 610) and Nwagwu (2012: 72) highlighted that librarians should make students aware of available academic resources in the library.

Marouf and Anwar (2010: 533) argued that awareness involves “the extent to which different kinds of sources, media, systems, documents, materials, or channels were employed”. For instance, Callinan (2005: 86) revealed that “lack of awareness is the primary reason why undergraduate biology students did not use the library’s electronic databases” in the University College Dublin. In other words, the awareness of library services is a critical element to take note of (September 1993: 76). Ayres and Jacobs (2004: 109) advise that proper marketing services deal with identifying potential user’s needs and timeously making them aware of available services in order to effectively satisfy their needs. However, Alvite and Barrionuevo (2011: 98) pointed out that marketing is not yet considered as a central feature for many academic libraries and some of these libraries do not consistently assess their marketing services. White (2008: 70) argued that proper assessment of library services define the library’s strategic options and responses within the university environment. Marouf and Anwar (2010: 533) further mentioned that “the awareness approach of the same model refers to the level of awareness of users about the sources that are used”. Wang (2008: 9) concluded that good library marketing is necessary because many international students are not aware of their subject information resources.

Punchihewa and Jayasuriya (2008: 129) note that users are often not aware of the availability of databases other than those they primarily use. Khalid (2000: 179) mentioned that “technology has changed the entire concept of libraries from holding to access”. It is imperative to note that consistently there is an increase in ‘remote users’ (Smith and Montanelli 1999: 137). Furthermore, Slade and Kascus (2000: xx) highlighted the “emphasis on remote access to electronic resources”. Poll and Boekhorst (2007: 112) expressed that “traditionally libraries offer the use of their collections and services via a user’s visit to the library as physical place”. Perley et al. (2007: 177) briefly provided reasons why information seekers do not physically visit the library and why they tend to use library websites through remote access:

- Limited time due to other work/tasks;
- Convenient access to a computer with Internet connection;
- Lack of awareness of available library services;
- Poor arrangement of a full range of library collections or resources;
- Inconvenient library opening hours;
- Inconvenient physical location of library premises;
- Availability of resources from the Internet; and
- Alternative information sources from lecturers and supervisors.

Moreover, Ayres and Jacobs (2004: 112) and Rieh (2002: 145) discussed the implications for Web design and argued that when designing a website, it has to be easily marketable. To corroborate this view, Poll and Boekhorst (2007: 88) briefly outlined the quality of a library website which included various features such as content, language, structure, design, navigation, and accessibility. Agarwal (2004: 117) mentioned that a website has to be friendly and easy to use. Poll and Boekhorst (2007: 89) further note that the homepage represents a significant fragment of the website. However, Gale (2006: 37) pointed out that “a web presence for international students was minimal”. Nielsen and Loranger (2006: 32) further maintained that “the main goal of a home page is to guide users”. However, Bent, Scopes, and Senior (2008: 9) acknowledged that very few libraries provide web pages particularly for international students. Since the home page gives a picture of the library, it can then sometimes complicate the user’s search process if it is not well designed (Spivey 2000: 151). Scholz-Crane (1998: 53) focused on investigating how students evaluate information from the Web. Gammon and White (2011: 329) revealed that students need to improve the necessary skills to effectively evaluate and use online sources. On the other hand, Dadzie (2005: 292) added that students often suffer from three major situations and these involve inadequate number of computers in a library, lack of information about how to use electronic resources and lack of time to acquire skills needed to use these resources. Prabha, Connaway, and Olszewski (2007: 77-79) have further discussed the following factors that negatively impact on information seeking behaviour:

- Information users’ feeling that they obtained sufficient information and that they consulted trustful sources;
- Lack of time and limited financial resources;



- Nature of the problem to be answered or question to be solved;
- Nature of task at hand and task-domain knowledge;
- Context, situation or setting in which the information user is living;
- Particular search system; and
- Motivation level of the information user and her/his information seeking ability.

### **3.5.3 Information seeking behaviour of international students**

Liu (2013: 1) states that “information seeking is a complex communication process that involves the interaction between the information seeker, the information, and the information provider”. Some studies have investigated the information seeking behaviour of human beings in the worldwide context including Fisher, Erdelez, and McKechnie (2005) and Case (2012), while in the South African context, Stilwell (2010); Mostert and Ocholla (2005); and Fourie (2002). There are empirical studies focusing on information seeking behaviour of graduate students in general such as George et al. (2006); Sexton (2006); Washington-Hoagland and Clougherty (2002); and Fidzani (1998). The studies focused on specific disciplines such as the information seeking behaviour of education graduate students by LeBaron et al. (1998), and Schneider (1987), Beile (2002), Haycok (2007) and Earp (2008). There are a few studies related to the information seeking behaviour of Humanities/Arts graduate students including those by Hadebe and Hoskins (2010), Thani and Hashim (2011), Nwagwu (2012), and Barrett (2005). According to Song (2004), Liao, Funn, and Lu (2007), and Sehoole and Lee (2014) there are very few academic studies particularly related to the information seeking behaviour of international graduate students.

Savolainen (2010a: 1780) noted that information seeking patterns can be divided into two main types: work-related (job related) and non-work context. In terms of work-related, Thani and Hashim (2011: 137) described information seeking patterns of graduate students to meet their academic information needs through the use of various information sources, as they form a vital competency. In terms of non-work, Savolainen (2010a: 1780) argued that people prefer to use the term ‘everyday life’ information seeking instead of using the word ‘non-work’ information seeking. Savolainen (1995: 266-267) defined everyday life information seeking (ELIS) as “the

acquisition of various informational elements which people employ to orient themselves in daily life or to solve problems not directly connected with the performance of occupational tasks”. Wilson (1977: 36-7) indicated that people frequently discover information in everyday life while monitoring the world. Unlike work-related information seeking, ELIS basically involves activities that contribute “to solve problems not directly connected with the performance of professional tasks or full-time study” (Savolainen 2010a: 1781). However, the current study focused more on academic work-related information seeking than merely everyday life information seeking of international students.

De Jager and Nassimbeni (2003); McCroskey (1984: 261); and Spenner (1990: 430) noted that competence or skills involve the ability that allows people to perform well on tasks. The South African Council on Higher Education (2001) outlined the graduate competencies or skills required by each graduate from South African higher education institutions and these include: computer literacy, information skills, and problem-solving competencies, amongst others. In terms of information seeking patterns, Savolainen (2002: 211) narrowed network competence into four major areas:

- Knowledge of information resources available on the Internet;
- Skilled use of the ICT tools to access information;
- Judgment of the relevance of information; and
- Communication.

Kuhlthau (1993: 16) and Savolainen (2002: 221) argued that computer literacy consists of understanding the way computers operate as well as competence in using computers. Isaac (2002: 27) notes that computer literacy involves being capable of identifying what task an individual needs to accomplish, and also determining whether a computer will assist in completing a specific task. In this regard, Sayed (1998: 2-3) and Hart (1998: 37) noted that an information literate person should have the ability to timeously identify situations in which the right information is needed. Doyle (1992: 8) discussed multiple attributes of which an information literate person, including postgraduate student should have and these include:

- Recognise that accurate and complete information is the basis for intelligent decision-making;

- Identify the need for information;
- Formulate key questions based on information needs;
- Determine potential sources of information;
- Develop successful search strategies;
- Access accurate sources of information;
- Evaluate information received;
- Systematically organise the information collected;
- Integrate new information into an existing body of knowledge; and
- Use information gathered in critical thinking and problem solving (Doyle 1992: 8).

Eisenberg, Lowe, and Spitzer (2004: 5) maintained that “information literate students are competent, independent learners. They know their information needs and actively engage in the world of ideas”. Mitrano and Peterson (2012: 186) added that literate students enter the labour market with the necessary skills to cope with the digital reality. In South Africa, Minishi-Majanja (2009) investigated the higher education qualifications framework and the changing environment of LIS education and training in South Africa. As a result, Minishi-Majanja (2009: 148) noted that South African universities put in a lot of effort “to attract students and produce employable graduates”. Furthermore, Mostert and Nthetha (2007: 39) indicated that if the instructor is not computer literate, students are then deprived of using the available computer facilities effectively.

Budd (2005a: 203) noted that information technology becomes a key element for efficient use of library resources. Eisenberg and Johnson (2002) as well as Eisenberg, Lowe, and Spitzer (2004: 44) argued that the Big6 information skills model is considered important for teaching information and technology skills in universities. Lowe and Eisenberg (2005: 65) noted that the six components of the Big6 skills model include: task definition, information seeking strategy, location and access, use of information, synthesis, and evaluation skills. These stages are relatively flexible (Eisenberg and Brown 1992). Furthermore, Olen (1995: 59) recommended that academic instructors in South African universities should continuously find ways for students to “develop the information skills necessary to locate, select, organise and present information in a systematic way”.

According to Prabha, Connaway and Olszewski (2007), the situational context of undergraduate and graduate students' specific information needs and their role in academic society may affect every stage of their search for information. Cool (2001: 8) indicates that "contexts are frameworks of meaning, and situations are the dynamic environments within which interpretive processes unfold, become ratified, change, and solidify". Earp (2008: 73) argued that graduate students in different academic disciplines apply different methods during the information seeking process in order to meet their perceived needs. McKenzie (2003: 26) noted that active seeking is the most direct mode of information practice and it is characterised by the seeking of an already determined source, conducting a systematic search for information. Since some international students consider the library overwhelming (Norlin 2001: 60); the information professionals must positively meet the information needs of users (Fourie 2010: 37).

Thani and Hashim (2011: 137) then highlight the importance of understanding the information seeking behaviour of graduate students, in a way that it leads to the noteworthy achievement of the graduates' research activities. In the South African context, the South African Department of Education (2007: 29) highlighted that graduate students have to "demonstrate high-level research capability and make a significant and original academic contribution at the frontiers of a discipline or field". On the other hand, McPhee and Sloan (2010: 48) and Valentine (2001: 107) maintained that graduate students sometimes search by trial and error. In terms of using online resources for instance, Hughes (2005: 171) indicated that "while some considered the types and amount of information required, most seemed to rely more on trial and error than systematic planning". DaCosta (2001: 40) describes current students as the 'Google generation' or 'the trial and error generation'. Moreover, Hadebe and Hoskins (2010: 60) and Soyizwapi (2005: 66) noted that a majority of postgraduate students "made use of search engines which were used by trial and error or by way of peer education". Hughes (2005: 171) mentioned that "in most cases they picked one or two terms from the topic and entered them straight into the default search field of whichever online tool they were using". Armstrong et al. (2001: 241) argued that students need to develop search strategies and information skills. However, Hughes (2005: 173) mentioned that "in an educational context that promotes independent learning and high use of electronic resources these limitations represent significant barriers to achieving equitable academic outcomes".

Zawawi and Majid (2001: 25-26) argued that information seeking behaviour encompasses “the ways individuals articulate, seek, evaluate, select and finally use the required information”. Sandberg (2000: 9-10) noted that information competence relating to systematic searching is usually an important aspect. Dunn (2002: 26) focused on the need for information competence of university students. Travis and Farmer (2007: 90) believed that information competence can boost the learning capacity of an individual. Jackson (2005: 197) further suggests that international students can produce a good academic performance based on participating timely in “library information competence and orientation programme”. Gundara (2000: 90) discussed that a well-designed orientation programme assists students to interact with colleagues and to meet with academics and support staff. Francis (2005: 68) noted that “researchers and practitioners in the field of LIS have long held an interest in the information-seeking behaviour of different client groups”. Library orientation leads to effective and efficient use of library resources (Portmann and Roush 2004: 462). Furthermore, Trew (2011: 188) points out that academic library orientation offers important useful learning support to international students and it assists in improving their use of library resources.

Secker (2004: 54) notes that librarians must work hand in hand with academic staff and instructional designers with the aim of equipping students with necessary thinking skills and learning skills. Brown (2000: 343) suggests that library instruction can bridge the existing gap between the proper use of available resources and the satisfaction of international students’ needs. For instance, Liao, Finn, and Lu (2007: 23) indicate that “the library online catalogue plays a more important role in international students’ information seeking”. McPhee and Sloan (2010: 58) recommend that there should be “mandatory library instruction for first year graduate students”. Rader (1994: 79) reviewed a diverse range of publications on user instruction in different types of libraries. It is important to highlight that “librarians need to alter the way they plan and deliver information literacy instruction” (Orr, Appleton, and Wallin 2001: 457). In this regard, Hughes (2005: 175) also argued that “the online experience of international students could be enhanced through information literacy strategies and online resource design”. Hadebe and Hoskins (2010: 48-49) witnessed that “since databases are an important resource for both learning and research at the tertiary education level, it is important that students know which resources are available and how to use them”. Hence, Markless

(2009: 28) underlines “students need IL as an enabler of their discipline-based learning and research”.

Page and Kesselman (1994: 157) noted the necessity to update traditional library instruction towards the modern network training. In the middle 1980s, Goudy and Moushey (1984) also investigated the relationship that occurs between library instruction and international students as a particular group of library’s users. The study aimed to determine the proficiency of international students’ library use, whether library instruction would be helpful to these international students, and how instruction could be accomplished. The outcomes of the study revealed that librarians observed international students as having additional challenges. In this context, Newhouse (2002: 36) suggests that academic librarians need to carefully identify the situations in which computers are appropriate to support the designed programme of instruction, hence considering short and long term academic goals. MacWhinnie (2003: 241) further mentioned that “academic libraries have experimented with new ways to combine information resources, technology, and research assistance”. Koehler and Swanson (1988: 149) state that international students generally suffer from an overall lack of library skills. Brown (2000: 341-344) also discussed in detail the following critical issues that mostly hinder the information seeking of international students:

- Lack of adequate vocabulary;
- Poor English proficiency skills;
- Cultural differences; and
- Lack of proper library skills.

Al-Suqri (2007: 256) noted that information seeking behaviour and its outcomes tend to differ from one group to another group of information users in the social sciences due to “the impact of language and cultural factors, educational traditions, and the relative availability of information resources and technology”. Moore (2002: 303) further acknowledged that it may be reasonable “to define groups of users that share common information needs”. Hence it makes sense to expect that groups of international students often share various common information needs at their host universities. For example, the application or renewal of a study permit from the Home Affairs Department becomes an inevitable act for most international students.

Qureshi, Zafar, and Khan (2008: 43) argued that the following factors have either positively or negatively impacted on information needs and seeking behaviour of students and these include awareness of resources, educational and cultural background, surrounding environment, ability to use tools, student participation, self-evaluation and intuition. These influential factors can also actively affect the information seeking behaviour of international postgraduate students. Stokes and Lewin (2004: 51) also mentioned the “environmental constraints relate to the resources available including library staff assisting with enquires, colleagues offering advice and scholarly activities such as conference attendance”. Reddy and Jansen (2008: 257) state that the aim of identifying all possible resources is to allow people (students) to find information effectively and efficiently. In other words, the identification of available information resources may positively assist international students to effectively and accurately find the relevant information during their information seeking behaviour process.

Head and Eisenberg (2010: 35) noted that “students use a strategy driven by efficiency and predictability in order to manage and control a staggering amount of information that is available to them in college settings”. Weller (2008: 35) also underlined the lack of accuracy checks in online information before publication. Gaiser and Schreiner (2009: 7) further asserted that there is no specific person or institution assigned to control online or Internet resources. Similarly, Chen et al. (2009: 459) argued that “the quality and credibility of Internet resources has been a concern in scholarly communication”. In many respects, Cooke (2001: 71) notes that “the ease of assessing accuracy is affected by both the nature of the information and the expertise of the evaluator”. Taking into account this view, Brand-Gruwel, Wopereis, and Walraven (2009: 1209) concluded that students need to be equipped with fundamental skills for selecting information and the ability to judge the usefulness and the quality of information. Chen et al. (2009: 461) pointed out that students frequently come across issues related to defining authenticity and quality of online information resources. Fourie (2010: 39) states that “information seeking has often been described as an ongoing and iterative process. Satisfying one information need may lead to another”. Wittenberg (2007: 2) further mentioned that students frequently show a crucial need for guidance and assistance while they are selecting and evaluating information from the Internet (online) for successful research and learning purposes.

Wang (2008: 8) reported that when international students could not find the necessary information resources in the library, a large number of them tended to turn back to a reference librarian or would search Google. Willis (2004: 15) indicated that there are abundant search engines. Grix and Watkins (2010: 89) noted that “the best known search engine is Google”. Furthermore, Hadebe and Hoskins (2010: 60) found that Google was the most used search engine by master’s students, whilst the other main search engine used included Yahoo. Kumar (2011: 37) indicated that the Internet search basically involves the two major search engines of ‘Google and Yahoo’. Interestingly, Kheswa and Hoskins (2012: 136) found that third year students at the University of KwaZulu-Natal predominantly used Google and Yahoo as major search engines for their academic works. Scheeren (2010: 164) and Grix and Watkins (2010: 90) highlighted that Google Scholar allows the researcher including lecturers and students to carry out a wide range of searches for academic scholarly literature.

Franklin (2013: 111) finds Google Scholar a powerful search engine database especially for academic purposes. McPhee and Sloan (2010: 10) have indicated that “Google scholar is used almost equally by master’s and PhD students”. Gerdy (2001: 122) recommends that library staff must educate users especially students on the importance of evaluating the quality of information resources gathered from online databases. Therefore, Lavoie, Rosman, and Sharma (2011: 143) conclude that at the end of the day, graduate students are expected to have the ability to critically evaluate the quality of information from a variety of online resources.

Holliday and Li (2004: 358) and Franklin (2013: 111) noted that many students tend to select a limited number of databases with which they are familiar, and consequently Punchihewa and Jayasuriya (2008: 129) mentioned that students do not use all information resources available to them sufficiently. Crawford and Daye (2000: 255) mentioned that students primarily tended to settle for one standard database. Jagarnath (2004: 100) then revealed that end-users were not sufficiently confident with searching a totally new database because they had not had a prior training opportunity. Head and Eisenberg (2010: 36) revealed that “course readings, search engines, including Google, and scholarly research databases were used most often in their [student] studies”. Kim and Sin (2007: 662) witnessed that students still experience troubles in using Boolean searching and controlled vocabularies and it negatively affects their searching



abilities to reach or efficiently retrieve useful information resources. Gilbert (2008: 73) mentioned that Boolean logic involve three types of basic searching such as ‘AND, OR, and NOT’.

It is important to consider that information specialists particularly librarians have mistakenly observed that graduate students often consider themselves to have sufficient information learning skills (McPhee and Sloan 2010: 48). According to Liu and Winn (2009), international students tend to deal with their own problems instead of asking for help. Moeckel and Presnell (1995: 309) noted that the self-independent behaviour may create difficulties during the information seeking process. Wang (2008: 6) argued that the lack of consultation for some students may lead to limited searching ability. Fourie (2010: 43) argues that “people will have different needs for information in the same context, and different ways in dealing with information”. Head and Eisenberg (2010: 36) observed “when it came to finding information for use in their personal lives, students most frequently turned to search engines firstly, such as Google, and to a lesser extent to Wikipedia and friends”. Morgan (1995: 25) also asserts that users have multiple information needs and they then have different expectations. Lavoie, Rosman, and Sharma (2011: 143) similarly note it is necessary for a collaborative effort between different partners in order to meet the information needs of a divergent group of people including students.

Jackson (2005: 205) argues that “librarians can provide a solid foundation for international student success by developing and increasing library efforts and programs for this target group”. Kuhlthau (2004: 1) notes that “the difficulty of using information is of increasing concern to information providers”. Buckland (1991: 113) typically discusses that “physically receiving the text of a piece of information does not guarantee that the recipient becomes informed”. Crowley and Spencer (2011: 218) also pointed out that “digital content is complex and expensive”. Barnard (2000: iii) notes that the truth is that students may not merely benefit from the subscription to expensive databases unless there are also proper training programmes designed and offered to each group of users.

Stalker 1999: 79) argued that university libraries should always understand user behaviour. For instance, Gosling and Nix (2011: 99) noted that from past experience, academic staff claimed that many students were not confident enough in ICT use. Similarly, Crawford, de Vincente, and Clink (2004: 108) indicated that some students did not have enough skills to browse library databases successfully. In the 1990s, Allen (1993: 327) found that international students were not yet fully familiar with computer database searching and interlibrary loans services. McPhee and Sloan (2010: 10) indicated that graduate students frequently begin a search with databases that were familiar to them.

Wong (2004: 165) found that Asian international students enrolled in Western tertiary institutions still have a preference for “spoon-feeding teacher-centred styles of teaching”. Wayman (1984: 339) found that many international students were unfamiliar with the notion of independent library research. Therefore, Bruce (1995: 158) suggests that students need academic support when improving their independent searching skills. Atton (1994: 310) indicates that critical thinking exercises can boost academic performance of students. Farabaugh (2007: 45-46) and Mezick (2007: 562) argued that many training sessions may increase searching skills for students and support their academic performance. Weiler (2004: 47) also highlighted that “the issue of critical thinking cannot be separated from how students view their information universe”. Mancall, Aaron, and Walker (1986: 22) considered that having the ability to think critically is always important for effective learning. Dennis (2001: 122) then recognised the role academic librarians play in “expanding information literacy to teach critical thinking”. Poll and Boekhorst (2007: 8) conclude that “the difficulty today is to find and select relevant information”.

### **3.6 Information problems experienced by international students**

Pedersen (1991:24) argued that “international students are likely to experience more problems than students in general and have access to fewer resources to help them”. Typically, Head and Eisenberg (2010: 36) observed that “the biggest difficulties were in determining the nature and scope of a research assignment and what it required of them”. According to Curry and Copeman (2005), there are key problems experienced by international students and these

include but are not limited to English language proficiency (Natowitz 1995: 5), conceptual awareness of library services (Jiao, Onwuegbuzie, and Lichtenstein 1996: 159), and cross-cultural diversity (Dale, Holland, and Matthews 2006: 191) . In this context, academic librarians must understand and discover the challenges that might negatively influence international students while they are seeking information resources in the library. Hughes (2005: 169) argued that they experience many challenges based on the new cultural environment, educational, linguistic and social backgrounds commonly differ from the modern academic systems and life styles applied at host universities. Baron and Strout-Dapaz (2001: 314) revealed that “both librarians and international student support staff agreed that the major challenges international students face are language/communication problems, adjusting to a new educational/library system, and general culture adjustments”.

Scholars have comprehensively discussed some other related issues which can complicate the information seeking behaviour of international students such as homesickness (Tochkov, Levine, and Sanaka 2010: 685-6); discrimination (Poyrazli and Lopez 2007: 275); feel isolated during group learning (Treloar et al. 2000: 710); cultural stress (Thomson, Rosenthal and Russell 2006: 2); and lack of personal network (Al-Sharideh and Goe 1998: 722). Furthermore, Ward, Bochner, and Furnham (2008: 146) also discussed adjustment issues relating to international students “from the perspective of how to reduce their stress and enhance the positive aspects of their sojourn experience”. In addition, Brown (2001: 337) discussed issues related to language, technology changes and cultural issues with emphasis on international students. De Araujo (2011: 2) notes that international students often suffer from adjustment concerns and these primarily include “culture differences, language constraints, and social behaviours”. Therefore, the discussion below helps to understand the critical information problems encountered by international students when they are acquiring information to satisfy their information needs.

### **3.6.1 English language proficiency challenges**

Altbach (2004: 5) noted that “English now dominates as the language of research and scholarship, at one time German held sway, as did Latin in an earlier era”. Jung and Norton

(2002: 245) noted that English plays a vital role for the purpose of international communication skills. Fang and Warschauer (2004: 317) mentioned English language teaching in China's higher education systems as an important foreign language. Typically, Mossop (2013: 3) describes language as "a powerful medium, and its meaning is in constant flux". Von Glasersfeld (1989: 163) and Weideman (2003: vi) considered language proficiency as a useful tool for a student to succeed academically. Moon (2004: 11-12) pointed out that basically language in the academic environment becomes a critical issue for students. Webb (2004: 235) further underlined that "inadequate English language proficiency" in South Africa needs more attention. Wang and Frank (2002: 212) and Amsberry (2008: 356) argued that not only academic librarians need to limit the use of library jargon terms, but also academics must speak clearly by using normal sentence structure when talking to students. Watkins (1996: 77) further advocates taking into consideration the level of English of the students before librarians or academics communicate with them.

McGroarty (2002: 20) further highlighted that many people fundamentally consider the existence of "the value dimensions affecting language education". Whorf (2011: 19) argued that the proper use of language allows a person to adjust to the real world and to openly communicate with others. Hardage and Elith (1995: vii) and Sears (1998: 49) noted that English differs from other subjects in the sense that English not only helps students to pursue other courses but it is also used for everyday life communication. McSwiney (1995: 30) notes that English is often a barrier of communication for international students either in the lecture room or in library. Therefore, Farabaugh (2007: 54) state that students need an opportunity to distinguish that "language meaning, like learning, is influenced not only by the words we use, but the forms we use to contain them". Educators basically consider the importance of adequate English language proficiency for the academic performance of international students either at undergraduate level (Johnson 1988: 164) or at postgraduate level (Light, Xu, and Mossop 1987: 251). Marama (1998: 94), Kamhi-Stein and Stein (1998: 1) and Wang and Frank (2002: 211) indicated that library-related terminology is particularly a third language to many international students. Andrade (2006: 131) perceives that international students face two main adjustment challenges and these basically include "English proficiency and culture". Han (2012: 3) also

highlighted issues related to different languages and cultural backgrounds of international students for academic studies.

Amsberry (2008: 354) notes that “language is a primary barrier for international students in library instruction classes”. Al-Saleh (2004: 4) also appraised that “Saudi graduate students face barriers that are process-based, language-based, and culture-based”. Brown (2001: 337) indicates that linguistic barriers include selection for vocabulary, sentence structure, and various sociolinguistic considerations”. In this regard, Fairclough (1989: 23) noted that people always use language in their social settings. Bilal’s (1989) survey examined the relationship between the international students’ acquisition of library research skills and their English language proficiency. The findings revealed that not only was lack of command of the English language the main barrier, but also lack of self-sufficiency and absence of the conceptual awareness of library research were key challenges in comprehension. As a matter of fact Amsberry (2008: 356) suggests that when library instructors are working with international students, they need:

- To know the language level of students, lecturers can brief them about the linguistic proficiency of students before the library session.
- To be aware that input modifications are linguistic, not intellectual. Using some worldwide examples may create motivational factors of communication rather than merely sticking to local examples.
- To plan for extra time during sessions for questions and explanations about vocabulary and cultural references that the students may not understand.

On the other hand, Light, Xu, and Mossop (1987: 252) further provided four major components of the communication process and these included:

- Grammatical competence which entails knowledge of vocabulary, pronunciation, spelling, and word and sentence formulation.
- Sociolinguistic competence which encompasses rules of appropriateness governing use of forms and meanings in different contexts.
- Discourse competence which includes necessary knowledge needed to combine forms and meanings to achieve unified spoken or written discourse.

- Strategic competence comprises knowledge of verbal and nonverbal communication strategies.

Catalano (2013: 244) highlights that international graduate students basically suffer from their limited language skills in the course of their information seeking process. Similarly Kwon (2009: 1032) argued that international students were sometimes intimidated in English speaking classes because they were not sufficiently confident with their English proficiency. In the LIS literature for instance, Boers (1994) and Leistman (2000) recommended using simplified vocabulary with international students. Altbach (2004: 8) asserts that “international scholarly and research journals are largely published in English”. Yang (2001: 155) noted that “a computer-mediated learning experience in language studies could not be achieved by itself simply by the introduction of the learner to Web technology”. It is important to consider that for the purpose of dealing with English language limitations, Hughes (2005: 171) appreciated the fact that some international students have already adopted certain strategies and these include “use of their own language websites or online language tools such as Google’s language preferences”.

In the same line of thought, Li and Campbell (2008: 203) identify that international students take into consideration the role of classroom group discussions from which they tend to benefit through interacting with “students from other cultures and backgrounds, improve English language skills, enhance their culture understandings, and provide them with opportunity to make friends”. Lippi-Green (1997: 64) and Tollefson (2002: 6) noted that “the language policymaking process is grounded in culture”. However, Treloar et al. (2000: 711) and Sarkodie-Mensah (1998: 219) indicated that a lower level of English language proficiency often reduces the participation level of international students during group discussion. Zhang and Brunton (2007: 137) and Trice (2004: 682-3) argued that in terms of social contact international students engaging with host students can contribute to the improvement of their English language proficiency.

### **3.6.2 Information literacy and computer skills**

Kuhlthau (2008: 71) describes information literacy as “the ability to locate, evaluate and use information wisely”. Eisenberg, Lowe, and Spitzer (2004: 11) indicate that the information literacy concept was first introduced by Zurkowski in 1974. Furthermore, Zurkowski (1974: 6) asserts that initially the concept of information literacy has evolved from “information technology, information access and solution-oriented problem solving work”. Horton (2007: 13) indicates that information literacy exists in the “convergence of thinking from many developments, disciplines, sectors and areas of research”. Indeed, information literacy was generally contextualised within higher education and applicable from the LIS perspective. Sibanda (2004: 387) noted that information literacy skills are primarily required for every student in order to find and successfully evaluate information.

Travis and Farmer (2007: 94) acknowledged that “technology gives opportunity to expand the role of librarians as a partner in the education process”. Czerniewicz, Ravjee and Mlitwa (2006: 3) point out three dominant kinds of technology change in relation to higher learning institutions in South Africa since 2000, and these include change as improvement, change as innovation, and change as transformation. Bundy (2004: 11) perceives information literacy in the form of an “intellectual framework for lifelong learning”. Kuhlthau (1987: 22) then notes that it is important for people to become information literate especially in a current information age. Eisenberg, Lowe, and Spitzer (2004: 130) indicated that developing students who are lifelong learners is essential to the mission of a university. Colorado Education Media Association (1994: 1) and Markless (2009: 26) noted that information literate students are generally flexible and they can easily adapt to academic changes associated with the use of new technology.

Markless and Streatfield (2007: 29) have provided a useful diagram which has information and critical literacies as a central element associated with three other interconnected components such as connecting with information, interacting with information, and making use of information. Although Eisenberg, Lowe, and Spitzer (2004: 246) provide a summary table of ‘information literacy guidelines’, Saunders (2009: 3) notes that there is still a gap in terms of

specifically determining the core standards that have to be covered within IL instruction (training process). Taking into account this designing gap, Brand-Gruwel, Wopereis, and Walraven (2009: 1209) provided three essential skills required for students in order to successfully solve information problems and these are reading, judging, and computer skills. Naido and Raju (2012: 34) recommend “computer literacy training should precede IL training”. According to Johnson and Eisenberg (1996: 12), there is a link between computer literacy and information literacy. Eisenberg, Lowe, and Spitzer (2004: 133) outlined some of the key forms of information literacy instruction that higher learning institutions implemented and these forms involved stand-alone courses or classes, online tutorials, workbooks, course-related instruction, and course-integrated instruction.

Savolainen (2002: 211) believed that ICT knowledge has a positive impact on everyone’s life without exception. For instance, Benedict (2010: 165) recently revealed that ICTs have become the most useful tool which many African governments need to support in order to quickly achieve their millennium goals. Gosling and Nix (2011: 99) argued that “being able to develop IL skills depends on students having a certain base level of ICT knowledge and being fairly confident using the Internet”. This means that ICTs have a critical influence on literacy education (Andrews 2005: 212). For instance, Minishi-Majanja (2009: 155) noted that quality of academic staff and availability of ICT resources are the two major resources in order to ensure good quality of LIS teaching and learning programmes especially on the African continent. De Jager and Nassimbeni (1998: 131) and Brackman (2002: 30) noted that many students from the African continent experience a lack of access to information technology facilities and poor use of academic resources. For instance, Okello-Obura (2011) investigated the challenges postgraduate students faced in accessing electronic resources at Makerere University (Uganda). Okello-Obura (2011: 41) then outlined the following problems identified by postgraduate education students and LIS students as:

- Slow Internet connectivity;
- Inadequately networked computers;
- Lack of access to low-cost printers in the library;
- Inability to use advanced search strategies on most databases; and
- Lack of awareness of most of the e-resources.



In the South African teaching and learning context, Arko-Cobbah (2004: 267) underlined that ICTs are continuously core constituents of the learning process. The improvement of technology skills allows students to actively seek and evaluate useful academic resources (self-searching) rather than always waiting for assistance. Jaffer, Ng'ambi, and Czerniewicz (2007: 131) argued that the role of educational technology consists of providing additional strategies that can be used to deal with the educational and environmental challenges faced by graduate students and academic staff within the higher education community. However, De Jager and Nassimbeni (2005: 31) perceived that “academic librarians across the world acknowledge that one of their most serious challenges is to demonstrate to teaching staff the value of information literacy in the curriculum”. In this context, DaCosta (2011: 36) pointed out that “information literacy skills are core to lifelong learning and need to be developed to equip students to manage information in whatever format it is presented”. In terms of the benefit of information technology, Eisenberg, Lowe, and Spitzer (2004: 167) maintained that “information technology integrated in the curriculum can enhance the development of students’ information literacy skills”. Bruce, Edwards, and Lupton (2007: 39-42) developed an IL model which contained six frames and these include information, curriculum, learning, teaching, content, and assessment. Therefore, Buchanan, Luck, and Jones (2002: 149) noted that “if librarians and faculty collaborate to include IL concepts with course content, it is more likely that students will achieve IL learning outcomes”. Lampert (2008: 84) indicates that today group instruction is the most applied library instruction format. Klavano and Kulleseid (1995: 359) also supported course-integrated library instruction. Prytherch (2000: 756) described user education as the training session that prepares the library user to successfully use available library services. In this regard, Mgobozi and Ocholla (2002: 92) highlighted that the lack of user education often leads to the poor use of electronic journals at the University of Zululand and University of Natal (currently University of KwaZulu-Natal).

Kubey (2001: 366) cautioned that heavier usage of the Internet for recreational purposes might negatively affect students’ academic performance, their social interaction and participation in cultural activities. Hughes (2005: 172) supportively reported that most of the common difficulties encountered in using online resources may hinder information seeking behaviour of either international students or even local students. Nkosi, Leach, and Hoskins (2012: 79)

recommended lecturers and supervisors make a huge effort in encouraging their students to use accurate and reliable library resources. Hughes (2005: 172) outlined some of the major challenges associated with the use of online resources and these included:

- Problems related to limited access to computers and Internet facilities;
- Computer hardware failures; and
- Information overload from online resources.

Poll and Boekhorst (2007: 7) identified that information overload usually represents a critical challenge in research. Benson (1995: 57) also notes information overload as a common problem faced by graduate students. In the same line of thinking, Dadzie (2005: 292) provides the main reasons associated with low usage of online databases at Asehi University College and these include “a lack of awareness of electronic resources, lack of time to access and too many passwords to remember”. Luambano and Nawe (2004: 16) further add that many students at the University of Dar es Salaam did not use the Internet effectively due to the following:

- Inadequate provision of computers with Internet facilities;
- Lack of skills in Internet use; and
- Existing computers with very slow internet connectivity.

On the other hand, Kheswa and Hoskins (2012: 136-137) acknowledged issues related to limited literacy skills of students and limited number of computers with Internet connections available in South African institutions. De Jager, Nassimbeni, and Underwood (2008: 142) had maintained that in South African academic libraries, IL still needs university support in order to become more beneficial to everyone. Porter (2005: 335) argued that information literacy skills are very important for university students in order to understand a topic and to efficiently conduct research. Holliday and Li (2004: 361) noted that “many experience the feelings of confusion and anxiety as they begin the research process and try to select a topic”.

Mbambo (2006: 184) argued academic librarians have to design and consistently extend instructional services to international students in order to boost their information retrieval skills. Kim and Sin (2007: 663) highlighted that information literacy instruction must include activities that make students aware of possible available information resources. Gardiner,

McMeneny, and Chowdhury (2006: 356-357) briefly outlined key challenges influencing the accessibility and usability of electronic resources and these included:

- Poor readability of electronic resources;
- Accessibility and retrieval of information from online resources;
- Information overload as there is too much information online than what should be necessary, it then becomes difficult for user to identify the relevant information;
- Reliability and authenticity of Web information; and
- Time required for accessing and evaluating useful information from thousands of available online resources.

De Jager and Nassimbeni (2002: 168) outlined seven major information literacy skills required by all students, which have been developed by the Society of College, National, and University Libraries (SCONUL) (1990) in the UK. Interestingly for the purpose of this study, the American Library Association (2000: 2-3) also shortened the skills into five main characteristics of an information literate person. Bruce (1995: 158) reveals that an information literate student is initially equipped with “independent self-directed learning and the use of information technology”. Baron and Strout-Dapaz (2001: 319) further applied these opinions related to information literacy skills with special emphasis on international students’ needs. These include:

- To determine the nature and the extent of the information needed: international students often need assistance determining the scope and the nature of their research topic.
- To access information needed effectively and efficiently: international students need to be well informed of the different resources which could help them to effectively conduct their research, particularly reference materials such as language dictionaries and encyclopaedias if the research is in a new language.
- To evaluate information and its sources critically and to incorporate selected information into international student’s knowledge base and value system. In this regard, evaluation and research assistance should take into consideration language issues and culture differences faced by international students at host universities.

- To use information effectively with the aim of accomplishing a specific goal/purpose. Academics need to bear in mind that international students need special training and instruction in order to equip them with the necessary skills to locate useful sources for academic tasks. In other words, academics need to incorporate selected material resources into student module guides.
- To understand the economic, legal, and social issues surrounding the use of information. In this context, international students need sufficient information about ethical issues such as copyright and plagiarism (Eisenstein 1983: 15).

### **3.6.3 Plagiarism challenges**

Stebbins (2006: 158) describes plagiarism as “copying the ideas or language of another writer without formally acknowledging that writer”. Grix and Watkins (2010: 115) and Franklin (2013: 114) describe plagiarism as copy/cut-and paste without acknowledging the original source. Park (2003: 471) found that the use of new technology in higher education has increased plagiarism. For example, Howard (2007: 4) indicated that the active use of the Internet often promotes plagiarism. Blaxter, Huges, and Tight (2006: 12) and Groom (2003: 85) observed that the plagiarism problem is based on poor referencing styles. Willis (2004: 21) warns researchers in general to always quote the author of the original work. Bailey (2011: 30) recently indicated that in particular “it is important for all students, including international ones, to understand the meaning of plagiarism and learn how to prevent it in their work”. Park (2003: 472) provided a simple definition of the plagiarism concept as “the theft or words or ideas, beyond what would normally be regarded as general knowledge”. Catts and Lau (2008: 7) argued that information literacy skills may enable students “to make effective and ethical use of information”.

Grix and Watkins (2010: 106) highlighted that there are different referencing or citing styles from one academic institution to another (home to host country) and one discipline to another. Jankowicz (2000: 162) and Burton (2000: 149) also acknowledged the availability of multiple referencing or citing styles and they mentioned two main citation systems such as Harvard

citation system or author-date referencing convention and the Vancouver citation system or numbered referencing convention. The present study has used the Harvard referencing style as it is largely suitable for social science research projects (Burton 2000: 149). Moed (2010: 26) mentioned that the analytical reading and proper citation of academic works are important elements. Lipson (2011: 5) recommends graduate students to consult supervisors and academic librarians about the citation format that should be applied in each specific academic discipline. Pecorari (2002: 60) and Gray (2002: 102) revealed that many students plagiarise without realising it (unintentional plagiarism). Pyvis (2002: 33-34) and Blum (2009: 164) discussed that university plagiarism policies and procedures have to be clearly defined and well-communicated to the entire university community in order to deal frankly with plagiarism related issues. Sutherland-Smith (2008: 2) noted that plagiarism involves “breaching academic protocols”. Bradley (2011: 1) and Park (2004: 292) consecutively referred to plagiarism as major academic misconduct or malpractice. Angelil-Carter (2000: 68) looks at plagiarism as ‘the scourge of academic life’.

DaCosta (2011: 39) pointed out that librarians and educators need to carefully consider “the diverse learning styles of students”. Huxley and Jacobs (2004: 224) and Stebbins (2006: 158-159) noted that this effort can help to improve information skills of students, particularly through dealing with plagiarism issues. Pennycook (1996: 201) noted some of the complexities of text, ownership, memorisation, and plagiarism. For example, Watkins and Biggs (2001: 6) and Angelil-Carter (2000: 44) argued that many students are continuously memorising without understanding.

Pecorari (2001: 18) noted that “universities that respond to plagiarism with an attempt to educate students are few; punishment is the norm”. Park (2003: 484) suggested that punishments for plagiarism should be made in a transparent and a consistent manner. Whitley and Keith-Spiegler (2002: 56) and Bradley (2011: 6) argued academic institutions have common assumptions that students are well trained about plagiarism at the undergraduate degree. Angelil-Carter (2000: 16) notes that many academics believe that plagiarism often happens intentionally. Lipson (2004: 33) noted that “the penalties are severe because academic honesty is central to the university”. However, the misunderstanding about plagiarism has a

negative impact on academic performance of many international students, due to the fact that a majority of them have attained previous degrees from home universities which may not necessarily have dealt with plagiarism and other related academic integrity matters in the same manner as the host universities.

Bertram-Gallant (2008: 5-6) indicated that academic institutions respond to plagiarism through rule compliance and integrity. For example, Lipson (2011: 3) and Blum (2009: 164) pointed out that good citation and quotation of sources are used as a useful way to ensure academic integrity as well as with the aim of preventing plagiarism. Bailey (2011: 33) suggests that students, including international students need to adopt paraphrasing and summarising strategies. Blum (2009: 2), Grix and Watkins (2010: 118), and Franklin (2013: 115) argued that many universities dominantly use the online plagiarism detection tool known as 'Turnitin.com' to detect plagiarism. Park (2004: 300) acknowledged that this digital detection was first developed in 1998 and it has the ability to detect plagiarism quickly and consistently. However, the system does have its disadvantages, as the similarity counts are not always an indication of plagiarism.

### **3.6.4 Socio-cultural challenges**

Jarvis (2006: 55) notes that "culture is a social phenomenon". Williams and Johnson (2011: 42) maintain that in terms of cross-cultural relations, it is important to note that "personality characteristics, intercultural attitudes, and life experiences may be beneficial to consider". In terms of proper use of available systems, Williamson (2005: 230) and Bradley (2000: 425) highlight that it is important to understand the socio-cultural features of users. Rubin and Martin (1998: 287) argued that "depending on the relationship, people differ in their motives for communicating with others". According to Yeh and Inose (2003), international students tend to form social connections which facilitate adjustment to the new academic environment. Van Oudenhoven and Van der Zee (2002: 681) suggest that international students need to be flexible in order to easily adjust to new cultural environments. Williams and Johnson (2011: 47) further recommend that specific initiatives have to be systematically implemented by host universities with the major objective of encouraging and supporting events which promote

interaction between host students and international students. Ujitani (2006: 6) also notes that it is important to support social interaction among local and international students. For example, Lord and Dawson (2002: 3) suggest the creation of multicultural seminar groups at host universities.

Amsberry (2008: 356) perceived that librarians and academics need to consider all possible challenges that may hinder the successful dissemination of information to international students who come from different cultural backgrounds. Blum (2009: 173) noted that cultural differences can mainly influence student's judgments and choices. Webb and Powis (2004: 30) maintained that students with diverse cultural backgrounds have different learning styles and are motivated in different ways. Furthermore, Mu (2007: 573) states that "cultural and communication differences make international students uncertain about the subject resources and services available in a library". Mortenson (2006: 130) noted that "cultural differences can produce two specific emotional frames for failure: goal-based emotions that reflect a failure in terms of personal goals, and face-based emotions that reflect a failure toward other people". In this context, Jackson (2005: 206) recommends that "staff training strengthens intercultural communication by increasing awareness of body language, eye contact, personal space, cultural customs of other countries and teaching methods".

Ramburuth and McCormick (2001: 333) indicated that "no statistically significant differences were found between Asian international students and Australian students in their overall approaches to learning". Nevertheless, Bollinger (2003: 433) asserts that "encountering differences rather than one's mirror image is an essential part of a good education". Kwon (2009: 1030) noted that "instructors in graduate classes were more likely to encourage international students to become involved in discussion than in undergraduate classes". Myers, Martin and Mottet (2002: 122) debate "students who wish to participate are motivated to demonstrate that they understand the course material". For instance, Ramburuth and McCormick (2001: 333) found that "Asian international students demonstrated significantly higher use of deep motivation, surface strategies, and achieving strategies. Whilst Australian students demonstrated higher use of deep strategies and surface motivation". Leila and Shanton (2012: 1) noted that "many of the issues continue to present a challenge even today as

international students try to navigate the variety of resources in an unfamiliar environment and culture”.

Baron and Strout-Dapaz (2001: 314) indicated that “it is also true that previous experiences, communication and learning styles contribute to the challenges of serving international students”. Wallace and Van Fleet (2012: 8) noted that “every individual relies on personal experience as an approach to learning”. Williams and Johnson (2011: 47) observed that initiatives related to the increase of cultural competence for international students basically comprise “experiential learning through multicultural exposure experiences”. Hall (2000: 209) suggested that the multiculturalism concept has to be taken into consideration. Wong (2004: 165) added that most Asian international students in the Western classroom culture often prefer a student-centred style of learning.

Rees and Porter (1998: 211) also noted that international students from developing countries, particularly the African continent, have to develop the culture of participatory and interactive relationship within the academic environment. However, Volet (1999: 628) highlighted that in the modern academic environment, lecturers mostly assume that existing learning/teaching styles meet high standards and norms, and they then believe that any deviations from it may lead to failure or poor tertiary education outcomes. Hanassab and Tidwell (2002: 306) claimed that educators should be able to identify and understand the needs of international students enrolled at host universities. The common issues include having educators who are not equipped for language and cultural problems when dealing with international students. Consequently, Li, Baker, and Marshall (2002: 2) indicate that this assumption explains a crisis within current education practice and it justifies the following critical issues amongst others:

- Lecturers’ poor knowledge of the learning needs of international students;
- Lack of learning supports; and
- Social problems faced by international students.

In this context, international graduate students enrolled in South African universities may also experience the above difficulties due to the fact that most of their home universities, mainly in developing countries, are still applying a passive learning style rather than an “active learning



style predominantly adopted at their current universities in South Africa”. Nevertheless, Baron and Strout-Dapaz (2001: 314) expressed that “there is no doubt that international students enrich the learning process through sharing cultural norms and life experiences, differing communication styles, and distinct learning styles”. Czerniewicz, Ravjee and Mlitwa (2006: 7) suggested that the proper use of technology facilities can assist in reformatting the learning styles of graduate students.

Laurillard (2002: 11) observe that a student body represents diverse characteristics in terms of race, language, gender, and socio-economic context. Toyokawa and Toyokawa (2002: 364) highlighted that international students face multiple challenges including “culture shock, language difficulties, adjustment to customs and values, differences in education systems, isolation and loneliness, homesickness and a loss of established social networks”. Similarly, Gundara (2000: 90) pointed out that international students often feel lonely and expect to make friends within the university community. Kheswa and Hoskins (2012: 121) revealed that social networks such as ‘Twitter, Facebook, and MySpace’ are used by students for non-academic work (mainly social motives). In the general context, social networks may then assist students in positive manner, especially international students to communicate and interact with not only their colleagues around the campus but also with family members staying at a distance from the host countries. For instance, Dao, Lee, and Chang (2007: 287) pointed out that “Taiwanese international students who were at risk of depressive feelings were more likely to be those who had the perception of limited social support”. Woods et al. (2013: 524) argued that most of the international students face particular challenges associated with lack of access to social support since they are away from their family members.

### **3.6.5 Financial resources challenges**

Altbach (2004: 8) witnessed that “universities in countries without deep financial resources will find it virtually impossible to join the ranks of the top academic institutions”. According to Bradley (2000: 418), financial challenges are common issues for all students. Heagney (2008: 21) mentioned particularly students from low income backgrounds often suffer from financial challenges. Particularly, Leder and Forgasz (2004: 194) revealed that the information needs of international students are consistently based on the differences in their home backgrounds and financial circumstances. Charles and Stewart (1991: 173) identified financial problems as a key stress-inducing situation for international students. Kumar and Suresh (2000: 327-328) explained that international students function under unique pressures and the recognition of these kinds of pressures can assist information service providers to become aware of appropriate ways to meet the perceived needs of international students. Although it is still debatable, but in terms of responsibility, Dunne (2009: 227) underlined that international students are working under greater pressure than local students. These include pressures to succeed academically, financial pressures to pay high tuition fees and to meet the high cost of living in host countries, and family pressures to mention the most prominent. Therefore, Bradley (2000: 418) argued that international students often experience greater economic, social and academic pressures than local students.

Kwon (2009: 1030) explained that “the main fear that international students expressed was financial pressure”. To corroborate this view, Brux and Fry (2009: 521) surveyed interests, issues and constraints of multicultural students studying abroad and indicated finances as the critical challenge faced by international students. Breier and Mabizela (2008: 278) indicated that “students are dropping out of higher education at alarming rates often because they cannot afford to stay at university”. Butcher and McGrath (2004: 541) noted that international students experience financial challenges in terms of covering living costs in the host country and travelling costs. Treloar et al. (2000: 712) also revealed that many international students highlighted that their parents had to make ‘financial sacrifices’ in order to support them at university.

### **3.7 Information services delivery for international students**

Kakai, Ikoja-Odongo, and Kigongo-Bukenya (2004: 562) noted that “understanding the actual needs of information users and taking steps to satisfy them is the first step towards effective service provision”. Almost three decades ago, Wilson (1977: 1) also supported by Kuhlthau (2004: 2) provided that “any policy for library system development should be based on an understanding of individual information gathering behaviour”. Ford (1995: 159-160) further discussed the benefits from ‘user involvement and feedback’ for proper delivery of information services. The main idea was that the service provider tends to become subjective, whereas in most cases, the customer or user of the service is the best judge (Booth 1993: 7). Therefore, Amsberry (2008: 356-357) indicated that it could be a critical problem if a librarian or an instructor is guessing what international student wants rather than asking the students what they need. Webb, Gannon-Leary and Bent (2007: 126) concluded that “the best way to find out is to ask”. Stone (2010: 156) further added that it is useful to listen to users in terms of offering them an appropriate information services. Belcastro (1998: 6) noted that having a good understanding of user’s needs and expectations leads to effective delivery of a quality service.

Poll and Boekhorst (2007: 105) provide that “most libraries are trying to assess their users’ opinions on the services they supply”. De Jager and Nassimbeni (2002: 168) indicated that foremost, searching skills should include “familiarity with information resources, with the library and with various means of accessing resources in different media”. Thani and Hashim (2011: 137) found that graduate students frequently need information skills to enhance their research activities. Singer (2005: 2) also reveals that in many libraries, there is no coordinator of library services for international students. Kumar and Suresh (2000: 333) suggest that every academic library can assign a particular librarian to attend to the academic needs related specifically to international students with the objective of successfully meeting their information needs. Therefore, it is important to identify the skills needed by the international students as well as how the skills are acquired. Neerpath, Leach and Hoskins (2006: 61) state that academic librarians have a duty to understand the general interests of the university and also satisfy the particular needs of each user, including academic staff and students. Unfortunately, Tahir, Mahmood and Shafique (2008: 5) indicated that Arts and Humanities

academics reported “unavailability of required material was the most common problem in information-seeking”. Wilson (2004: 1) further acknowledged that “many libraries today are too financially pressed to do much more than the minimum helpful intervention in the information seeking process”. Montanelli (1999: 158) and Fairclough (2012: 211) mentioned that academic libraries obtain limited budgets from their institutions. This explains the insufficient funding for academic libraries from their parent universities (Budd 2005a: 160). Unfortunately, Montanelli (1999: 157) indicated that “users fail to understand the way in which budgetary choices directly affect service”.

Abdoulaye (2002: 193) pointed out that library services mainly used by international students at both undergraduate and postgraduate level included circulation, photocopying and reference services. Hoivik (2003: 2) provides that “reference work is not the most important library service, but it ranks near the top”. Hendricks (1991: 222) noted that reference services are not fully known by international students. Moreover, Jackson (2005: 203) indicates that some library services such as “interlibrary loan, librarian reference-by-appointment, and live online reference” were new to international students, whereas services and concepts such as “the reference desk and open stacks” were easily understood by international students. Therefore, the provision of information, for example, may focus largely on resources related to learning issues and research project needs. On the other hand, McPhee and Sloan (2010: 58) argued that “librarian support needs to be deliberate and planned in coordination with faculty”. It is evident that university advisors for instance, Faculty Office, library staff, International Student Office (ISO), and other supportive university departments need to be well equipped with a good understanding of the information problems related to the information seeking patterns of international students. Bradley (2000: 424) found that international African students are basically not familiar with counselling services available at their host universities. In this context, the study examined the information seeking behaviour of international postgraduate students in an effort to enhance the accurate and timely provision of information services to this specific group of international students.

### **3.8 Summary of the chapter**

This chapter covers the literature review of the study. The literature was systematically arranged based on the research objectives (section 1.4) and key research questions underpinning this study (section 1.5). The literature is very important for academic research and the literature basically provides an in-depth understanding of key related research terms which were briefly highlighted in Chapter One (section 1.10). These relevant terms included information needs, information seeking behaviour, information sources, information use or exchange, and information systems/services. Key studies relating to the information seeking behaviour of international students were reviewed. The literature particularly revealed the studies available on the academic needs of international students and highlighted the challenges or barriers they face in terms of satisfying their academic and personal information needs. There were some gaps in the literature reviewed including inadequate reviews emanating from empirical studies focussing on international students and the lack of an information behaviour model specifically promoting information services for international students at the host universities. Therefore, the study comprehensively organised the literature using the research objectives as the organising framework. The study also proposed an information behaviour model (Figure 7.1) for such students. The next chapter will discuss the research methodology adopted by the study to investigate the research problem.

## **CHAPTER FOUR: RESEARCH METHODOLOGY**

### **4.1 Introduction**

Chapter Four presents the research methodology and methods selected to investigate the information seeking behaviour of international postgraduate students. This chapter includes the research approaches, research paradigm and design of the study, the choice of methodological triangulation, population, sampling techniques, data collection methods and instruments used for data analysis. The research instruments adopted for data collection were that of a questionnaire, focus group discussion, and interview due to the nature of the problem under investigation. Validity and reliability of research methods were also considered and discussed. Quantitative data analysis was done using SPSS and qualitative data analysis via thematic content analysis. Ethical issues are discussed in detail.

### **4.2 Research methodologies**

Leedy and Omrod (2005:12) consider research methodology to be the general approach a researcher follows when carrying out a research project. Schensul (2012: 71) noted that research methodology is typically regarded as research design. Lapan, Quartaroli, and Riemer (2012: 1) noted that methodologies consist of complete designs and frameworks utilised for the study. Paltridge and Starfield (2007: 119) observed that methodology informs the choice of research methods. Blaikie (2010: 8) maintained that research methods are based on the procedures preferred for gathering data and analysis. Similarly, Marshall and Rossman (2006: 40) and Walliman (2011: 7) underlined that research methods are essentially techniques applied to undertake research studies. Lapan, Quartaroli, and Riemer (2012: 10) and Silverman (2013: 124) highlighted that research methods commonly mean data collection tools or techniques.

Kalof, Dan, and Dietz (2008: 34) and Kothari (2004: 5) noted that research methodologies primarily revolve around two major approaches, namely quantitative and qualitative. Onwuegbuzie and Leech (2005: 375) and Quinlan (2011: 308) initially indicated that graduate students need to understand and have the ability to use both qualitative and quantitative

methodologies for the purpose of their academic research projects. However, Bergman (2008: 19) underlined the lack of a clear distinction between quantitative and qualitative approaches. Some researchers such as Miles and Huberman (1984: 15); King, Keohane, and Verba (1994: 4); and Creswell and Plano-Clark (2007: 29) have simply distinguished a quantitative approach from a qualitative approach based on the use of numerical or statistical data. In this text, Patton (2005), Kalof, Dan, and Dietz (2008: 14-15) and Babbie (2011: 24) explained that quantitative research basically uses numbers whereas qualitative research does not primarily apply numerical data. Sandelowski, Voils, and Knafl (2009: 210) pointed out that a qualitative inquiry may also use some sort of numerical data “to facilitate pattern recognition or otherwise to extract meaning from qualitative data”.

Onwuegbuzie (2003: 394) expressed that numerous research debates have led to divisions among educational researchers. Creswell and Plano Clark (2011: 171) argued that the difference between qualitative and quantitative approaches influences the choice of method for data collection and analysis. Quantitative research measures a phenomenon using numbers in conjunction with statistical procedures to process data and summarise results (Locke, Silverman and Spirduso 2010). Hittleman and Simons (2001: 27) indicate that quantitative research represents variables which are numerically measured and they may be scientifically verified. On the other hand, Ryan and Bernard (2000: 777) acknowledged the value of revolving qualitative records with quantitative figures. Onwuegbuzie and Leech (2005: 379) and Maxwell (2010: 480) further acknowledged that this revolving process can lead to the complementarity of overall research data. Smith and Bowers-Brown (2010: 112) indeed argued that it is common to find researchers using both approaches. Both quantitative and qualitative approaches were applied for the purpose of the current study.

### **4.3 Distinction between quantitative and qualitative approaches**

Locke, Silverman and Spirduso (2010: 182) argued that quantitative and qualitative methodologies reflect different paradigms. Tashakkori and Creswell (2007: 4); Creswell and Plano Clark (2011: 8) and Babbie (2011: 276) discussed and concluded that when a researcher is deciding to use a combination of both quantitative and qualitative approaches within a single

survey research, the researcher should carefully consider their strengths and weaknesses for the purpose of the study. Kumar (2011: 103-104) discussed differences that exist between qualitative and quantitative approaches in case they are combined in a single study. As a result, the study considered the usability of both qualitative and quantitative approaches within a single study because their main features justify the purpose of using both approaches for the present study.

#### **4.3.1 Qualitative approach**

Denzin and Lincoln (2005: 3) argued that qualitative research enables researchers to understand the world surrounding them. Barbour (2008: 15) also noted that the qualitative approach provides more explanations than quantitative research. Particularly, Rubin (2008) and Silverman (2013: 11) acknowledged that qualitative research is appropriate for investigating human behaviour, which was a major objective of the present study. Kumar (2011: 104) explained that qualitative research tends to become more flexible during the research process and its primary focus is on understanding “value, beliefs and experience of people”. Merriam (2009: 21-22) initially outlined six general methods used while doing qualitative research and these include:

- Basic qualitative research seeks to understand how people make sense about the world surrounding them (Sanders 2010);
- Phenomenology focuses on the underlying structure of the phenomenon (Edmonds and Kennedy 2013: 136; Starks and Trinidad 2007: 1373-74; as well as Collingridge and Gantt 2008: 393);
- Grounded theory was first traced to Glaser and Strauss (1967) according to Charmaz (2010: 183). It seeks to form a functional theory about the phenomenon of interest (Eich 2008: 176 and Charmaz 2000: 509);
- Ethnography focuses on understanding human society and cultural groups (Creswell 2007: 218; McNeill and Chapman 2005: 89; and Werner 2004: 73), it comprehends social meanings (Brewer 2000: 6) and it comprises flexibility opinions (Delamont and Atkinson 2004: 667);



- Narrative analysis stands for “the oldest and the most natural form of sense making” (Jonassen and Hernandez-Serrano 2002: 66); it is often based on storytelling in a literary way (Edmonds and Kennedy 2013: 129; Pinnegar and Daynes 2007: 4, and Riessman 2002: 218) and every group of people have stories to tell (Atkinson 2007: 224 and Czarniawaska 2004: 649). This method is applied more in the qualitative social sciences (Chase 2010: 208 and Elliott 2005: 4); and
- Critical qualitative research seeks “to critique and change society” (Patton 2002: 131).

Plano Clark and Badiee (2011: 288) and Kumar (2011: 57) noted that qualitative inquiry often uses inductive reasoning. Patton (2002: 253) asserts that “the extent to which a qualitative approach is inductive or deductive varies along a continuum”. The purpose of using a qualitative approach was to contextualise and interpret results using induction to derive possible explanations based on observed phenomena (Lapan, Quartaroli, and Riemer 2012: 12). To corroborate this view, Denzin and Lincoln (2000: 5) argued that qualitative methodology becomes a more appropriate approach especially where the nature of the research problem has complex features. For instance, Lapan, Quartaroli, and Riemer (2012: 1) maintained that qualitative research has the quality to remain flexible for relevant changes. Therefore, the qualitative approach has assisted the researcher to be flexible during the data collection process and the researcher is then able to timely adapt for any change that could take place during the research period. Merriam (2009: 23) also outlined three major interests of basic qualitative research for understanding:

- How people (students) interpret their experiences;
- How they construct their world; and
- What meaning they attribute to their experiences.

Silverman (2013: 122) argued that the “qualitative research is more than one thing”. For instance, Braun and Clarke (2013: 25) noted that qualitative research serves as an umbrella word covering an array of interpretive practices. In this regard, interpretive research has been supported recently by many scholars such as Marshall and Rossman (2006); Creswell (2007, 2009); Silverman (2011, 2013); Maxwell (2010, 2012) and Seidman (2013) among others. Locke, Silverman and Spirduso (2010: 183) indicated that the main purpose of interpretive

research is “to understand a situation from the perspective of the participant”. Merriam (2009: 5) pointed out that qualitative research assists researchers to understand “how people interpret their experience, how they construct their worlds, and what meaning they attribute to their experience”. This means that qualitative research may generally reflect an open approach to accommodate many disciplines (Fielding and Lee 1998: 3). In this context, Kalof, Dan, and Dietz (2008: 20) indicated that “the best approach to understand the world is to examine how people see and define it”. Mauthner et al. (2012: 176) acknowledged that the proper way of gaining this understanding commonly involves applying a qualitative inquiry. Silverman (2013: 324) outlined five major rules which researchers should follow in order to conduct effective qualitative research and these rules are:

- Keep research simple: it needs to focus only on one specific or narrow research problem using a relevant theoretical model;
- Do not assume that people are simply concerned with subjective experience;
- Take advantage of using qualitative research, for example, the researcher has the ability to remain flexible during the research process;
- Avoid drowning in data and this means that the researcher should timely plan data analysis without any delay; and
- Avoid ‘journalistic’ questions and answers and this means that graduate students need to apply acquired skills in order to successfully follow academic guidelines when they are carrying out their research projects (Silverman 2013: 324-328).

### **4.3.2 Quantitative approach**

Kumar (2011: 103) discussed that quantitative research designs have some particular features and they “are specific, well structured, have been tested for their validity and reliability, and can be explicitly defined and recognised”. Corbin and Strauss (2008: 301-302) also supported that validity and reliability concepts are often associated with quantitative implications. Kalof, Dan, and Dietz (2008: 34) noted that a quantitative approach usually involves conducting a survey and asking the same kind of questions of every respondent. Parker (2011: 36) pointed out that a quantitative approach involves quantifiable data. To corroborate this view, Payne (2011: 13) noted that quantification generally occurs “in a wide range of research and analysis”. According

to Creswell (2009), quantitative research methods are designed to study variables that are measurable and they give answers to questions about the relationships among variables that the researcher seeks to know. For instance, Johnson and Christensen (2012: 39) noted that “a quantitative variable is a variable that varies in degree or amount. It usually involves numbers”. Kalof, Dan, and Dietz (2008: 59) further indicated that independent variables represent the ‘cause’ and the dependent variables reflect the ‘effect’. Babbie (2011: 15) initially refers to a variable as “a logical set of attributes”, whereas attributes in turn, reflect qualities that define a person or an object. Kumar (2011: 63) explained that the basic difference between a variable and a concept is based on ‘measurability’. Particularly within the current study the core variables are information related to needs, seeking behaviours, sources, uses and information systems (Wilson 1999: 251) used by international postgraduate students.

Sharpe and Koperwas (2003: 29) and Harwell (2011: 149) noted that a quantitative method often adopts a deductive approach during the data analysis process. DePoy and Gitlin (2011: 8) explained that deductive reasoning includes “moving from a general principle to understanding a specific case”, while inductive reasoning is the opposite. Importantly, during research process, Eriksson and Kovalainen (2008: 23) noted that many researchers apply both inductive and deductive reasoning in support of each other. On the other hand, Saunders, Lewis and Thornhill (2009: 91) highlighted that a deductive approach is less expensive than an inductive approach. Lodico, Spaulding, and Voegtler (2006: 12) indicated that the quantitative approach mostly involves collecting numerical data that can be counted. Onwuegbuzie and Leech (2005: 380) underlined that data deduction is relevant for the quantitative data analysis process. Although, Patton (2002: 13-14) noted that the key features of quantitative data analysis differ from those of qualitative data analysis, Merriam (2009: 18) presented a clear comparative table of the common characteristics of qualitative and quantitative approaches, presented in Table 4.1 below.

**Table 4.1: Characteristics of qualitative and quantitative research**

<b>Point of comparison</b>	<b>Qualitative research</b>	<b>Quantitative research</b>
Focus of research	Quality (nature and essence).	Quantity (how much, how many).
Philosophical roots	Phenomenology, symbolic interactionism, constructivism.	Positivism, logical empiricism, realism.
Associated phrases	Fieldwork, ethnographic, naturalistic, grounded, constructivism.	Experimental, empirical, statistical.
Goal of investigation	Understanding, description, discovery, meaning, hypothesis generating.	Prediction, control, description, confirmation, hypothesis testing.
Design characteristics	Flexible, evolving, emergent.	Predetermined, structured.
Sample	Small, non-random, purposeful, theoretical.	Large, random, representative.
Data collection	Research as primary instrument, interviews, observations, documents.	Inanimate instruments: scales, tests, survey, questionnaires, computers.
Primary mode of analysis	Inductive, constant comparative method.	Deductive, numerical.
Findings	Comprehensive, holistic, expansive, richly descriptive.	Precise, numerical.

**Source:** Merriam (2009: 18)

#### **4.4 Research paradigm**

Lapan, Quartaroli, and Riemer (2012: 7) and Schensul (2012: 76) indicated that the term ‘paradigm’ gained its root from the work of Kuhn (1962 revised 1970) commenting on the structure of scientific revolutions. Jackson (2003: 37) defined a paradigm as a “set of ideas, assumptions and beliefs that shaped and guided the activity of a particular scientific community”. Babbie (2011: 32) refers to a paradigm as a fundamental model which mirrors an

in-depth understanding of what people see and the way people comprehend the model. Somekh and Lewin (2011: xx) argued that “paradigms provided important frameworks of ideas for thinking about research methodology”. Kuhn (1996: 10-11) further contributed more ideas towards a better understanding of the use of paradigms by students during their academic journey. Blaikie (2010: 20) noted that in the early 1990s research paradigms were to some extent referred to as traditions or assumptions.

Grix and Watkins (2010: 17) and Morgan (2007: 53) argued that the term ‘paradigm’ has become a more popular concept within academic research. Babbie (2011: 32) particularly highlighted that “social scientists have developed several paradigms for understanding social behaviour”. Creswell and Plano Clark (2011: 40-41) and Creswell (2007: 19) provided four main paradigms or worldviews that might be applied to social science research and these are: post-positivism, social constructivism, participatory and pragmatism. The social science inquiry basically investigates people and observes their interaction with the environment (Lapan, Quartaroli, and Riemer 2012: 5). The current study therefore falls within the social sciences as it investigates international postgraduate students’ behaviour and their interactions with the academic environments surrounding them.

Blaikie (2010: 62) and Kaczynski, Salmona, and Smith (2014: 127) noted that researchers in the social sciences consider that key research questions have to define the suitable paradigm for a particular study. Neuman (2000: 114) advised that questions should not be vague, rather, more specific and understandable. Punch (2006: 36) further recommended that a researcher should explicitly clarify the significance of a selected paradigm for the purpose of the research study. Creswell and Plano Clark (2011: 40) initially noted that the post-positivism paradigm is more associated with quantitative research. DeCuir-Gunby (2008: 127) considered post-positivism as a fresh version of positivism. Patton (2002: 92-93) explained that the post-positivism paradigm considers that some appropriate theories may be successfully used to interpret the possible observable reality.

Sale and Brazil (2004: 353) noted that the positivists suggest that quantitatively “all phenomena can be reduced to empirical indicators which represent the truth”. Von Glasersfeld (2005: 33)

mentioned that positivism naturally has some links with the behaviourism approach from an educational perspective. Turner (1992: 157) states that positivism initially involves the process of collecting data, observing regularities, and extracting laws. From a positivism viewpoint, McNeill and Chapman (2005: 15) indicate that people's life experiences are governed by laws. Grix and Watkins (2010: 146) indicated that at some point, positivist researchers typically tend to determine predictions of human behaviour in order to gain the truth. Patton (2002: 93) noted that positivists believe that knowledge is relative instead of being absolute.

Poland and Pedersen (1998: 301) argued that some researchers expect a good respondent to be a person "who offers appropriately thoughtful rationales or explanations for behaviour and experiences". Nonetheless, Barbour (2008: 27) expressed that in most cases it is difficult to certify that participants were telling the researcher the truth and she then suggested the use of cross-checking questions to reduce the degree of uncertainty about the gathered research information. Corbetta (2003: 20) noted that post-positivism is more appropriate than the constructivism paradigm based on the nature of the study. Grix and Watkins (2010: 23) suggested using cross-checking questions with the aim of improving the level of understanding of the research outcomes. Fischer (1998: 136-137) describes the post-positivism paradigm as a useful approach which can facilitate accurate interpretation and in-depth analysis of empirical research which was considered relevant for the purpose of the present study.

The post-positivism paradigm can apply combinations of both quantitative and qualitative approaches for the purpose of a study (Nieuwenhuis 2010: 65), as this study does. A combination of quantitative and qualitative approaches provides more value to the outcomes of the study (Swanson and Holton 1997: 93). Dzurec and Abraham (1993: 75) indicated that "the objectives, scopes, and nature of inquiry are consistent across methods and across paradigms". The post-positivism paradigm provides two main advantages, namely data collection can appropriately be completed in a short time and statistical analysis can be accurately applied (Creswell 2009: 7). The post-positivism paradigm is regarded as a suitable approach especially to investigate the behaviour of individuals (Creswell 2009: 7). The study adopted a post-positivism paradigm and it then combined quantitative and qualitative methodologies (section 4.5.3).

## **4.5 Research design and survey approach**

This section discusses research design and the survey approach applied for the purpose of the present study based on the nature of the research problem investigated.

### **4.5.1 Research design**

Bogdan and Biklen (2007: 234) and Kumar (2011: 4) argued that research design enables a researcher to objectively answer the identified questions. The research becomes objective in a situation in which the personal opinions of a researcher do not influence the study findings (Mertens 2012: 23). Durrheim (2006b: 34), Blaikie (2010: 19), Babbie and Mouton (2001: 74) and Cooper and Schindler (2001: 134) maintained that a research design is a plan or blueprint of how a researcher systematically deals with the data required for answering the research questions. De Vaus (2002: 16) explained that research design basically consists of the structure of an investigation.

Maxwell (1996: 5) provided a schematically interactive model of research design and it includes five major elements: goals/objectives, conceptual framework/understanding, research questions (at the centre), methods, and validity. Bryman (2008: 30) asserts that “validity is concerned with the integrity of the conclusions that are generated from a piece of research”. McMillan and Schumacher (2001: 31) and Patton (2002: 10) highlighted that research design assists the researcher to identify and use appropriate data collection methods. Interestingly, Tredoux and Smith (2006: 161) and Kumar (2011: 94) mentioned that the appropriate research design allows the study to reach valid and reliable results. May (2011: 98) further highlighted that design should accurately provide the framework for data collection and suitable data analysis. Durrheim (2006b: 35) argued that research design allows the researcher to appropriately achieve the research objectives.

Boudah (2011: 160) noted that survey design is not essentially linear but rather flexible, and it basically assists in understanding the following important elements that were also appropriate for the purpose of the current study:

- Determine the research statement or the purpose of the study: which was to investigate the information seeking behaviour of international postgraduate students at public universities in KwaZulu-Natal.
- Select an appropriate research sample that needs to reflect the population: all subgroups of international postgraduate students were selected for the sample.
- Design instruments and develop reliable and valid research questions: questionnaire, focus group schedule and semi-structured interview schedule were logically designed.
- Determine the data collection methods: a questionnaire, focus group discussion and interview methods were used in the study and they yielded good research outcomes.
- Explain clearly data analysis and discussion of the results. SPSS and content analysis were used for data analysis: see Chapter Five and findings were comprehensively discussed in Chapter Six.

#### **4.5.2 Survey approach**

Neuman (2009: 144) noted that “surveys are the most widely used data-gathering techniques in the social sciences and other fields”. Walliman (2011: 9) and Barbour (2008: 153) recommended that the selection of a proper research design should be based on the nature of the study. Therefore, the survey is more useful due to the fact that the current study is primarily non-experimental research (Maree and Pietersen 2010a: 152). Lapan, Quartaroli, and Riemer (2012: 5); Walliman (2011: 11) and Gray (2009: 57) indicated that experimental studies basically formulate hypotheses. Kalof, Dan, and Dietz (2008: 16) described a hypothesis as “a statement of what we expect to observe if the theory is true”. This study was neither based on hypothesis nor prediction (Babbie 2011: 45). This explains the statement that the experimental approach fundamentally focuses on identification of causal relationships (Oliver 2010: 70). The present research did not actually intend to determine the cause of events (Jansen 2010: 21). Furthermore, Fink (2010: 63) notes that experimental studies basically involve testing new activities, but this study intended to describe the information seeking behaviour of international students rather than testing any activity. In addition, the study did not involve collecting data at different times, which is the core feature of experimental research (Blaikie 2010: 25).



The study employed survey research as a single method but with a combination of quantitative and qualitative methodologies. Edmonds and Kennedy (2013: 107) noted that survey research commonly reflects the descriptive approach. The present study is indeed a descriptive study in nature (Merriam 2009: 16) in the sense that it does not only intend to reveal the information-seeking behaviour of international postgraduate students, but it also aims to gain insights into their information needs, information sources and systems used, and use of acquired information. This study defines “what is happening behaviourally” (Rosnow and Rosenthal 1996: 15). The study has described the attitudes of international students towards a process of satisfying their information needs (Kumar 2011: 10). Furthermore, McNeill and Chapman (2005: 28) and Walliman (2011: 10) indicated that a descriptive study collectively involves the use of questionnaires and recorded interviews, and the current study also applied both techniques. In other words, the interpretation process has assisted the researcher to comprehensively explain the research findings (Patton 1990: 375). The researcher has managed to make sense of, and also tried to interpret the information seeking patterns of the students. Denzin and Lincoln (2005: 3) also noted that qualitative research supports an interpretive approach. Elliott (2005: 177) noted that qualitative evidence plays a vital role in better understanding “the meanings attached to individuals’ behaviour and experiences”. Best and Kahn (2006: 271) identify the survey as a research mechanism that uses both quantitative and qualitative research methodologies. According to Plowright (2011), although survey studies are perceived of as a quantitative research design, surveys can be successfully employed in qualitative research as well.

McMillan and Schumacher (2001: 602) further describe survey research as “the assessment of the current status, opinions, beliefs, and attitudes by questionnaires or interviews from a known population”. The present study falls into the same category as it has similar assessment features. The study also applied both questionnaires and interviews to gain in-depth understanding of information seeking behaviour of a well-defined population (Maxwell 2012: 64) and in this case, international postgraduate students. Babbie and Mouton (2001: 231) also highlight that survey research is very popular in South Africa. The present study was carried out at three South African public universities.

Babbie (2011: 277) pointed out that survey research usually involves three main steps and these include: questionnaire construction, sample selection, and data collection, through either self-administered questionnaires or interviewing. The present study implemented all three steps and moreover it employed both interviewing and self-administered questionnaires as data collection techniques. Neuman (2006: 43) noted that surveys are employed to gather information on the background, behaviours, beliefs or attitudes of a large number of people. This view was considered relevant for the purpose of the present survey research in the sense that international students represent a significant cohort of students at South African universities.

Lodico, Spaulding, and Voegtle (2006: 156) initially noted that “survey research is everywhere”. Christensen, Johnson, and Turner (2011: 330) stated that survey research commonly reflects non-experimental research. Babbie (2011: 276) highlighted that surveys have special strengths and these include: surveys are particularly useful in describing the characteristics of a large population; surveys make large samples feasible (especially using self-administered questionnaires); and standardised questionnaires have an important strength with regard to measurement generally. The survey research was appropriate to investigate students who were geographically dispersed and hard to find (Connaway and Powell 2010: 108). It has helped this researcher to describe the distribution of some attributes among international students (Merriam 2009: 5). In other words, Biemer and Lyberg (2003: 6) pointed out that “a large number of surveys are one-time surveys that aim at measuring population characteristics, behaviour, and attitudes”.

It was important to consider the recommended guidelines for decreasing survey costs as provided by Fink (2006: 140) and these guidelines included:

- Shorten the length of data collection: the study used the effective and efficient means of communication with the aim of collecting data within three months (Section 4.10.1).
- Reduce the number of follow-ups: this was achieved through making appointments in advance with participants, especially by arranging interviews with the HISOs based on their availability (Section 4.10.3).
- Limit pre-testing to a small number of participants: this was considered by pre-testing the interview with one International Student Officer and pre-testing the questionnaire

with eight post-doctoral students registered in the College of Humanities at the University of KwaZulu-Natal (section 4.11). They were all international students.

- Shorten time spent developing data collection instruments by adapting already existing instruments. This was also considered for the purpose of this study (section 4.10.1).
- Make the instrument as short as possible: only directly relevant information was collected (Appendices 2, 4 and 6).
- Use non-monetary incentives to encourage respondents: clarifying explicitly the benefits of the research results (Appendices 1, 3 and 5) in order to motivate students to actively participate in the research rather than advancing monetary payments.
- Shop around for the least expensive supplies and equipment: the researcher had used his personal laptop and voice recorder equipment provided by his programme.
- Reduce the number of survey activities: the study focused on the three targeted universities in a specific geographic region.

Babbie (2011: 277) discussed the main weaknesses of survey research which the researcher should take into account when deciding on the appropriate research method and these include: standardised questionnaire items often represent the least common denominator in assessing people's attitudes, orientations, circumstances, and experiences; surveys cannot measure social action; and they can only gather a self-report of recalled past action. However, the survey method has assisted the researcher to describe the information needs and interpret the information seeking behaviour process of the international postgraduate students under study (Cohen, Manion, and Morrison 2001: 169). In order to collect rich data, the researcher supported questionnaire results by organising a focus group discussion with students and conducting interviews with the HISO. The focus group discussion was helpful for participants to remind each other about past actions and it led to an open discussion and interaction. Interviews with the HISO further created an opportunity to receive open responses and personal views from interviewees. Therefore, the researcher is of the opinion that the strengths of the survey method outweighed the weaknesses and as such the survey was an appropriate method for the problem investigated.

### 4.5.3 Justification of methodological triangulation

Frick (2011: 187) noted that the combination of multiple approaches refers to a triangulation method. Teddlie and Tashakkori (2009: 31) revealed that the mixed methods style initially sketched its origin from Campbell and Fiskes's (1959) multiple method approach. There are generally two fundamental purposes for using mixed methodologies in a single study and these are triangulation of multiple methods and complementarity of research data from multiple sources (Babbie 2011 and Creswell 2009). According to Yin (2014), multiple sources of evidence are basically essential in research. Kalof, Dan, and Dietz (2008: 25) and Elliott (2005: 177) maintained that triangulation is seen as the best technique to understand the social world. Bryman and Bell (2011: 630-31) and Sarantakos (1998: 168) further mentioned other motives for using triangulation and these include: to obtain a variety of information on the same issues; to use the strengths of each method in order to overcome the deficiencies of the other; and to achieve a higher degree of validity and reliability. McNeill and Chapman (2005: 23) reinforced that triangulation helps to "verify the reliability of a particular research tool and the validity of the data collected". Pietersen and Maree (2010: 216) argued that "the validity of an instrument refers to the extent to which it measures what it is supposed to measure".

Babbie (2011: 25) noted that "both qualitative and quantitative methods are useful and legitimate in social research". Thompson (2004: 238-239) discussed that the strengths multiplied through combining both fundamental social research approaches, such as qualitative and quantitative methods within a single research study. Tashakkori and Teddlie (2003: 5), Johnson and Onwuegbuzie (2004: 15), and Mayring (2007: 1) have described mixed methods in a single survey as a new popular research system adopted by many researchers particularly in education and the social sciences but this system helps to confirm research data from multiple methods (Edmonds and Kennedy 2013: 173). Lichtman (2011: 209) provided five key elements of mixed methods namely qualitative and quantitative within a single study and these included:

- A mixed methods approach use simultaneously both qualitative and quantitative data in research study (Flick 2009: 32; Plano Clark and Badiee 2011: 276);
- It often highlights quantitative analysis and display of data;

- It frequently uses a basic qualitative approach instead of other individual approaches; it applies an objective or neutral writing style.

When used in combination, both qualitative and quantitative data yield a more complete data analysis (Nieuwenhuis 2010: 66), and they complement each other (Onwuegbuzie and Leech 2006: 483). The combination of both quantitative and qualitative methodologies within the single survey research was considered more relevant for the current study (Creswell and Plano Clark 2007: 5), due to the fact that these approaches were regarded as compatible for yielding meaningful outcomes of the study (Kumar 2011: 105). In this regard, Sharpe and Koperwas (2003: 32) acknowledged that the combination of quantitative and qualitative approaches promotes the compatibility of behavioural data analysis studies. In terms of their similarities, Sechrest and Sidani (1995: 78) highlighted that both approaches help researchers “describe their data, construct explanatory arguments from their data, and speculate about why outcomes they observed happened as they did”. Parker (2011: 33) then acknowledged that quantitative methods are frequently associated with other methods in the research study. Creswell and Plano Clark (2011: 12-13) discussed the fundamental advantages of applying combined methods in research and these were:

- It provides strengths that offset the weaknesses of both these two approaches;
- It provides more evidence for investigating a research problem than it could if only one method is being used;
- It enables the researcher to correctly answer the key research questions that could not readily be answered by one research method alone;
- It assists in bridging the research gap that could likely take place between multiple disciplines as some researchers may prefer either qualitative or quantitative research;
- It represents a practical or free feature which enables the researcher to become more flexible in the research field based on having different options to deal with actual situations.

Greene, Kreider, and Mayer (2004: 277) underlined that “flexibility, creativity, and resourcefulness” represent key benefits of using a combination of qualitative and quantitative approaches. Maxwell (2012: 106) noted that the use of triangulation in a single survey study

basically allows the researcher to deal with validity challenges. This view makes sense because many researchers triangulate their research data using multiple methods (Schensul 2012: 99), interviews and focus group discussions were also used within the present study. Kalof, Dan, and Dietz (2008: 22-26) outlined four major common multiple approaches in which triangulation is involved and they were applicable within this present study by using:

- Multiple strategies for collecting data (questionnaire, interview, and focus group discussions were used);
- Multiple sources of data (international students and the HISO were interviewed);
- Multiple techniques for data analysis (SPSS and thematic content analysis were employed); and
- Considering research from a variety of theoretical orientations.

McCaig (2010: 37) as well as Kelle and Erzberger (2004) noted that throughout the use of triangulation, survey findings from a questionnaire and an interview schedule assist the researcher to inform and support concrete conclusions and recommendations. Smith and Bowers-Brown (2010: 117) highlighted that the use of triangulation increases the validity of the research in a way that one method compliments and serves as a check-up point of another method. Barbour (2008: 155) also recognised the importance of applying complementary methods within a single study. Greene (2007: 20) further notes that triangulation provides several means of understanding circumstances.

However, Barbour (2008: 160) maintained that the main challenge of mixed method design lies in the many requirements that are involved in that kind of triangulation research process. In terms of key requirements involved in the use of combination of both approaches, Creswell and Plano Clark (2011: 13-14) underlined that a researcher needs knowledge and skills of the qualitative and quantitative approaches, enough time and sufficient resources to guarantee appropriate data collection and accurate data analysis. For example, Terre Blanche, Kelly, and Durrheim (2006: 276) maintained that proper listening and interpreting of qualitative interviews are not simple tasks and they require special skills. It was important to note that the present study considered all these factors and it then used the combination of qualitative and quantitative approaches within a single survey method.

#### **4.6 Sites of research**

Minishi-Majanja (2009: 148) states that “in many countries, governments have recognised the need to reorganise higher education in order to match the changing times and needs”. In the South African context, this has also happened and the South Africa government has transformed the higher education system and the existing number of public universities was reduced from 34 to 21 universities in 2004. Maree and van der Westhuizen (2010: 34) recommended that researchers should select suitable and feasible research sites. The study was conducted at the three public universities located in KwaZulu-Natal province, South Africa. The universities are: the University of KwaZulu-Natal (UKZN) which has five campuses in total, three offering Humanities subjects; University of Zululand (UNIZULU) which has two campuses, only one offering Arts subjects, and Durban University of Technology (DUT) which has five campuses, two offering Arts and Design subjects. The study covers three categories for South African universities and includes a traditional university (UKZN), a comprehensive university (UNIZULU), and a university of technology (DUT).

It was important to highlight that the researcher had applied for and received formal permission to access the research sites and then conduct research at the sites (section 4.14). A fourth university, Mangosuthu University of Technology ‘MUT’ was excluded from the study as it has only three faculties, namely Faculty of Natural Sciences, Faculty of Management Sciences and Faculty of Engineering, with no Humanities faculty. Biemer and Lyberg (2003: 29) argued that “decisions about whom to include or exclude in the target population are important”. In this regard, the MUT did not have a Faculty of Humanities/Arts so did not fit within the limitations and scope of the study (section 1.9).

#### **4.7 Research population and sampling techniques**

This section presents the population of the study and sampling frame. It further explained sampling techniques applied in the study and these involved both probability (stratified random) and non-probability (snowball) sampling techniques.

#### 4.7.1 Research population

Babbie and Mouton (2001: 173) define a population as “the theoretically specified aggregation of study elements”. Schensul (2012: 72) describes a study population as the people that form the focus of the research question analysis. Biemer and Lyberg (2003: 29) refer to a target population as “a group of persons or other units for whom the study results will apply”. Fink (2010: 63) clarifies that a group may represent any collective unit. Busha and Harter (1980: 57) described a population as “any group of persons, objects or institutions that have at least one characteristic in common”. Although international students have various cultural, language and educational backgrounds, they have a common characteristic which is that they all come to study in KwaZulu-Natal from countries outside of South Africa and the language of teaching and learning at surveyed universities is English, a second language for most of these students. The population of the study was drawn from the three public universities in KwaZulu-Natal (section 1.9). Connaway and Powell (2010: 116) noted that a selection of the population takes place at a stage prior to determining the sample of the study and this process around determining the study population basically involves consideration of the following:

- The selection of population criteria (section 1.9);
- Population size desired: all international postgraduate students enrolled in the Humanities/Arts formed the population of the study (Table 4.2 below);
- Parameters of the survey population (section 1.9 and Table 4.2); and
- Consideration of money and time involved while selecting the population of the study (section 1.9).

Welman, Kruger and Mitchel (2005: 25) further define units of analysis as “those elements we examine in order to create a summary descriptions of all such units and explain differences among them”. Babbie (2011: 74) mentioned that “any type of individual can be the unit of analysis for social research”. Petersen (2008: 141) argued that unit of analysis needs to be identified for all academic research. Therefore two different units of analysis were selected for this study. De Vaus (2002: 30) provided that “in a survey research the unit of analysis often is an individual”. Two units of analysis were the international postgraduate students and the Heads of the International Student Offices. The international postgraduate students represented



five levels of study: postgraduate certificate, postgraduate diploma, honours, masters and doctoral qualifications at UKZN and UNIZULU. At the DUT, students represented three levels of study: honours (BTech or 4<sup>th</sup> year students), master of Technology (MTech) and doctor of Technology (DTech). It was important to note that the DTech degree did not have any participants at the time data were collected.

#### **4.7.2 Sampling frame**

Connaway and Powell (2010: 117) noted that the sample frame serves to easily select a sample from the entire population. Babbie and Mouton (2001: 647) and Gillham (2007: 18) argued that a sample frame is a popular concept used in social research studies. Czaja and Blar (2005: 187) advised to make request to the registrar office regarding information on registered students. The sample frame was ultimately sought from the management of each targeted institution based on the requests made by the researcher. However, the records which appeared on the lists provided by the universities were only overall total numbers and not detailed information about the students. The overall total number assisted the researcher in determining an accurate sample size for the study (Table 4.2), but there was inadequate information regarding distribution of questionnaire for surveyed students (section 4.7.3.2).

#### **4.7.3 Research sampling techniques**

Gravetter and Forzano (2009: 144) define sampling as “the process of selecting individuals to participate in a research study”. Robson (2002: 260) argued that sampling is a fundamental element of a research project because it guides the study when determining the specific group of aspects to be observed. The aim of sampling was to obtain a representative sample or small collection of units from a much larger population for the purpose of this study. Sampling can be divided into two types, namely probability or non-probability sampling (Maree and Pietersen 2010b: 172) and both sampling methods were used for the purpose of this study. Research sampling was done in two phases to determine the research sample size and to reach the determined sample that is demarcated in the first phase.

#### **4.7.3.1 Research sample sizes**

Babbie and Mouton (2001: 173) outlined two main advantages of probability sampling and these involved the chance to offer a more representative sample than other methods; and it then helps to increase the accuracy of the research sample through its ability to avoid biases. Probability sampling technique known as stratified random sampling was used to determine the sample size. Connaway and Powell (2010: 124) identified two main types of stratified random sampling including 'proportional and disproportional'. The study used proportionate sampling which follows the same procedure when determining the sample size from each subgroup. It assisted in ensuring that the researcher was able to represent not only the overall population, but also key sub-groups of the population, especially small minority groups. Chambers and Skinner (2003: 1) revealed that stratified sampling is a popular sampling technique used in survey studies, and was used in the present study. Durrheim and Painter (2006: 136) also maintained that "stratified sampling is used to establish a greater degree of representativeness in situations where populations consist of subgroups or strata". In this regard, each smaller group was considered as a 'stratum' (DePoy and Gitlin 2011: 167). Therefore, each level of study, for example, masters or PhD reflected what Johnson and Christensen (2012: 225) described as a stratification variable.

Connaway and Powell (2010: 123) highlighted that stratified sampling typically promotes the idea of dividing elements of the study into small understandable groups. Babbie (2011: 203) discussed that representativeness can be achieved "by decreasing the probable sampling error". Arber (1993: 70) noted that statistical sampling method increases the degree of confidence in the sample selected. Babbie (2011: 203) explained that "in a sample stratified by class, the sampling error on this variable is reduced to zero". DePoy and Gitlin (2011: 167) also noted that stratified random sampling allows an increase in homogeneity as well as minimising the variability in every stratum. This makes sense since variability is seen as "the heart of human behaviour" (Bailey and Burch 2002: 146). The researcher took notes of these reviews as they were important for this study because each postgraduate level of study, rather than a college class, represents homogeneous subsets of the study population. As a result, homogeneous subgroup members were willing to share their views (Liamputtong 2011: 34-35). For example,

the subgroup of honours students had the commonality of attending classes on a regular basis and writing a research project, while the subgroup of doctoral students were involved in academic research projects, mostly with high levels of critical academic analysis.

It was important to note that Bulmer and Warwick (1993: 27) indicated that “the sample survey is a standard tool of social research, and the one most commonly in use”. Groves et al. (2009: 6) maintained that primarily “probability samples are the standard by which other samples are judged”. Palys (2008: 697) argued that the relevant sampling strategy is generally based on “the context in which researchers are working and the nature of their research objectives”. To ensure diversity of opinions from participants, namely international postgraduate students surveyed in the Humanities/Arts, were represented in terms of gender, nationality and level of study (Section 5.2 and Table 5.27). This was maintained through the use of stratified sampling (Blaikie 2010: 174). The study used the stratified sampling technique to provide a reasonable sample size and it increases the chance of every international postgraduate student being part of this study.

Ngulube (2005: 134) indicated that sample size has to be representative because a sample that is very small reduces the utility of results. According to Yin (2011) and Kumar (2011), sample size refers to the total number of participants involved within research. The larger the sample size selected, the smaller the error in estimating the characteristics of the population (Collins 2011: 361), but the more it can cost to administer a survey and analyse the data (Somekh and Lewin 2011: 223). A sample that is too large involves use of unnecessary resources (Czaja and Blair 2005: 19) and this issue was prevented in the study by using a sampling table (Appendix 7).

Walker (2010: 97) advocated that sampling is very relevant especially when the population is considered to become ‘too large to test’. The sampling table in Saunders, Lewis and Thornhill (2009: 219) was used to determine the sample size of 196 international postgraduates given the large volume of the population (460 students) from UKZN. The sampling was applied to the population from UKZN based on two major constraints such as time and cost involved (Maree and Pietersen 2010b: 172). For instance, Biemer and Lyberg (2003: 18) noted that “cost is a component in any efficiency criterion related to survey design”. Pickard (2007: 95) noted that if

the entire population is being used for the purpose of the study, it is called ‘a census’. In other words, Groves et al. (2009: 3) noted that “censuses are systematic efforts to count an entire population”. Stopher (2012: 65) explained that in a census every member of the population is included in the study and this may increase the confidence level in relation to the findings of the study.

There were 26 international postgraduate students registered in the Faculty of Arts at UNIZULU and were all included in the sample, an example of a ‘census’. Similarly, the Faculty of Arts and Design at DUT had 10 international postgraduate students and all participated in the study. The sampling table (Appendix 7) helped to determine the sample of 196 participants at the UKZN. The sample size of the study is 232 students as indicated in Table 4.2 below.

**Table 4.2: Student population and sample size of the study**

**N=460**

Subgroups	UKZN		UNIZULU		DUT	
	Population	Sample	population	Sample	Population	Sample
Doctoral	211	90	15	15	0	0
Masters	147	63	6	6	4	4
Honours	78	33	4	4	6	6
PG Certificates	21	9	0	0	0	0
PG Diplomas	3	1	1	1	0	0
<b>Total</b>	<b>460</b>	<b>196</b>	<b>26</b>	<b>26</b>	<b>10</b>	<b>10</b>

**Source:** Field data (2014)

#### **4.7.3.2 Reaching the research sample**

Bryman and Bell (2011: 190-192) discussed three main types of non-probability sample such as the snowball sample, the quota sample, and the convenience sample. Snowballing sampling was used to reach the identified sample size for the study (Maree and Pietersen 2010b: 177). Generally, Babbie and Mouton (2001: 167) state that snowball sampling involves the process of

following up on referrals because one found subject recommends other subjects. In snowball sampling, as with non-probability sampling, a small number of individuals are identified to represent the population with particular characteristics (McNeill and Chapman 2005: 50). These key individuals are subsequently used as informants to recommend similar individuals in a population (Somekh and Lewin 2011: 224). In this regard, Delamont (2004: 225) considered that there are always possible negative impacts on findings where the researcher failed to gain access to potential respondents. It was expected that it would be hard to reach the student participants because the lists that had been provided by the targeted universities simply included the total number of each group of students and it did not have contact details of the students. Fortunately, DePoy and Gitlin (2011: 169) considered snowball sampling to become a more popular procedure depending on the nature of research problem and they described it as the networking method. Therefore, the chairpersons of international student clubs had also created a solid network channel that helped access to the large volume of other student respondents.

Of the sample of 232 participants, 222 students were surveyed using the self-administered questionnaire, while 10 students participated in the focus group discussion. As noted below (Section 4.8.1) questionnaires were hand-delivered to respondents who were initially located through the chairpersons of the international student associations/clubs. The participants were not only hard to identify but they were also dispersed across different locations. Czaja and Blair (2005: 18) noted that a mailed survey questionnaire enables the researcher to overcome geographical boundaries even for a large sample size of respondents. School/Faculty Administrators notably assisted with identifying email addresses of student respondents and they sent electronic copies of the questionnaires to international students on behalf of the researcher. The support of these administrators and chairpersons of clubs helped overcoming the likely challenges of this study such as time constraints, lack of funding resources, and difficulties in accessing international students (Maree and van der Westhuizen 2010: 42).

The HISO were identified through purposive sampling and all were included in the study (Creswell and Plano Clark 2011: 173). Saunders, Lewis and Thornhill (2009: 175) argued that purposive sampling is an accurate technique to apply to academic research when working with

small groups of respondents. The number of five HISOs was small and they were all well informed in terms of services delivered to international students involved in the study. The three Heads of the International Students Office were interviewed for the purpose of gathering in-depth data and they voluntarily provided relevant data. Multiple interviews assisted in improving the value of information received by comparing a series of interviews from different sources (Gerson and Horowitz 2002: 211). The contact addresses of the interviewees (email and office extension) were retrieved from the websites of their respective universities. The in-depth interviews were voice recorded (Kalof, Dan, and Dietz 2008: 35), using a voice recorder and the laptop once permission was obtained from interviewees prior to the interview.

#### **4.8 Data collection instruments and procedures**

Werner (2004: 37) notes that “the best strategy is to rely on the primary data as much as possible”. In this context, the researcher took note of this as this study fundamentally relied on the primary data collected from the respondents. Trochim (2001: 108) supported that a survey study involves asking people or subjects to answer questions, usually via questionnaires or interviews. Fraenkel, Wallen and Hyun (2012: 111) noted that the process of using relevant research data to solve a research problem is known as ‘instrumentation’. Gillham (2007: 2) argued that it is important to adequately combine a questionnaire with other tools because the combination brings high levels of confidence in the study findings (Appendices 2, 4 and 6). Cryer (2000: 64) argued that the research confidence is basically achieved and maintained through accumulating accurate data gathered from multiple sources.

Silverman (2013: 125) indicated that there is no absolute right technique or wrong method. Wertz et al. (2011: 81) then highlighted that “multiple methods are legitimate for multiple purposes”. Along the same lines as mentioned above (section 1.7.2), two previous studies investigating the information seeking behaviour of students, particularly within the context of KwaZulu-Natal province namely those of Seyama (2009) and Nkomo (2009) used both quantitative and qualitative methodologies which were employed in survey research. The main research instrument was the questionnaire and it was supported by interviews for the purpose of these studies (section 3.3).

Quinlan (2011: 286) pointed out that interviews and focus group discussions are mainly used to collect qualitative data, while structured interview schedules or questionnaires are popular research tools for quantitative inquiry. The present study used both quantitative and qualitative methodologies in a single survey research. The questionnaires were hand delivered to the international postgraduate students and an electronic copy was also sent to the students via their personal emails. This was supplemented by semi-structured interviews conducted with the HISOs from the surveyed universities. A focus group discussion with international students was also used in this research study.

#### **4.8.1 Survey questionnaire**

Walliman (2011: 97) argued that questionnaires are initially designed for gathering quantitative data, but it may also serve for collecting qualitative data. Kalof, Dan, and Dietz (2008: 118) described a questionnaire as a set of structured questions which can easily be answered by respondents. Babbie (2011: 243) maintained that surveys include the use of a questionnaire which is regarded as “an instrument designated to elicit information that will be useful for analysis”. Biemer and Lyberg (2003: 30-31) argued that “each data element corresponds to a single response to a question on the questionnaire”. Kumar (2011: 165) notes that both open-ended questions and closed-ended questions (section 4.8.1.3) can serve the purpose of the survey questionnaire.

Burton and Bartlett (2009: 76) noted that designing a questionnaire is commonly a complex task. Punch (2003: 31) indicates that in many cases the researchers have a choice to adjust an existing questionnaire with the aim of using it in the study. The questionnaire’s items were adapted from the questionnaire designed by Kaniki’s (1995) study in relation to determining information needs and seeking behaviour of a specific group of people. Items were modified for use in establishing the information seeking behaviour of surveyed students. This questionnaire has been successfully applied in other studies such as Kaniki (1995, 2001) and Majyambere (2012) studies. The questionnaire included both open-ended and closed-ended questions (Babbie 2011: 244).

Survey questionnaires were initially hand-delivered to respondents who were generally identified via the chairpersons of the various international student associations or clubs. In addition, the research offices used by postgraduate students and postgraduate LANs helped the researcher to systematically reach a large number of international students at the same time. Basically the researcher expected to collect the completed questionnaires immediately after they were completed. This idea was based on the fact that “some people respond very quickly” Gillham (2007: 47). The vast majority of students were very cooperative and they agreed to complete and submit the questionnaire on the same day. Where this was not possible, arrangements were made to collect the completed questionnaires the following day. The distribution and collection of the questionnaires was completed within a three month period. Christensen, Johnson, and Turner (2011: 57) argued that researchers should consider the strengths and weaknesses of the questionnaire before using it for data collection purposes.

#### **4.8.1.1 Advantages of a questionnaire**

Tourangeau (2004: 210) highlighted that the use of a questionnaire incurs the lowest costs when collecting data. Fink (2010: 114) argued that a questionnaire is more economical than conducting an interview. Babbie and Mouton (2001: 232) indicated that self-administered questionnaires allow the researcher to achieve a higher response rate with a literate population which has a detectable address. Gillham (2007: 5-8) clearly explained key benefits of using a questionnaire as the main data collection instrument and these include:

- Low cost in time and money;
- Easy to obtain information from many people very quickly;
- Respondents can complete the questionnaire when it suits them;
- Analysis of answers to closed questions is straightforward;
- Less pressure for an immediate response;
- Respondents’ anonymity; and
- Lack of interviewer bias (Gillham 2007: 6).

In this context, Sriyani (2002: 22) successfully surveyed information gathering behaviour of Arts scholars in Sri Lankan Universities through the use of a questionnaire to collect both



quantitative and qualitative data. Although participants were geographically scattered, Sriyani (2002: 24) revealed that the study reached an overall 70% response rate. The researcher must send reminder messages when electronic copies of questionnaire are distributed to participants with the aim of increasing response rates (May 2011: 104). In the current study electronic copies of questionnaire were sent by two administrators on behalf of the researcher by using student's emails. Students were then encouraged to participate in the study and they positively responded to the questionnaire (section 4.10). This supportive approach boosted the response rate for the questionnaire.

#### **4.8.1.2 Disadvantages of a questionnaire**

Tourangea (2004: 211) highlights that the standards applied to designing a survey questionnaire may not necessarily become useful for another study. Gillham (2007: 8-13) discussed the key limitations of using questionnaires alone as sole data collection instrument, which the present study avoided by using several techniques, and these were:

- Problems of data quality (completeness and accuracy);
- Problems of motivating respondents;
- The need for brevity and relatively simple questions;
- Misunderstanding cannot be corrected;
- Questionnaire development is often poor;
- Seek information by just asking questions;
- Assumes respondents have answers available in an organised fashion;
- Lack of control over order and context of answering questions;
- Question wording can have a major effect on answers;
- Respondents literacy problems; and
- People talk more easily than they write (Gillham 2007: 8).

#### **4.8.1.3 Forms of questions**

McNeill and Chapman (2005: 36) and Babbie (2011: 244) argued that the survey questionnaire can successfully use both types of research questions: open-ended questions and closed-ended

questions. Bryman and Bell (2011: 248-249) noted that research questions can help to clarify the focus of the study. Nastasi, Hitchcock, and Brown (2011: 307) and Plano Clark and Badiee (2011: 278) noted that questions should provide a precise link between the study's design and its mixed methods. Powell (1997: 93-94) discussed that open-ended questions allow participants to freely answer research questions, while close-ended questions help to limit the response to listed choices. Gillham (2007: 5) highlighted that with closed-ended questions, the possible answers are scheduled.

Kalof, Dan, and Dietz (2008: 120) outlined that surveys designed for qualitative motives mostly apply open-ended questions because they are flexible for data collection. Eriksson and Kovalainen (2008: 85) then underlined that open-ended questions basically enable the researcher to obtain more detailed answers. White (2009: 66) briefly recommended that questions have to always remain brief, clear and precise. Rosnow and Rosenthal (1996: 95) discussed that benefits and limitations of open-ended questions are normally seen as the opposite of the closed-ended format. For instance, Bryman and Bell (2011: 249-250) noted that open questions help a researcher to receive detailed responses in a free manner but they require time and effort for proper data capturing and analysis of findings, whereas, closed questions have some advantages in that they are easy to complete, and resultant data is easy to organise and analyse because answers are pre-defined but they may sometimes leave out relevant information. Czaja and Blair (2005: 18) indicated that the combination of both structured (closed) and unstructured (open) questions within a questionnaire promote the reliability of the responses. The study has therefore used a questionnaire which included both open-ended and closed-ended questions.

#### **4.8.2 Focus group discussion**

Schutt (2006: 317) points out that the focus group technique was initially developed in the early 1930s because some scholars found that the survey alone would not effectively satisfy all research fields. Smithson (2008: 357) then noted that focus groups became more popular in social science research in the late 1990s. Krueger and Casey (2009: 2) noted that "a focus group is a special type of group in terms of purpose, size, composition and procedures". Hennick

(2007: 152) noted that the researcher should secure a venue which is free of distraction and which will make participants more comfortable for discussion. The venue for focus group discussion was booked and secured two weeks before the exact date on which the discussion happened. The focus group comprised international postgraduate students from UKZN.

The study used a focus group interview that promoted interaction and then enriched the findings of the study (Barbour 2008: 18). Gillham (2007: 20) and Wilkinson (2004a: 188) noted that open discussion basically promotes interaction (conversation) between the researcher and the participants. Morgan (1997: 35) described group discussion as “free-flowing conversations”. Ivanoff and Hutberg (2006: 127) indicated that interaction creates an open space to freely exchange ideals and views. Participants can even challenge and match one another in a complementary way (Wilkinson 2004b: 276). Human interaction permits people involved in particular event to socialise and share common issues related to their social life (Clayman and Gill 2004: 589). This is because interaction helps to produce clarification of responses (Merton 1987: 555). Similarly, Babbie (2007: 308) notes that focus groups favourably promote the level of insights gained about people, in this case, the information seeking patterns of international postgraduate students.

There is always a need to determine the number of focus groups and suitable number of participants required to form each focus group within a research study (Smithson 2008: 359). In this regard, and Schutt (2006: 317) suggested that one or many focus groups may be conducted in a single study in order to gain conclusive insights. Conradson (2005: 133-134) suggested that the size of a focus group is determined based on the consideration of accessibility and voluntary participation of respondents. Kelly (2006: 304) observed that focus groups are commonly comprised of six to twelve people. Similarly, Smithson (2008: 359) discussed two key elements, first, a group of less than four members is too small to produce rich information, and second, a group with more than eight participants becomes too large and it is then difficult to control the discussion process. Thus, the study conducted a focus group based on the accessibility of student respondents at UKZN and involved 10 respondents. It considered the representation of student respondents in terms of gender, level of study and diversity of academic disciplines found in the Humanities. It was difficult to conduct a focus group at the

DUT given the small population of 10 participants which were also scattered throughout Durban. At the UNIZULU many student respondents lived off-campus and it was difficult to get them together at the same time.

Kelly (2006: 304) further underlined four generic constituents for a focus group namely “procedure, interaction, content, and recording”. It was important to take note of all these basic components of a focus group. The procedure and interaction components were achieved through creating a supportive environment, asking focused questions to encourage discussions and respecting the opinions and alternative viewpoints of other students of the focus group. Liamputtong (2011: 46) recommended always considering time management in order to avoid losing concentration or deviating from the main topic. This was successfully achieved because the focus group discussion lasted about an hour and a half and this was a reasonable length of time for an important academic discussion.

Barbour (2008: 165) describes a focus group as a key feature of a participatory approach. Gillham (2007: 20) notes that the main task of a researcher is to become a chairperson and minute-taker. Whereas, Macnaghten and Myers (2004: 71) suggest that the researcher needs to play a role of a flexible moderator as it motivates the participants to openly participate. In other words, Quinlan (2011: 299) notes that a focus group differs from a group interview in a way that in the former situation a researcher is a facilitator of a smooth discussion, while in a group interview process a researcher becomes an interviewer and respondents play the role of interviewees. The researcher guided the focus group discussion process and recorded the discussion results with an audio voice recorder and personal laptop.

The use of audio voice recorder and laptop had effectively left the researcher free to observe and take brief notes during the discussion interview period (Silverman 2011: 277). To corroborate this view, Vidovich (2003: 88) cautioned that short notes taken during the discussion period can help in case an audiotape or voice recorder failures. The researcher’s laptop also served as a backup tool for data collection during the interview and focus group discussion when notes would not be taken during the facilitation. The recording was done since

permission to do so was granted by respondents. It was necessary to describe the process followed during administration of focus group discussion which was as follows:

The moderator started by greeting and welcoming all participants and also introducing the researcher. The moderator briefly explained the process of the focus group discussion and the researcher had explicitly explained the aim and purpose of the study. In terms of ethical consideration, the researcher highlighted the rights of the participants to withdraw at any stage without any harm and guaranteed their anonymity and confidentiality. Every respondent willingly signed the informed consent form (Appendix 5) and submitted it to the researcher as evidence of voluntary participation in the focus group discussion. The participants were asked if they were willing to be recorded and they all agreed. The participants were requested to introduce themselves and were seated on a round table within the discussion room which made it easier to interact during the focus group discussion. The research and moderator were seating in the middle of the table in order to effectively control the discussion and accurately record the respondent's views and opinions.

Focus group participants were assigned codes based on their seating places and the reason for this was to ensure anonymity and gather rich data. For example, the first participant starting from the right side of the researcher was assigned FMS1 as a code, and the 10<sup>th</sup> participant who was seating next to the moderator on his left side was assigned a code of FMS10. The first letter stood for the focus group, second letter stood for the degree programme. This means that FMS stands for a master's student, FDS stands for a doctoral student and FHS stands for an honours student. Participating students were given numbers from one to ten. The duration of focus group was expected to take approximately one hour, however due to the positive interaction and relevant contributions from all participants, the focus group took one hour and twenty four minutes (from 2:30pm to 3:54pm).

#### **4.8.3 Interviews with the Heads of International Students Office (HISO)**

Babbie (2011: 263) argued that an “interview is an alternative method of collecting survey data”. Walliman (2011: 99) mentioned that an interview is regarded as a very flexible tool for

gathering qualitative data. Eriksson and Kovalainen (2008: 80) outlined three common types of qualitative interviews and these include: a structured interview which follows a particular order of questions, semi-structured interview which is systematic and at the same time more comprehensive, and the unstructured interview which is free to the extent it can take any direction. The semi-structured interviews with the HISOs were recorded via voice recorder once permission to do so was granted by the Heads. The permission to use the voice recorder was necessary because for respondents to actively participate, they needed to be comfortable with the applied method (Burton and Bartlett 2009: 288-89). Barbour (2008: 17) states that semi-structured interviews become the most preferable data collection tool adopted by many qualitative researchers because it allows the researcher and interviewees to maintain the same focus on a specific topic. This study used the semi-structured interview. The interview was conducted in a face-to-face setting which is the most common method of collecting interview data (Babbie and Mouton 2001: 249).

Marshall and Rossman (1989: 65) and Seidman (2013: 50) advised that the researcher had to make contact either in person, on the telephone, or in an email message. These methods were used to contact all interviewees in advance. Seidman (2013: 53) provided three important elements which need to be considered in advance to ensure the successful achievement of interview results and these include suitable “time, dates, and places of interviews”. These elements were accomplished in this study as the researcher and interviewees agreed upon the time and dates of the interviews. Most interviewees had preferred the afternoon probably because they wanted to attend to work issues in the morning. Interestingly, interviewees decided to have the interviews in their offices as they were familiar and comfortable in their respective working places. The researcher was able to openly interact with the interviewees to gain more insights and received relevant comments and additional suggestions due to the fact that there were no time constraints to the interview. Corbin and Morse (2003: 341) highlighted that the researcher should provide supplementary explanations about the purpose of the study which was initially explained in the covering letter submitted while informed consent was sought. This point was considered during the process of the present study.

#### **4.9 Pre-testing research instruments**

Presser (2004: 2) argued that pre-testing is a suitable way to evaluate questionnaires in advance. Dillman (2000: 140-147) discussed two common methods for testing questions in a questionnaire and these include “review of the questions by survey experts and cognitive interviewing”. Dillman’s view was considered and the three research instruments (Appendices 2, 4 and 6) were simultaneously reviewed by two academic staff from the researcher’s department, one retired Professor from the Information Studies Programme and one subject librarian at the UKZN library. These experts had suggested changes in terms of using clear and precise terms, reducing the number of questions and using shorter sentences within the research instruments. It was important to note that all necessary suggestions of the pre-test were considered and changes were made to the instruments.

Sheatsley (1983: 226) notes that the importance of pre-testing is basically to identify the likely difficulties and weakness in a questionnaire and make changes at the early stage. Czaja and Blair (2005: 22) argued that pre-testing a questionnaire furnishes feedback on a particular item that requires essentially some changes and adjustments. Pre-testing was an important stage during the research process (McNeill and Chapman 2005: 45) because it effectively assisted in identifying ambiguities and changes were made where necessary (May 2011: 107). Saunders, Lewis and Thornhill (2009: 394) recommended pre-testing the questionnaire because this process allows for refining it and then the study can overcome ambiguities that would distract the respondents from answering correctly the research questions.

The questionnaire was pre-tested on eight post-doctoral international students enrolled in the College of Humanities at the UKZN. These eight respondents were all international students and seven of them had completed their PhD degrees at UKZN. Only one respondent had completed his PhD degree elsewhere, at the University of Fort Hare, South Africa. Eight respondents represented five countries and these were Kenya, Nigeria, Sudan, Tanzania, and Zimbabwe. These students were used to ensure that the wording used in the questionnaire was clear and understandable. The pre-testing of the questionnaire was done to guarantee the validity and reliability of the main research tool used for data collection. Minor grammatical

errors were detected and some page numbers were missing when pre-testing the questionnaire. These were all carefully corrected and adjusted before distribution of the final questionnaire for data collection purposes. In addition, the semi-structured interview schedule was also piloted with the International Student Officer at the MUT. It was found to be clear and understandable. Therefore the interview schedule did not need any adjustment after piloting this data collection instrument. The focus group schedule was also ready to be used for data collection, after being reviewed by academics and revised by the researcher.

#### **4.10 Response rate**

Babbie (2011: 261) indicated that the response rate may similarly be called the completion rate or the return rate. In terms of an adequate response rate for an academic study, Saunders, Lewis, and Thornhill (2009: 219) noted that a 100% response rate is unlikely or even impossible. In the social sciences, Babbie and Mouton (2001: 261) highlighted that a response rate of 60% is good and a response rate of 70% is very good. Babbie (2011: 261) recently expressed a response rate of 70% is an acceptable average rate for research data collected, to be more representative of the whole population. The response rate achieved in the current study from all data collection instruments was 91.9%. Of the 237 expected student respondents, the overall response rate from 218 respondents was 91.9%, details of which are provided in Chapter Five (section 5.1.2).

The researcher applied all possible methods to achieve a positive response rate. In this regard, the researcher was working at the Cecil Renaud Main library at the Pietermaritzburg campus of UKZN as a Library Assistant. Many international students were frequent visitors to the library to use the library services and the researcher was then able to contact targeted respondents. The researcher was also a full-time student and he was staying in one of the university residences (Denison) accommodating postgraduate students. The researcher had an opportunity to find as many student respondents either at the postgraduate research offices or computer LANs.

The distribution of the questionnaire on the other campuses was accomplished with the assistance of two research assistants (doctoral students). One research assistant was registered for an education programme at UKZN-Edgewood Campus. The other research assistant was



registered in Political Sciences at UKZN-Howard College and she was well known to a large number of international students because she had undertaken all her previous studies at the UKZN (spending almost seven years at the university). Both research assistants were full-time students staying in residence halls and they then had the time and opportunity to meet many participants on the campuses. In addition, representatives of international student's clubs assisted with the distribution of questionnaires at campuses since they knew of the other international postgraduate students who could participate in the study.

As mentioned earlier, the School Administrator from UKZN-Howard College campus, and the Faculty Officer at the DUT-City Campus identified personal email addresses for student respondents and forwarded electronic copies of the questionnaire to students on behalf of the researcher. This was a useful strategy for distribution of questionnaires because students do not regularly check their university email boxes. Mailing the questionnaire via personal email resulted in a positive increase in the number of completed questionnaires (from 134 to 197) within a period of three weeks. In addition, a subject librarian from UNIZULU, who was providing library training for graduate students also distributed and collected copies of questionnaires from respondents. All these efforts resulted in a very good response rate.

#### **4.11 Validity and reliability**

Boudah (2011: 64) indicated that “reliability is integral to both validity and trustworthiness”. Tourangeau (2004: 211) commented on the fact that pre-testing research instruments does not automatically certify the reliability and validity of research responses. McMillan and Schumacher (2001: 428-429) rather explained that the use of multiple research instruments increases the validity and credibility of the research. This means that credibility of results is based on the fact that the researcher had accurately presented data findings in a valid way. Similarly, Mertens (2012: 29) highlighted that credibility of research can be achieved through using multiple data sources, so this study also used different sources of information. Burton and Bartlett (2009: 25) pointed out that validity and reliability of instruments should always be considered as compulsory elements that yield very rich data.

#### **4.11.1 Validity**

Hammersley (2008: 42) indicated that it is important to assess validity in social research. Tourangeau (2004: 211) expressed that “validity of data are often a challenge to get, especially with attitude questions”. De Vaus (2002: 53) argued that “in fact, it is not the measure that is valid or invalid, but the use to which the measure is put”. Burton and Bartlett (2009: 25) noted that validity powers the choice of methods to use in the study. Pre-testing data collection tools primarily improves the validity of the research data (Punch 2003: 42). Fowler (2002: 76) believed that “good questions maximise the relationship between the answers recorded and what the researcher is trying to measure”. In terms of content validation the study has ensured that the instruments' items reflected the key research questions. Wield et al. (2002: 47) highlighted that “the core research question needs to be convertible into tasks for a research project”.

Tredoux and Smith (2006: 163-164) divided validity into two forms namely internal and external validity. Edmonds and Kennedy (2013: 4-5) recently discussed that internal validity largely applies to experimental research because it naturally deals with causal inferences; while, external validity involves choosing the proper probability sampling technique. Tredoux and Smith (2006: 167) further noted that external validity is effective in describing the social world. Perakyla (2011: 365) explained that “the validity of research concerns the interpretation of observations”. Onwuegbuzie and Leech (2005: 377) maintained that the useful integration of both qualitative and quantitative approaches within a research study increases the validity. Johnson and Christensen (2012: 245) noted that validity involves inference that gains its origin from all kinds of research findings. Ercikan and Toth (2011: 221) argued that the validity of instruments involves two major components including the development and the identification of measurement instruments. The validity of the study was achieved through the use of triangulated instrument data within a single survey. Research instruments were pre-tested in order to minimise errors. Validity of the data depended on the construction of questionnaire items, and how accurately student understood and responded to these items.

### **4.11.2 Reliability**

Wiersma (2000: 8) noted that “reliability refers to the consistency of the research and the extent to which studies can be replicated”. Johnson and Christensen (2012: 245) indicated that research reliability embraces the stability of research outcomes. Pole and Lampard (2002) observed that it is based on consistency of a repeatable method. Fink (2010: 114) stated that “a reliable data collection method is one that is relatively free from measurement error”. Fowler (2002) highlighted three common strategies to increase the reliability of the research instruments and they were considered for the purpose of this study. These three strategies contain the following:

- The researcher had identified the suitable process to follow while directing questions and also guiding the participants during the data collection period;
- The researcher had focused on maintaining the same meaning of every research question asked to each respondent and this was done in order to avoid any confusion; and
- The researcher also took into account the importance of framing the research questions in a manner that each respondent could easily understand the question asked and then answer it properly.

The study adapted a questionnaire that had been tested and previously employed for the purpose of studying information behaviour (Kaniki 1995 and 2001). The interview schedule originally applied in the study conducted by Majyambere (2012) was adjusted for the current study and it yielded qualitative data. The focus group schedule was also reviewed and revisited to ensure that all key themes were included and systematically arranged for gathering meaningful results.

### **4.12 Research data analysis**

This section discusses the fundamental process followed during data analysis. It also highlights the type of quantitative and qualitative analysis within the present study. Merriam (2009: 175) indicates that “data analysis is the process of making sense out of the data”. Blaikie (2010: 161) notes that there are two main forms of research data, such as numbers and words. Chi (1997:

271) argued that by integrating quantitative and qualitative data analysis of verbal data, an opportunity to interpret the results less subjectively is possible.

#### **4.12.1 Data analysis process**

Research data were first coded before being systematically analysed. Terre Blanche, Durrheim, and Kelly (2006: 324) indicated that “coding means breaking up the data in analytically relevant ways”. Miles and Huberman (1984: 89) and Vidovich (2003: 89) stated that coding was the first reliable stage of data analysis as it involves giving communicative labels to data chunks. Kalof, Dan, and Dietz (2008: 95) noted that coding refers to the process of organising and logically interpreting research data. Bryman and Bell (2011: 249) agreed that the core purpose of coding is to render the data in a form in which they may easily be presented and analysed. Furthermore, Thornberg and Charmaz (2012: 44) suggested that coding data could take place simultaneously with the data collection process. Surveyed students who participated in the focus group were assigned codes during the group discussion process and this assisted in generating evidence based on views from respondents. The HISOs were interviewed and assigned codes directly after each interview in order to avoid any omission of important data.

The transcription process was done on the following day of each interview while collected data and context were still fresh in the mind of the researcher. Interview and discussion results were transcribed in the original language used in the data collection process (English). This was done to prevent or avoid the challenge expressed by Temple (2002: 844) that “concepts across languages vanish into the space between spoken otherness and written sameness”. Supporting this view, Silvean (2001: 163-166) discussed in detail the process involved in transcription of recorded interview data. DePoy and Gitlin (2011: 189) encouraged that audio tape or voice recorder data should be transcribed to make research analysis easy. Marshall and Rossman (2006: 177-180) recommended that the researcher should give enough time and proper attention to the process of transcribing and checking that the transcript records compares with the original information from the tape. Similarly, the recorded interview (audio voice recorder) was transcribed onto computer in a textual format (Johnson and Christensen 2012: 520) and double checked against the laptop data also recorded during the interview process. This was undertaken

in order to overcome the query exposed by Mauthner and Doucet (1998: 120) also mentioned in Elliott (2005: 184) who stated that many researchers sometimes do not provide enough detailed information about the transcription process in their research. This process was done before the research data was subjected to thematic content analysis in order to create relevant themes and prevent missing research data (details in section 4.12.3).

#### **4.12.2 Analysis of quantitative data**

SPSS was used to systematically capture and analyse quantitative research data. Quantitative data were collected via the questionnaire administered to international students as explained above (section 4.8.1). Durrheim (2006a: 189) provided three main stages involved in preparation of data for ensuring accuracy analysis and these include “coding, entering, and cleaning”. Charmaz (2006: 43) defines coding as “naming segments of data with a label that simultaneously categorises, summarises, and account for each piece of data”. All questions were assigned numerical codes and it was possible for the researcher to systematically enter or capture data and consistently analyse the captured data. Importantly, each questionnaire was numbered at the time it was returned from the respondent before being entered into SPSS in order to detect any missing questionnaires. As a result, Flick (2011: 142) noted that during the data cleaning process, the researcher can positively detect possible coding errors and correct these mistakes.

Durrheim (2006a: 191) expressed that the use of a statistical computer package basically assists the researchers to quantitatively organise data and effectively analyse research findings. In this regard, Kostagiolas (2013) used a questionnaire as a data collection tool and SPSS for analysis for information seeking behaviour study carried out in Greece. The researcher applied the latest version of SPSS at the time of data capturing and data analysis (21<sup>st</sup> version) as this package keeps on being updated from time to time. Burton and Bartlett (2009: 80) revealed that SPSS is very useful when “dealing with large-scale samples”. Bryman and Bell (2011: 360) and Bell (2005) indicated that SPSS should be useful for generating descriptive and frequency tables as a form of data presentation which the current study also used for presenting results.

Schutt (2006: 447) indicated that frequency distribution allows the study to present the important number (statistical data) and relatively percentages for further interpretation of research findings. Paltridge and Starfield (2007: 138) argued that researchers from different disciplines prefer to use tables and figures to visually represent findings but they further advised to sequentially assigning numbers to tables or figures based on the actual chapter in a report as well as each item. It was important to take into account this advice and the present study assigned numbers to tables and figures throughout the dissertation accordingly, for example, Table 4.2 student population and sample size of the study. This means that first number (4) represents the chapter of which the table falls in and the second number (2) refers to the place of a table in a particular chapter (section 4.7.3.1).

Moreover, Nicol and Pexman (2010: 4) discussed that “a good figure is one that is easy to understand, presents findings in a clear manner, summarises information, and requires little interpretation”. McNeill and Chapman (2005: 17) and Walker (2010: 86) recommended the simultaneous use of figures, graphs and tables for presenting research findings based on each type of data. Similarly, the study used both tables and figures with the aim of making the research findings more understandable and easier to interpret. Figures were used for clarification of the relevant information behaviour models and also used for presentation of results to maintain consistency in this study. This was because figures were clearly meaningful and understandable for data analysis and they made discussion of findings easier.

#### **4.12.3 Analysis of qualitative data**

According to Smith and Bowers-Brown (2010), observations and content analysis are some of the research methods that are frequently used in both quantitative and qualitative studies. In many cases, observational studies reflect qualitative research and they often analyse existing activities (Fink 2010: 64). Furthermore, Flick (2011: 133) noted that content analysis may apply to both quantitative and qualitative data analysis. Franzosi (2004: 548) noted that in the early days of content analysis, some scholars including Kaplan (1943: 230) and Cartwright (1953: 424) indicated that content analysis encompasses a quantitative description of a communicated message.

Kalof, Dan, and Dietz (2008: 105) argued that “the main goal of content analysis is to systematically classify words, phrases, and other units of text into a series of meaningful categories”. Struwig and Stead (2001: 14) state that content analysis focusses mainly on gathering and analysing of data textually. Similarly, Krippendorf (1980: 21) had noted that content analysis develops valid inferences from text. Weine et al. (2005: 560) expressed that content analysis contributes to gaining an in-depth insight. Franzosi (2004: 550) noted that thematic analysis has become a popular method of content analysis. Neuendorf (2002: 24-25) also describes content analysis as the best approach to adopt in qualitative analysis. Research data were qualitatively analysed using content analysis and it led to the development of relevant themes within the present study.

Krippendorf (1980: 60-63) discussed some common methods of content analysis and these include elementary syntactical analysis, referential analysis, prepositional analysis, and thematic analysis. The data generated from interviews, group discussions and open-ended questions in the questionnaire were specifically analysed through thematic content analysis (Nieuwenhuis 2010: 101). This action was positively accomplished because the words or gathered explanations with common meanings were grouped within the same category before being systematically analysed (Connaway and Powell 2010: 223). This technique had made the data analysis journey more accurate and understandable.

Namey et al. (2008: 138) highlighted that qualitative data analysis often involves two categories such as content and theme analysis. The main idea was that qualitative content analysis involved creating “themes and recurring patterns of meanings” (Merriam 2009: 205). Thus, this qualitative analysis technique assisted the researcher in correctly analysing textual data (Lee and Fielding 2004: 530). The analysis journey was effectively accomplished since the themes were comprehensively identified. Patton (1990: 371-372) revealed that qualitative data analysis and interpretation allowed the researcher to deal with the following research challenges:

- Make sense of a huge volume of data;
- Reduce the large quantity of information;
- Identify important patterns; and
- Build a reliable framework that guides discussion of findings (Patton 1990: 372).

#### **4.13 Ethical issues in research**

McNeill and Chapman (2005: 37), and Aita and Richer (2005: 123) indicated that ethical principles should provide positive orientations for research. Wassenaar (2006: 67) provided four basic ethical principles including autonomy and respect for the dignity of participants, voluntary informed consent; non-maleficence (prevent any likely harm); beneficence (direct benefits of the study); and justice (fair selection of participants). Mertens (2012: 19) recommended all researchers follow the ethical guides and principles from their official institutions (Appendices 8, 9 and 10). Drake and Heath (2011: 52) noted that the research project should be ethically cleared by the university concerned (Appendices 11, 12 and 13). Steneck and Burger (2007: 829) and Breen (2003: 188) noted that the main reason for research ethics is to avoid or prevent misconduct in a study (Appendices 14 and 15).

Lincoln (2009: 154-155) further discussed that ethical research should apply the authenticity principle in order to have balanced views including all possible perspectives within a study (Appendices 2, 4 and 6). Silverman (2013: 161-163) discussed the five key codes or standards of research ethics and they were all considered in the study. These five standards included:

- Voluntary participation and the right to withdraw;
- Protection of research participants (Suter 2012: 100);
- Assessment of potential benefits and risks to participants;
- Obtaining informed consent before starting fieldwork;
- Harm to research participants must be avoided (Silverman 2013: 163).

Smith (2010: 41) highlighted that the ethical consideration imperative involves seeking informed consent from participants before starting the data collection process (Appendices 1, 3 and 5). Birch and Miller (2012: 94) noted that the study has to comprehensively promote voluntary participation. Kumar (2011: 246) and Walliman (2011: 48) mentioned that the researcher has a duty not only to guarantee the anonymity of the respondents, but also to secure the confidentiality of the research information. McNeill and Chapman (2005: 13) argued that these two elements motivate the validity of research. Kalof, Dan, and Dietz (2008: 49) provided that this reassures truthful responses. In terms of sharing rights, Watkins and Schulman (2008:



306) believed that the researcher gains authorship of the study and respondents have the right to remain anonymous as much as possible. Mauthner et al. (2012: 177) then highlighted that the researcher should maintain a professional relationship with participants throughout and should ethically protect the anonymity of respondents.

These research ethics were guaranteed and observed throughout the study (Agee 2009: 439). This was initially achieved through the use of a clearly written covering letter of explanation about the study (Gillham 2007: 37). Mockler (2007: 95) and Davies (2010: 134) noted that a researcher should obtain informed consent from all participants. Richie and Lewis (2006: 76) noted that informed consent “involves ensuring that potential participants have a clear understanding of the purpose of the study”. Kalof, Dan, and Dietz (2008: 47) and Smith (2010: 43) maintained that it is imperative for a researcher to seek informed consent at the early stage before a researcher begins any fieldwork or data collection. Ritchie (2003: 217) concluded that informed consent is conclusively required for all researchers (Appendices 1, 3 and 5).

Securing anonymity and confidentiality of data collected is essential (Blaikie 2010: 31). The present study followed the ethics policy of the University of KwaZulu-Natal available at <http://research.ukzn.ac.za/EthicsPolicy12111.aspx>. Permission to conduct research at surveyed universities was requested by the researcher (Appendices 8, 9 and 10). Gatekeeper’s letters were received from appropriate university offices (Appendices 11, 12 and 13). The ethical clearance certificate (Appendix 15) was obtained from the researcher’s university ethics committee (also recommended by Czaja and Blair 2005: 240). The researcher provided each participant in advance, a covering letter that explained the nature and purpose of the study (Silverman 2013: 166). The covering letters explained the right to voluntary participation or withdrawal from the study at any stage/time and this was always attached to each data collection tool. The voice recorder was used to record interviews and permission was obtained prior to the interview with the HISO and focus group discussion with international students as mentioned earlier.

As per university policy, all audio and written data are to be securely stored for at least a period of five years. This requirement of keeping research data safely for quite a long period of time

was considered important (Kalof, Dan, and Dietz 2008: 49). Furthermore, Silverman (2013: 172) also recommended using number-coded transcripts which helped to prevent the misplacing of research data, and assisted in increasing the degree of confidentiality and protection of anonymity in this research. Therefore, anonymity was maintained with the support of using distinct codes. Seidman (2013: 67-69) discussed the following rights of the participants, which include:

- Voluntary participation of respondents: this was achieved via covering letters and extra explanations provided to the participants before interviews started or questionnaires were administered.
- Right to withdraw from the study at any stage or any time: this right was fully explained and assured at the beginning of data collection. Fortunately, none of the participants wanted to withdraw from the study, rather they were all excited to participate and contribute their viewpoints for the purpose of the study. This was because respondents had expectations that some actions would be urgently taken by the university management to improve certain services based on the present research findings.
- Right to reviewing and withholding interview material, for example, if requested (but it did not happen), interviewees could be guaranteed access to the voice recorder used to record his/her interview and even access to the transcript related to their contribution.
- The right to privacy: this was achieved throughout by the use of codes and the safe keeping or storage of the research data, whether physically (room or cupboard) or electronically (audiotape or computer devices used to capture and to save research records) in order to increase confidentiality and protect anonymity.

#### **4.14 Evaluation of the research methodology**

The sample size of 196 from the total number of 460 international postgraduate students enrolled in the College of Humanities at the University of KwaZulu-Natal has been determined using a probability sampling method known as ‘stratified random sampling’. Table 4.2 above provided detailed information about the sample of 196 students (Appendix 7). Furthermore, a group of 36 international postgraduate students from the Faculty of Arts and Design at UNIZULU and DUT (26 and 10 students respectively) had been added to the sample size.

Numbers of international postgraduate students were received from surveyed universities. Particularly, the latter group of 36 international students was sampled using the census sampling method and this means that all members of the population from UNIZULU and DUT were included in the study. Thus, the overall total sample size of students was 232 (91.9%). It was achieved through the use of the non-probability sampling method called 'snowball sampling' as contact information for students was not available. The five HISOs were selected using the census sampling method. This was because the study considered all five HISOs to be involved in the universities decision making processes and the establishment of policies related to academic issues faced by international students. More importantly they deal directly with the provision of support services such as gatekeepers between the host university management and international students.

Data collection instruments included a self-administered questionnaire and focus group discussion with international postgraduate students, and these were supported by a semi-structured interview conducted with the HISOs. Bryman and Bell (2011: 473) acknowledged that on request, the researcher may share the interview guide with interested persons. The interview schedule was sent electronically to the HISOs one week before the interviews took place and the main purpose was to positively increase the level of useful responses since the respondents were given enough time to familiarise themselves with the research topic. Semi-structured interviews played an important role in that the study used information from the interviews to compare with the data from the questionnaire and focus group. The focus group assisted the researcher in collecting rich data in a way that participants were free to discuss their opinions in their own words. Focus group data were regarded as complementary resources that had supplemented the data collected from interviews with the HISOs and the student questionnaire.

Fielding (2012: 124) recently acknowledged that the use of triangulation methods enables the study to represent 'convergent validation' through integration of qualitative data and quantitative data within a single survey study. This was achieved in the present study. Furthermore, the reliability of the study was maintained through providing explicit instructions to participants, using a voice recorder, accurate coding and based on the research questions and

data analysis. The study has quantitatively captured and analysed research data using SPSS (21<sup>st</sup> version) which was the latest version available at the time of data analysis. The questionnaires were coded, entered and cleaned for data analysis. The audio voice recorder and laptop data were transcribed and thematic content analysis was appropriately used to qualitatively analyse research data in textual format. The study broke down the data and then created themes which assisted the researcher to qualitatively analyse the research data textually. Then themes were presented and discussed in order to provide meaningful research findings.

The discussion section is inevitable in writing a thesis. It offered the researcher an opportunity to systematically link findings of the study to the already identified main themes within literature (Punch 2003: 76). It was important to note that Rudestam and Newton (2001: 121) provided key guidelines to consider when writing a thesis/dissertation, particularly during discussion of research findings. These guidelines were considered relevant for the purposes of the study and they involved the following:

- An overview of the important research findings;
- A consideration of the findings in light of existing research studies;
- Implications of the study for the present theoretical framework;
- A systematic analysis of research findings that do not fully support the predefined hypothesis (the present study did not use hypothesis);
- Identify the limitations of the study that could impact the validity of the results; and
- Recommendations for further research studies (Rudestam and Newton 2001: 121).

It is always necessary to provide coherent conclusions in the dissertation. According to Bunton (2005), there are two popular types of conclusions for the purpose of writing a thesis/dissertation and these include field-oriented and thesis-oriented conclusions. Bunton (2005: 215) describes a field-oriented conclusion as “focuses mainly on the field and only mentions the thesis and its findings or contributions in the context of the whole field”. Bunton (2005: 214-215) further discusses a thesis-oriented conclusion as “focuses mainly on the thesis itself, beginning with a restatement of purpose and summary of findings and claims”. The researcher has not only considered the nature of the current research but also revisited and carefully reviewed previous masters and PhD dissertations and other research carried out within

the same area of research in order to decide on the appropriate type of conclusion to be applied. The researcher then found the thesis-oriented conclusion to be more suitable and relevant for the purposes of the present study. Relevant recommendations were coherently provided based on the summary of research findings.

Carey and Asbury (2012: 16) suggested that it is crucial to use a common language which is largely used by respondents because it facilitates and promotes the willingness to participate in focus group discussions. This means that all research instruments including the questionnaire and interview schedule, as well as focus group discussion tool were in English. Belcher and Hirvela (2005: 188) argued that graduate students are expected to use understandable English language terms when they are interpreting qualitative data for the purpose of dissertation writing. English was the only language used during the entire research process as it was the accepted medium of instruction at the surveyed universities.

#### **4.15 Summary of the chapter**

This chapter explained the research approaches applied in the study and these were qualitative and quantitative. It described and discussed the paradigm and design underpinning the study and how the survey design was selected due to the nature of the research problem investigated. The population of the study, sampling techniques, data collection instruments, and data analysis methods were comprehensively discussed in this chapter. Research instruments were triangulated with the aim of obtaining richer data. Pre-testing of research instruments, evaluation of research methods, and consideration of ethical issues were coherently discussed to ensure validity and reliability of research findings. The next chapter focuses on presentation of results (Chapter Five), while findings are discussed in Chapter Six.

## **CHAPTER FIVE: PRESENTATION OF RESULTS**

### **5.1 Introduction**

Chapter Five presents the findings from the self-administered questionnaires, focus group discussion and semi-structured interviews. The questionnaire and focus group results include academic and personal information needs of student respondents; sources consulted; problems experienced when seeking information; the use of library resources and services; consultation of ISO services; and suggestions for the improvement of information services. The results from the semi-structured interviews with the HISOs include information about the main ISO services; collaboration between the ISO and other service providers; a policy document for international students; university support and marketing strategies used by the university to improve services.

#### **5.1.1 General background**

This chapter presents the results of the study. The purpose of this study was to investigate the “information seeking behaviour of Humanities/Arts international postgraduate students in public universities in KwaZulu-Natal Province, South Africa”. The study covered three public universities which were the University of KwaZulu-Natal (UKZN), Durban University of Technology (DUT), and University of Zululand (UNIZULU). The University of South Africa (UNISA) was not included because the study focussed on contact international students instead of distance learning students. The Mangosuthu University of Technology (MUT) was excluded from the study because the university did not have a faculty of Humanities. This chapter presents research data that were collected to achieve the purpose of the study. This was systematically done with the aim of accurately answering the research questions underpinning the study which were outlined in Chapter One (section 1.5). The five research questions were as follows:

1. What are the information needs of international postgraduate students?
2. What information resources are used by international postgraduate students?
3. How do international postgraduate students obtain the information they need?

4. What problems do international postgraduate students experience in terms of acquiring information?
5. How can information services that are offered to international postgraduate students be improved?

The research data were presented based on the data gathering tools. The survey method and interview schedule were the two main sources of research data. The survey approach was used to collect data from respondents and included three categories. The first category of the survey included data collected by using questionnaires distributed to students and it was supported by the second category which involved a focus group discussion with students who had not participated in the survey questionnaire. The third category presented semi-structured interview data collected from the Heads of International Students Offices (HISOs).

### **5.1.2 Response rate of respondents**

A total of 222 copies of the questionnaire were distributed to international postgraduate students (section 4.7.3.2) and the response rate was 205 (92.3%). Three returned questionnaires were spoilt and could not be used so there were 205 unspoilt completed questionnaires that were used for the purpose of this study. All 10 participants (section 4.7.3.2) attended the focus group discussion that took place at the researcher's campus, a response rate of 100%. Of the five HISOs expected to participate in the semi-structured interview, three (60%) participated. One HISO was on sick leave for a long period and another HISO promised to participate in the study but was away for a couple of months, and therefore could not be interviewed. Consequently, two expected interview participants were not able to participate. Table 5.1 below indicates that out of 237 possible respondents, the overall response rate was 218 respondents (91.9%). This overall response rate involved 60% of interview data and 92.7% of survey data. Therefore, a response rate of 91.9% was better than a response rate of 70% recommended by some scholars as indicated above.

**Table 5.1: Response rate of respondents**

**N=237**

<b>Data collection tools</b>		<b>Expected respondents</b>	<b>Actual respondents</b>	<b>Percent</b>
Students	Questionnaires	222	205	92.3
	Focus group	10	10	100.0
HISOs	Interviews	5	3	60.0
<b>Total</b>		<b>N=237</b>	<b>218</b>	<b>91.9</b>

**Source:** Field data (2014)

### **Section 1: Questionnaire background information**

This section presents a summary of the questionnaire background information with the aim of providing a profile of the surveyed respondents involved in the study.

#### **5.2 Demographical data of surveyed students**

The demographic data of surveyed students was elicited from 20 questions that were asked in section one of the questionnaire. Questions 1 to 3 provided general information including gender, age, and country of origin. Questions 4 to 14 identified universities, category and study programme of respondents, and place of accommodation. Questions 15 and 16 indicated the main home language and official languages spoken by respondents. Questions 17 to 20 asked about the use of English by respondents as a medium of instruction at the three public universities involved in the study.

##### **5.2.1 Gender of respondents**

This section presents the gender of the international postgraduate students who participated in the survey. It involves both male and female respondents from the three surveyed universities.



**Table 5.2: Gender**

N=205

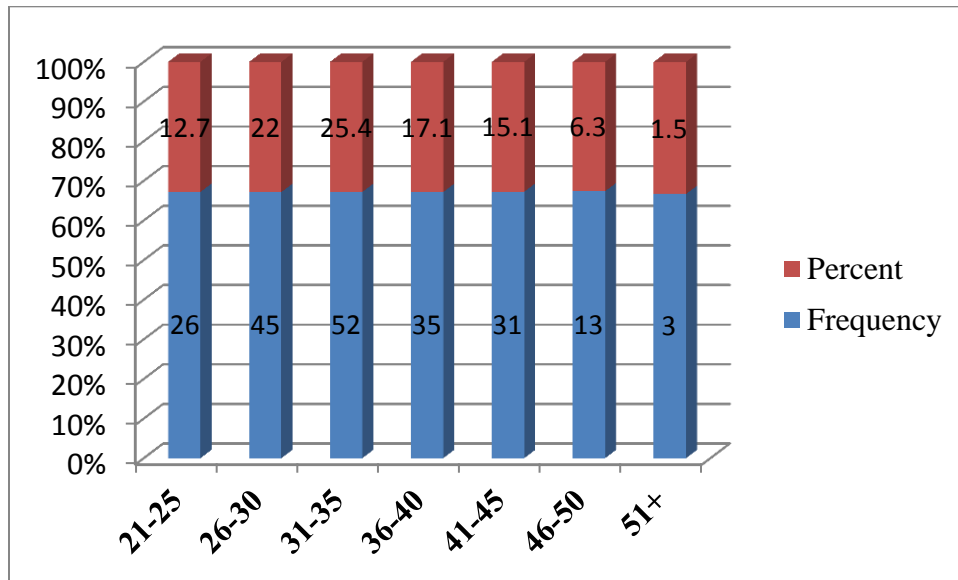
Gender	Frequency	Percent
Male	128	62.4
Female	77	37.6
<b>Total</b>	<b>205</b>	<b>100.0</b>

Source: Field data (2014)

Table 5.2 above shows that of the 205 respondents, 128 (62.4%) were male and 77 (37.6%) were female students.

**5.2.2 Age range of respondents**

This section presents the age categories of respondents from the three public universities. The age ranges were grouped into seven categories of which the youngest age range was 21-25 years and the oldest age range was 51 years and above. Details are depicted in Figure 5.1 below.



**Figure 5.1: Age range (N=205)**

Source: Field data (2014)

Figure 5.1 above shows that the greatest number of students, 52 (25.4%) respondents, were in the age range of 31-35 years, followed by the age range of 26-30 years with 45 (22%) respondents. This indicates that the most common age groupings were the two consecutive age categories of 26-30 years and 31-35 years, representing 97 (47.4%) respondents. This means that of the 205 respondents, almost a half of respondents were between 26 and 35 years old. The next two age groups were almost evenly divided between 36-40 years old and 40-45 years old: 17.1% and 15.1% of respondents respectively. The youngest age range of 21-25 years was represented by 26 (12.7%) respondents. The lowest age range represented by respondents was in the age range of 51 and above with only three (1.5%) respondents.

### **5.2.3 Country of origin of respondents**

This section presents the numbers of surveyed respondents based on their country of origin. All international postgraduate students who answered the questionnaire were originally from the African continent. Table 5.3 below indicates the country of origin for all 205 respondents who participated in the study.

Like other tables presented in this chapter, Table 5.3 was arranged in descending order from the largest to the lowest score of the countries presented in the study. Table 5.3 above shows that almost a half, representing 96 (46.9%) respondents, were from two African countries, namely Nigeria as the largest represented country in the study with 60 (29.3%) respondents, followed by Zimbabwe with 36 (17.6%) respondents. Four countries were presented by between 10 and 14 respondents and these included Kenya with 14 (6.8%) respondents, Democratic Republic of Congo (DRC) and Malawi were equally represented by 12 (5.9%) respondents and Zambia was represented by 10 (4.9%) respondents.

**Table 5.3: Country of origin**

N=205

Country	Frequency	Percent
NIGERIA	60	29.3
ZIMBABWE	36	17.6
KENYA	14	6.8
DRCONGO	12	5.9
MALAWI	12	5.9
ZAMBIA	10	4.9
BURUNDI	9	4.4
LESOTHO	8	3.9
SWAZILAND	7	3.4
TANZANIA	7	3.4
UGANDA	6	2.9
CAMEROON	4	2.0
ETHIOPIA	4	2.0
RWANDA	4	2.0
GHANA	3	1.5
ANGOLA	2	1.0
NAMIBIA	2	1.0
BENIN	1	.5
BOTSWANA	1	.5
MOZAMBIQUE	1	.5
SIERRA LEONE	1	.5
SUDAN	1	.5
<b>Total</b>	<b>205</b>	<b>100.0</b>

**Source:** Field data (2014)

Five countries were represented by less than 10 respondents. These were Burundi with nine (4.4%) respondents, Lesotho with eight (3.9%) respondents, Swaziland with seven (3.4%) respondents, Tanzania with seven (3.4%) respondents, and Uganda with six (2.9%) respondents. Three countries including Cameroon, Ethiopia and Rwanda were equally represented in the study by four (2%) respondents for each country. Three countries were represented by either three or two respondents which included Ghana with three (1.5%) respondents, while Angola and Namibia were equally represented by two (1%) respondents per

country. The five lowest countries represented in the study counted for one (0.5%) respondent each and these included Benin, Botswana, Mozambique, Sierra Leone, and Sudan.

#### 5.2.4 Distribution of participants at the three host universities

This section presents the proportion of international students at each university participating in the survey. Table 5.4 below shows the distribution of three host South African universities involved in the study.

**Table 5.4: Host universities**

**N=205**

<b>University</b>	<b>Frequency</b>	<b>Percent</b>
UKZN	180	87.8
UNIZULU	16	7.8
DUT	9	4.4
<b>Total</b>	<b>205</b>	<b>100.0</b>

**Source:** Field data (2014)

Table 5.4 above shows that the University of KwaZulu-Natal was the highest represented university with 180 (87.8%) respondents. University of Zululand was the second highest university presented with 16 (7.8%) respondents and Durban University of Technology was represented by nine (4.4%) respondents.

#### 5.2.5 Distribution across university campuses

Six campuses from three public universities were represented in the study. There were three campuses from University of KwaZulu-Natal which included Pietermaritzburg Campus, Howard College and Edgewood Campus. Durban University of Technology had two campuses, namely City Campus and ML Sultan Campus. University of Zululand was represented by UNIZULU-Main Campus. Table 5.5 below shows this distribution: UKZN had a majority of

respondents enrolled at the Pietermaritzburg Campus with 122 (59.5%) respondents, followed by Howard College with 42 (20.5%) respondents and Edgewood Campus with 16 (7.8%) respondents. UNIZULU-Main Campus had 16 (7.8%) respondents. DUT's campuses had slightly equal number of respondents, DUT-City Campus had five (2.4%) and DUT-ML Sultan Campus had four (2%).

**Table 5.5: University campuses**

**N=205**

<b>University</b>	<b>Campus</b>	<b>Frequency</b>	<b>Percent</b>
UKZN	Pietermaritzburg	122	59.5
	Howard College	42	20.5
	Edgewood	16	7.8
DUT	City Campus	5	2.4
	ML Sultan	4	2.0
UNIZULU	Main Campus	16	7.8
<b>Total</b>		<b>205</b>	<b>100.0</b>

**Source:** Field data (2014)

### 5.2.6 University schools or departments

This section provides data about the schools and departments within the three universities that participated in the study. These included six schools from UKZN and eight departments including three departments from DUT and five departments from UNIZULU. Table 5.6 below presents the schools or departments in descending order. They are arranged from the highest to the lowest in terms of enrolments. Table 5.6 below indicates that out of six UKZN schools surveyed from within the College of Humanities, the School of Social Sciences was the largest represented school with 100 respondents (48.8%). This was followed by the School of Religion, Philosophy and Classics with 35 respondents (17.1%). School of Education, 22 (10.7%), School of Arts, 12 (5.9%), School of Built Environment and Development Studies, six (2.9%), and School of Applied Human Sciences, five (2.4%).

**Table 5.6: Schools/departments participated****N=205**

<b>University</b>	<b>School/Department</b>	<b>Frequency</b>	<b>Percent</b>
UKZN	Social Sciences	100	48.8
	Religion, Philosophy & Classics	35	17.1
	Education	22	10.7
	Arts	12	5.9
	Built Environment & Development Studies	6	2.9
	Applied Human Sciences	5	2.4
<b>S/total</b>		<b>180</b>	<b>87.8</b>
UNIZULU	Information Studies	11	5.4
	English	2	1.0
	Communication Sciences	1	.5
	History	1	.5
	Sociology	1	.5
<b>S/total</b>		<b>16</b>	<b>7.8</b>
DUT	Media, Language & Communication	6	2.9
	Fine Art & Jewellery Design	2	1.0
	Visual Communication	1	.5
<b>S/total</b>		<b>9</b>	<b>4.4</b>
<b>Total</b>		<b>205</b>	<b>100.0</b>

**Source:** Field data (2014)

Table 5.6 shows that of the five UNIZULU Departments within the Faculty of Arts; Information Studies was the highest represented department with 11 (5.4%) respondents. The English Department had two (1%) respondents, while the other three UNIZULU Departments surveyed had one (0.5%) respondent for each department respectively. These three departments were Department of Communication Sciences, Department of History, and Department of Sociology.

Table 5.6 also shows that out of three DUT departments surveyed in the Faculty of Arts and Design; the Department of Media, Language and Communication had six (2.9%) respondents and this means the department had more than twice the number of the other two DUT departments surveyed including the Department of Fine Arts and Jewellery Design and the Department of Visual Communication.

### **5.2.7 Level of study and age distribution by level of study**

This section presents the postgraduate level of study of participants involved in the study. International postgraduate students surveyed in the study were grouped into four categories (degrees). These included postgraduate diploma, honours, masters, and doctoral degrees. DUT respondents who participated in the study were registered for a BTech final year (4<sup>th</sup> year or honours) and MTech (masters). Table 5.7 below shows the composition of postgraduate levels of study and age range distribution of respondents surveyed in the study.

International students registered for doctoral degrees were in a majority, 95 (46.3%) respondents, followed by those registered for a master's degree, 85 (41.5%) respondents. honours degrees respondents comprised 24 (11.7%) respondents, while postgraduate diploma students comprised the smallest group with one (0.5%) respondent.

Table 5.7 below provides a general picture of the link between postgraduate levels of study and age range of the international students. The age range of 21-25 years had 26 respondents and they were equally divided between honours and masters programme with 13 (50%) for each degree programme. The age range of 26-30 years had 45 respondents, the majority of 28 (62.2%) were registered for a masters. The age range of 36-40 years had 35 respondents, the majority of them, 24 (68.6%) were registered for a doctoral degree.

**Table 5.7: Level of study and age****N=205**

Level of study and age		Level of study				Total
		PG Diploma	Honours	Masters	Doctoral	
<b>Age</b>	21-25	0	13	13	0	26
		0.0%	50.0%	50.0%	0.0%	100.0%
	26-30	0	6	28	11	45
		0.0%	13.3%	62.2%	24.4%	100.0%
	31-35	1	2	23	26	52
		1.9%	3.8%	44.2%	50.0%	100.0%
	36-40	0	1	10	24	35
		0.0%	2.9%	28.6%	68.6%	100.0%
	41-45	0	0	10	21	31
		0.0%	0.0%	32.3%	67.7%	100.0%
	46-50	0	1	1	11	13
		0.0%	7.7%	7.7%	84.6%	100.0%
	51+	0	1	0	2	3
		0.0%	33.3%	0.0%	66.7%	100.0%
<b>Total</b>		<b>1</b>	<b>24</b>	<b>85</b>	<b>95</b>	<b>205</b>
		<b>0.5%</b>	<b>11.7%</b>	<b>41.5%</b>	<b>46.3%</b>	<b>100.0%</b>

**Source:** Field data (2014)

Table 5.7 above shows that the age range of 41-45 years had 31 respondents and they were divided between two postgraduate programmes namely, 21 (67.7%) registered for a doctoral and 10 (32.3%) registered for a masters. The age range of 46-50 years had 13 respondents making up the largest group, 11 (84.6%) were registered for a doctoral degree while one (7.7%) was registered for masters and honours respectively. Three respondents were 51 years and above, two of which (66.7%) were registered for a doctoral degree and one (33.3%) was registered for an honours.



Thus, it can be seen that the largest number of students registered for a doctoral degree were in the age group 31-35 (26 students), closely followed by those in the age group 36-40 (24 students). The largest number of masters' students was in the age group 26-30 years (28 students). The largest number of students registered for honours were in the age group 21-25 (13 students). Older students thus tended to be registered for doctoral degrees.

### **5.2.8 Types of registration**

International postgraduate students who participated in the study were either full-time students or part-time students. Of the 205 respondents, the majority of 197 (96.1%) were registered as full-time postgraduate students and a minority of eight (3.9%) were enrolled on a part-time basis.

### **5.2.9 Previous degree at host university**

Respondents indicated where they had obtained their previous degree. Of the 205 respondents, more than half, 116 (56.6%) had obtained their previous degree at the current university in which they were enrolled, and 89 (44.4%) international postgraduate students were new to their present host university.

### **5.2.10 Country where previous degree obtained**

Respondents who did not obtain their previous degree at the surveyed universities indicated the country in which they studied before enrolling at the present host university. Table 5.8 below indicates these different countries including South Africa and the other African countries.

**Table 5.8: Country previous degree obtained**

**N=89**

<b>Country of previous degree</b>	<b>Frequency</b>	<b>Percent</b>
Nigeria	36	40.4
SADC	20	22.5
Other African countries	16	18.0
South Africa	12	13.5
Outside Africa	3	3.4
No answer	2	2.2
<b>Total</b>	<b>89</b>	<b>100.0</b>

**Source:** Field data (2014)

South Africa is a member of the Southern African Development Community (SADC) and South Africa was thus within these countries of study. However South Africa was presented separately for the purpose of gaining a clear picture of whether surveyed students were familiar with the new environment at the present universities. Table 5.8 above shows that of the 89 respondents, the majority, 36 (40.4%) respondents, mentioned Nigeria as the prior country of study followed by SADC (excluding South Africa because it was the host country) for 20 (22.5%) respondents and South Africa for 12 (13.5%) respondents. Three (3.4%) respondents studied in countries from outside Africa including France, Japan and Malaysia. The rest of the African countries had 16 (18%) respondents. Two (2.2%) respondents did not provide the name of the country of the university previously attended.

Of the 20 SADC respondents, Zimbabwe had seven (7.9%) respondents, Tanzania had five (5.6%), Botswana had two (2.2%), Lesotho had two (2.2%), Democratic Republic of Congo (DRC) also had two (2.2%), while Malawi and Swaziland had one (1.1%) respondent each. The rest of the African countries had hosted 16 students of which Kenya had six (6.7%) and Uganda had four (4.5%), Ghana had two (2.2%), while four countries each had one (1.1%) student each. These countries included Burundi, Ethiopia, Rwanda and Sierra Leone.

### **5.2.11 Place of accommodation**

Respondents were asked to include the type of accommodation that they were staying in during their current study period at the surveyed universities. Of the 205 respondents, the majority of 119 (58%) respondents were staying off-campus, while university residences accommodated 86 (42%) respondents.

### **5.2.12 Applications for university residence**

Respondents were asked whether they had applied for university residence. Of the 205 respondents, 96 (46.8%) had applied for university residence, while 109 (53.2%) did not apply for accommodation in residence.

### **5.2.13 Reasons for not being accommodated in a university residence**

Of the 96 respondents who applied for residence, 86 (89.6%) were accommodated in a university residence, and 10 (10.4%) were not accommodated. Question 14 asked the respondents to specify the reasons for not obtaining residence accommodation which they had applied for. Of the 10 respondents to this question, seven (70%) provided the following reasons: limited number of rooms, (three, 30%); application was received too late (two, 20%); student applied on time but did not receive confirmation; and student decided to stay off-campus because allocated room was in a bad condition (one, 10%). Three (30%) did not provide a reason why they were not given accommodation in a residence.

### **5.2.14 Main home language spoken**

This section presents the home language spoken by the surveyed international postgraduate students. Some 34 home languages were spoken by the respondents. The most common home languages were Yoruba, Shona and Kiswahili respectively. Table 5.9 below indicates that out of 205 respondents, three main home languages are spoken by Nigerian respondents: 49 (23.9%), included Yoruba 33(16.1), Igbo nine (4.4%), and Hausa seven (3.4%). Two home languages

were also spoken by a large number of Zimbabweans and these were Shona 25 (12.2%) and Ndebele 11 (5.4%). Kiswahili was also mentioned by 23 (11.2%) students as the home language of international students from the East African region, especially Tanzania and Kenya. Kirundi was mentioned by nine (4.4%) students from Burundi, and Sesotho was mentioned by eight (3.9%) students from Lesotho. Chichewa was mentioned by nine (4.4%) students from Malawi, while Bemba was mentioned by seven (3.4%) students from Zambia. French was mentioned by six (2.9%) students from DRC, and Luganda was mentioned by five (2.4%) students from Uganda. It was important to note that three home languages were highlighted by the same number of students respectively, Amharic had four (2%) from Ethiopia, Kinyarwanda had four (2%) from Rwanda, and Kikuyu had four (2%) from Kenya.

Table 5.9 above also shows ten home languages that formed the 'other' home languages category. Each home language was mentioned by one respondent each respectively. It was important to provide the countries where these 'other' home languages were spoken:

- Nigeria: Annang, Idoma, and Ukuani, three (1.5%)
- Botswana: Setswa, one (0.5%)
- Cameroon: Ngemba, one (0.5%);
- Ghana: Iwe, one (0.5%);
- Kenya: Bukusu, one (0.5%);
- Sierra Leone: Krio, one (0.5%);
- Sudan: Arabic, one (0.5%); and
- Uganda: Kinyankore, one (0.5%).

**Table 5.9: Main home language****N=205**

<b>Language</b>	<b>Frequency</b>	<b>Percent</b>
Yoruba	33	16.1
Shona	25	12.2
Kiswahili	23	11.2
Chichewa	12	5.9
Ndebele	11	5.4
Igbo	9	4.4
Kirundi	9	4.4
Sesotho	8	3.9
Bemba	7	3.4
Hausa	7	3.4
SiSwati	7	3.4
French	6	2.9
Luganda	5	2.4
Amharic	4	2.0
Kikuyu	4	2.0
Kinyarwanda	4	2.0
Igala	3	1.5
Lingala	3	1.5
Nyanja	3	1.5
Portuguese	3	1.5
Urhobo	3	1.5
Ijaw	2	1.0
Oshiwambo	2	1.0
Waali	2	1.0
Other languages	10	4.9
<b>Total</b>	<b>205</b>	<b>100.0</b>

**Source:** Field data (2014)

### 5.2.15 Other languages spoken by respondents

Question 16, an open-ended question, asked respondents to indicate other official languages in addition to the main home languages spoken. English was not included in this section. The main reason for this is that the next section below covers English but also English was a medium of instruction at the host universities. Of the 65 respondents, 24 (36.9%) mentioned French while 19 (29.2%) indicated Kiswahili. It was important to consider that some respondents, 16 (24.6%) indicated that they could speak IsiZulu (local language) predominantly spoken in KwaZulu-Natal (where the study took place). IsiZulu was specifically indicated in this section because international students who could not understand IsiZulu reported it as a negative factor hindering communication (see below). German and Portuguese were mentioned by the same number of three (4.6%) students respectively.

### 5.2.16 English language proficiency problems

Of the 205 respondents, 170 (82.9%) did not experience English as a problem, while 35 (17.1%) indicated that they had experienced some English proficiency problems. Question 18 was an open-ended question that asked respondents to indicate the main English language proficiency problems they experienced during the course of their current academic studies. Respondents provided multiple responses in Table 5.10 below.

**Table 5.10: English language problems**

N=35

English language problems	Frequency	Percent
Writing	27	77.1
Speaking/communicating	24	68.6
Listening/understanding	19	54.3
Reading	15	42.9

(\*Multiple responses)

Source: Field data (2014)

Table 5.10 above shows that of the 35 respondents to this question, a majority of 27 (77.1%) indicated problems with written English experienced in proposal and dissertation writing. Twenty four (68.6%) reported problems of speaking and communicating in English with lecturers/supervisors and colleagues. Nineteen (54.3%) mentioned listening to and understanding English as a problem and 15 (42.9%) respondents indicated reading English academic material for research purposes as problematic. It was important to outline some of the detail around key English language problems reported by respondents and these included:

Respondents who had attended the English course from the Language Centre claimed that the payment for the English course was very expensive. Fluency in the English language was compulsory in order to perform academically. English language competency was necessary not only for research writing, but also for proper communication with lecturers in the classroom and consultation with supervisors. Some respondents highlighted certain arguments such as a doctoral student who reported that “academic writing part was a challenge, but it became fine after the support from the Language Centre”. Another student noted that there were some difficulties with English until he had attended the English class at the Language Centre located at the university.

Honours and some masters’ respondents acknowledged that they got lost in conversation when their colleagues (local students) started mixing English and IsiZulu during group discussions. Consequently these respondents argued that the combination of these two languages limited their ability to effectively contribute ideas and appropriately debate with group members. On the other hand, a doctoral student in History highlighted that “good number of materials related to my research are written in Afrikaans and IsiZulu languages”.

Respondents explained that generally some staff members found in university offices did not want to speak English when a student was looking for help from these offices. This situation had repetitively occurred when international students were black and service providers would not believe that black students were not able to communicate in IsiZulu. Therefore, students had to first explain themselves in order to be assisted by communicating in English. Some specific

responses were the following: a Masters student underlined that the mixture of language could complicate communication and made it very difficult to interact with people around the campus. Another Masters student noted that “sometime they add their local language when communicating”, while another student maintained that university meetings were dominantly conducted in IsiZulu. A student respondent in Education indicated that in some respects, it seemed like there was a requirement to speak IsiZulu and English if international students wanted to work with local people, for example, high school teachers and learners when doing a teaching practical. Another student added that the knowledge of IsiZulu and English should also assist international students when conducting research in the field with people that have grown up in local villages.

It was basically found that reading and writing problems were interlinked based on opinions gathered from respondents who had experienced problems with English. Some respondents included the following opinions: that reading and writing correctly in English at the university initially seemed to be easy but the truth was that it required carrying a dictionary most of the time in order to understand English grammar and vocabulary. A doctoral student argued that knowledge of grammar is crucial for good writing of a dissertation. One respondent mentioned that a computer word processing programme could also assist to check spelling of words and synonyms in order to use the right English terms in the correct context. A doctoral student argued that when reading “it takes more time to understand that if I would have done it in my neat language”, while an honours student noted that “some lecturers were not pleased by the way I stressed my assignment. They argued that the style of my writing is not philosophical”. English language problems were more associated with English listening and understanding problems. An honours respondent underlined that students might feel scared of making mistakes when speaking English and sometimes audiences would not receive the exact message because of inappropriate pronunciation of words and terminology used. A doctoral respondent noted that sometimes the speaker is very fast when speaking and it becomes so difficult to listen and understand especially based on different English accents that people may have when they are communicating. Particular responses included: (respondent) S88 was a doctoral respondent and discussed that “our speaking modes are different because in West Africa we speak with high pitch tone and fast with emotive stance”. Respondent S113 was a doctoral respondent and



reported that “some white lecturers feel I do not know how to write English”. S29 indicated that “the accent of other lecturers hindered my understanding of the lecture”. S61 expressed that “my expression is not spontaneously, it takes time to find correct words”. S57 argued that it was difficult to articulate some English words.

### 5.2.17 Solutions to English language proficiency problems

Question 19 sought to determine whether international postgraduate students who experienced English language difficulties were doing anything to resolve such problems (language barriers). All the respondents who reported English language problems (Table 5.10 above), 35 (100%) students answered Question 19 and mentioned different solutions to problems with the English language as indicated in Table 5.11 below.

**Table 5.11: Solutions to English language problems**

N=35

<b>Solutions to language problems</b>	<b>Frequency</b>	<b>Percent</b>
Attending Language Centre/school	13	37.1
Using dictionaries and encyclopaedias	9	25.7
Writing skills workshop/seminar	7	20.0
Checking grammar and improving spelling	7	20.0
Consultation with supervisors and lecturers	7	20.0
Communication with colleagues and friends	6	17.1
Practicing reading skills during spare time	4	11.4
Google translation and searching synonyms	4	11.4
Following radio and TV news/shows	4	11.4
Watching movies and listening to music	3	8.6
Asking people to repeat sentence or words	3	8.6
Interacting on social networks	3	8.6
Paying a proof reader before submission	1	2.9

(\*Multiple responses received)

Source: Field data (2014)

Table 5.11 above shows that of the 35 respondents, attending the English Language Centre/School was the main solution applied by the majority 13 (37.1%) respondents. This solution was followed by using reference collection materials including dictionaries and encyclopaedias by nine (25.7%) respondents. Three measures received equal responses such as writing skills workshop/seminar by seven (20%) respondents, checking grammar and improving spelling by seven (20%), and regular consultation with supervisors and lecturers by seven (20%) respondents. Speaking English when communicating with colleagues/friends reported by six (17.1%) respondents.

Table 5.11 also shows that three solutions were mentioned by the same number of respondents and these included following radio and TV news/shows by four (11.4%), Google translation and searching synonyms of the words by four (11.4%), and practicing reading skills during spare time by four (11.4%) respondents. The other three solutions that were mentioned by the same number of three (8.6%) respondents for each solution respectively included watching movies and listening to music, asking people to repeat sentences, and interaction on social networks. The least mentioned solution was payment for proof reading services before submission of academic work by one (2.9%) respondent.

## **Section 2: Information needs and information seeking behaviour**

This section discusses the questionnaire's results regarding the information needs and information seeking behaviour of student respondents which were covered by subsection A with academic needs and subsection B with personal needs.

### **5.3 Information needs and information seeking behaviour of international postgraduate students**

It was important to understand the information needs of international postgraduate students before describing their information seeking behaviour. The study systematically reviewed related literature in Chapter Three. Particularly, Butcher and McGrath (2004: 544-546) agreed that international students have academic and personal information needs when they are

studying at host universities (section 3.2.3). As expected, respondents in the current study expressed both academic and personal information needs. This section provides data relating to the academic information needs of students and their information seeking behaviour involving multiple sources of information. This section discusses the problems experienced by respondents when seeking information and explains the use of library resources for academic purposes. This section also discusses the personal information needs of respondents, sources consulted and usefulness of information obtained from sources used in order to meet personal information needs.

### **Subsection A: Academic information needs**

This is a subsection of section 2 and it discusses data in relation to academic needs which were covered by questions 21 to 32.

#### **5.3.1 Information needs related to academic studies**

Subsection A represents the information seeking patterns related to academic needs of respondents. Respondents could provide multiple answers. Academic information needs are depicted in Table 5.12 below.

A large number of surveyed students were either registered for masters or doctoral degrees, while smaller groups were registered for honours (Table 5.7 above). As expected, the information needs of international postgraduate students were predominantly based on their academic needs namely research projects. This general picture is depicted in Table 5.12 below. In terms of academic information needs, Table 5.12 shows that a majority of 160 (78%) indicated an information need based on writing their theses/dissertations, followed by 157 (76.6%) students who indicated information resources. Information needs related to the registration process were reported by a majority of 151 (73.7%) students.

**Table 5.12: Academic information needs**

**N=205**

<b>Academic needs</b>	<b>Yes</b>		<b>No</b>	
	<b>Frequency</b>	<b>Percent</b>	<b>Frequency</b>	<b>Percent</b>
Writing theses/dissertations	160	78.0	45	22.0
Research resources	157	76.6	48	23.4
Registration process	151	73.7	54	26.3
Research topic	127	62.0	78	38.0
Financing studies	126	61.5	79	38.5
Information literacy skills	90	43.9	115	56.1
Issues around lectures	64	31.2	141	68.8
English language	53	25.9	152	74.1
Tests and assignments	52	25.4	153	74.6

(\*Multiple responses received)

**Source:** Field data (2014)

Table 5.12 also indicates that two needs received almost equal responses including information needs related to finding an appropriate and researchable research topic by 127 (62%) respondents and financing studies by 126 (61.5%) students. The other needs were based on different educational backgrounds, different levels of ICT knowledge, English language competency, and familiarity with new teaching and learning systems applied at the host universities. These four needs included information literacy skills by 90 (43.9%), issues around lectures by 64 (31.2%), English language as a medium of instruction in all three surveyed universities by 53 (25.9%), and information needs related to tests and assignments by 52 (25.4%) students. Respondents were also able to identify other academic needs and one respondent noted that drafting a research proposal represented a basic academic need for any postgraduate student.

### 5.3.2 Sources used by respondents to meet academic needs

Question 21 asked respondents to describe the sources they used to satisfy their academic needs. Wilson (1999: 251) argued that when people are seeking information services, they intend to consult multiple sources including formal information systems and other people such as colleagues and friends found in the surrounding environment. The study revealed that the respondents consulted formal systems, predominantly university support units and people such as lecturers/supervisors and colleagues. Sources consulted for academic needs are depicted in Table 5.13 below.

**Table 5.13: Main sources for meeting academic needs**

**N=205**

<b>Sources consulted</b>	<b>Used (Yes)</b>		<b>Not used (NA)</b>	
	<b>Frequency</b>	<b>Percent</b>	<b>Frequency</b>	<b>Percent</b>
Lecturers/Supervisors	186	90.7	19	9.3
Internet use	177	86.3	28	13.7
International Student Office (ISO)	171	83.4	34	16.6
School/Faculty Office	170	82.9	35	17.1
Colleagues	164	80.0	41	20.0
Librarians	160	78.0	45	22.0
Computer services	133	64.9	72	35.1
Medical Aid Insurance Companies	121	59.0	84	41.0
Home Affairs Department	103	50.2	102	49.8
Student Funding Centre	87	42.4	118	57.6
Student Housing Department	81	39.5	124	60.5
Embassy Office	67	32.7	138	67.3
Student Counselling Centre	49	23.9	156	76.1
International Student Associations	41	20.0	164	80.0
Risk Management/Security Services	40	19.5	165	80.5
Student Representative Council (SRC)	33	16.1	172	83.9

(\*Multiple responses received)

Source: Field data (2014)

The table 5.13 above shows that the top four information sources consulted by respondents with the aim of meeting their academic needs included: consulting lecturers and supervisors by 186 (90.7%), using Internet facilities by 177 (86.3%), consulting the International Student Office (ISO) by 171 (83.4%), and assistance from the School/Faculty Office by 170 (82.9%) respondents. Two sources of information that received almost equal responses were communicating with colleagues and friends by 164 (80%) and consulting librarians by 160 (78%) respondents.

Academic tasks are certainly accomplished in the current technology era with the use of computer services for class presentations or when writing research projects. Using computer services to meet academic needs was mentioned by 133 (64.9%) respondents. Two external service providers received almost equal scores were Medical Aid Insurance companies by 121 (59%) and the Home Affairs Department by 103 (50.2%) respondents. It is important to note that international students cannot study at a local university without a study visa and medical aid insurance. So even though these may appear as personal needs they are in fact academic needs in the context of this study.

Table 5.13 above further shows that three service providers were also reported by the same number of respondents as being sources of information and these were the Student Funding Centre by 87 (42.4%), Student Housing Department by 81 (39.5%), and the Embassy Office by 67 (32.7%) respondents. The least used sources of information consulted by respondents which counted for less than 25% each per source were the Student Counselling Centre with 49 (23.9%), International Students Associations/ Forum with 41 (20%), Risk Management/Security Services with 40 (19.5%), and Student Representative Council (SRC) with 33 (16.1%) respondents.

### **5.3.3 Successful use of sources**

Question 23 asked surveyed students whether they were successful with sources consulted to meet their academic needs. Respondents had used multiple sources depending on the nature of the academic task. Table 5.14 below indicates that the total number of respondents who

reported the successful/non successful use of each source consulted. Use was different from one source to another and multiple responses were received. It was important to include the last column, total number of responses, in Table 5.14 below in order to represent the total responses (N) for every source used by respondents. The details are presented in Table 5.14 in descending order from the highest to the lowest percent (for successful use) in order to be able to compare percentages and not the absolute number of respondents.

**Table 5.14: Successful use of sources by surveyed students**

Sources used	Success with sources used		Not successful with sources used		Total responses (N)	
	Freq.	Percent	Freq.	Percent	Freq.	Percent
Lecturers/Supervisors	178	95.7	8	4.3	<b>186</b>	<b>100</b>
Librarians	144	90.0	16	10.0	<b>160</b>	<b>100</b>
Colleagues	147	89.6	17	10.4	<b>164</b>	<b>100</b>
School/Faculty Office	151	88.8	19	11.2	<b>170</b>	<b>100</b>
Internet use	157	88.7	20	11.3	<b>177</b>	<b>100</b>
International Student Office (ISO)	140	81.9	31	18.1	<b>171</b>	<b>100</b>
Computer services	107	80.5	26	19.5	<b>133</b>	<b>100</b>
Home Affairs Department	79	76.7	24	23.3	<b>103</b>	<b>100</b>
Student Housing Department	61	75.3	20	24.7	<b>81</b>	<b>100</b>
Embassy Office	48	71.6	19	28.4	<b>67</b>	<b>100</b>
Risk Management/Security Services	28	70.0	12	30.0	<b>40</b>	<b>100</b>
Medical Aid Insurance Companies	84	69.4	37	30.6	<b>121</b>	<b>100</b>
International Student Associations	27	65.9	14	34.1	<b>41</b>	<b>100</b>
Student Funding Centre	48	55.2	39	44.8	<b>87</b>	<b>100</b>
Student Counselling Centre	25	51.0	24	49.0	<b>49</b>	<b>100</b>
SRC	12	36.4	21	63.6	<b>33</b>	<b>100</b>

**Source:** Field data (2014)

Table 5.14 below shows that the top two sources which were the most successful that respondents consulted for academic purposes were lecturers and supervisors by 178 (95.7%) respondents, followed by consulting academic librarians by 144 (90%) respondents. These were followed by three other sources successfully used by respondents, consulting colleagues by 147 (89.6%), assistance from the School/Faculty Office by 151 (88.8%), and using Internet facilities by 157 (88.8%) respondents. Four sources received more or less equal levels of satisfaction as highlighted by respondents and these were the ISO by 140 (81.9%), computer services rendered to surveyed respondents by 107 (80.5%), Home Affairs Department by 79 (76.7%), and Student Housing Department by 61 (75.3%).

Four other sources were considered successful for between 72% and 65% of the respondents. These were the Embassy Office with 48 (71.6%), Risk Management/Security Services rendered to 28 (70%) respondents, Health cover services offered to 84 (69.4%) respondents and International Student Associations by 27 (65.9%). The least three successful sources were Student Funding Centre with 48 (55.2%), Student Counselling Centre with 25 (51%), and Student Representative Council (SRC) with 12 (36.4%) respondents.

### **5.3.4 Main problems experienced with sources used**

International students were asked to elaborate on the problems experienced when consulting different sources of information for academic purposes. During the information seeking process, students might face some challenges. The findings of survey also show that some of the respondents chose to provide more than one response for a particular source used. This led to multiple responses.

#### **5.3.4.1 International Student Office (ISO) problems**

Thirty three respondents mentioned problems experienced when consulting the ISO to meet their academic information needs. Of the 33 respondents, the majority indicated three main problems and these included lack of awareness of ISO services by 13 (39.4%), lack of collaboration between the ISOs and Home Affairs Department by six (18.2%) and the



expensive international levy by five (15.2%). The respondents also listed the following problems:

- Shortage of ISO staff members to serve international students, four (12.1%);
- Lack of transport facilities from airport or bus station to campus on arrival date for new international students, four (12.1%);
- Lack of clear policies regarding ISO service delivery, four (12.1%);
- Lack of assistance when applying for health cover, four (12.1%);
- Few opening days of ISO at Edgewood campus (Tuesday and Thursday), four (12.1%);
- Communication gap between ISO and Faculty Office, three (9.1%);
- Difficulty in obtaining international clearance, three (9.1%);
- Insufficient co-operation with other internal units, two (6.1%);
- Poor planning and executing of orientation programme, two (6.1%);
- Ineffective communication channels used to inform students, two (6.1%); and
- Poor record keeping of student information for future retrieval and use, one (3%).

#### **5.3.4.2 School/Faculty Office problems**

Twenty one respondents mentioned problems experienced when consulting the School/Faculty Office to meet their academic information needs. Of the 21 respondents, the majority (10, 47.6%) mentioned three major problems including shortage of staff in the office to support the large number of international students, especially during the registration process, ineffective co-operation with Home Affairs Department regarding a study permit (seven, 33.3%), and lack of support to apply timeously for the South Africa Qualification Authority (SAQA) accreditation by five (23.8%) respondents. The following problems were also highlighted by the respondents:

- Lack of temporary student card to access university facilities, three (14.3%);
- Provision of insufficient information packages (lack of details), three (14.3%);
- Delayed correspondences sent by administrators to international students (especially via post office), three (14.3%);
- Recruiting Graduate Assistants (GA) to assist new international students, three (14.3%);
- Inadequate communication by administrators/officers, two (9.5%);

- Lack of involvement of international students in orientation activities, two (9.5%);
- Lack of transparency within mentoring and tutoring programmes, two (9.5%);
- Lack of funding support to attend local conferences, two (9.5%);
- Poor assistance with regard to access to internship services, two (9.5%);
- Late communication of library literacy training for graduate students, two (9.5%); and
- Lack of administrators with bilingual abilities, one (4.8%).

#### **5.3.4.3 Problems with consulting academic librarians**

Nineteen respondents mentioned problems experienced when consulting librarians. Of the 19 respondents, three major problems included lack of awareness of available library services to support academic studies by nine (47.4%) respondents, independent library searching (self-searching) by eight (42.1%) respondents, and shortage of library staff members by six (31.6%) respondents. The respondents also mentioned the following problems:

- Difficult in identifying library users from librarians, four (21.1%);
- Shortage of time allocated to library user training/instruction, four (21.1%);
- Training a large group of students from different disciplines at once, three (15.8%)
- Ineffective library marketing strategies, three (15.8%);
- Slow circulation (issue desk) services, three (15.8%);
- Poor planning of library orientation, two (10.5%);
- Inadequate collaboration between librarians and academic staff, two (10.5%); and
- Unclear library guides used within library building, one (5.3%).

#### **5.3.4.4 Problems with consulting lecturers/supervisors**

Twenty eight respondents indicated problems experienced when consulting lecturers/supervisors to meet their academic information needs. Of the 28 respondents, the majority mentioned two main problems and these were different educational backgrounds by 16 (57.1%) respondents and high levels of English spoken by lecturers/supervisors by seven (25%) respondents. The respondents also mentioned the following problems:

- Many graduate students allocated to one supervisor and limited consultation provided, four (14.3%);
- Locating and selecting relevant academic resources, four (14.3%);
- Writing research proposal and attending classes at the same time, three (10.7%);
- Different research writing guidelines based on each discipline, three (10.7%);
- Working under pressure to meet due date for submissions, three (10.7%);
- Delayed feedback of research work submitted to supervisor, two (7.1%);
- Too much effort in finding a researchable topic, two (7.1%);
- Lack of confidence when presenting work in seminars, two (7.1%);
- Complexity of dealing with plagiarism related issues, two (7.1%);
- Feeling uncomfortable to ask supervisor common questions, two (7.1%);
- Multiple referencing styles from different disciplines, one (3.6%); and
- Lack of PowerPoint presentation skills, one (3.6%).

#### **5.3.4.5 Problems with consulting colleagues and friends**

Twenty three respondents mentioned problems experienced when consulting colleagues/friends to meet their academic information needs. Of the 23 respondents, three major problems included the difficulty with creating friendships with some South African students because of their xenophobic attitudes towards international students by 12 (52.2%) respondents, colleagues were not well informed and they could not provide adequate information services by seven (30.4%) respondents, and fellow postgraduate students were also too busy to assist because of their heavy academic workload by five (21.7%) respondents. The respondents also mentioned the following problems:

- Limited special events around campus to promote interaction between local and international students, four (17.4%)
- Different economic circumstances regarding funding support, three (13%);
- Students felt intimidated and isolated by colleagues, three (13%);
- Multiple social responsibilities toward families at home, three (13%);
- Students were not willing to share resources for research purposes, three (13%);

- High individualistic culture versus teamwork, one (4.3%); and
- Lack of trust or faith in colleagues based on previous disappointment, one (4.3%);

#### **5.3.4.6 Student Funding Office problems**

Twenty six respondents mentioned problems experienced when consulting the Student Funding Centre to meet their academic information needs. Of the 26 respondents, the majority indicated three main problems of limited funding opportunities by 14 (53.8%), annual increase of international levy by eleven (42.3%), and high tuition fees charged to international students by six (23.1%). The respondents also listed the following problems:

- Slow financial clearance system hinders registration process, three (11.5%);
- Inadequate communication about available bursary or scholarship support, three (11.5%);
- Poor financial recording system reflecting outstanding fees for students, two (7.7%); and
- Some staff members were not friendly and they did not offer a satisfactory service to students, two (7.7%).

#### **5.3.4.7 Student Counselling Centre problems**

Thirteen respondents indicated problems experienced when consulting the Student Counselling Centre. Of the 13 respondents, the majority indicated two main problems of lack of familiarity with counselling support/services by eight (61.5%) respondents, and opening hours since office working hours were the same as study hours (time schedule) by four (30.8%). The respondents also underlined the following problems:

- Difficulty with sharing personal issues with other people, three (23.1%);
- Code switching of English and IsiZulu languages by officers, three (23.1%); and
- Shortage of staff, two (15.4%);

#### **5.3.4.8 Student Housing Office problems**

Twenty two respondents mentioned problems experienced when consulting the Student Housing Office. From the 22 respondents, two main problems were highlighted: limited capacity of university residences to accommodate many students by 17 (77.3%) respondents, and insufficient rooms reserved for international students by seven (31.8%). The respondents also indicated the following problems:

- Long waiting list to get a room in residence, three (13.6%);
- Lack of transit rooms for new international students, three (13.6%);
- Poor assistance from Resident Administrators (RA) after working hours, two (9.1%);
- Issue related to confirmation of room for returning international students, two (9.1%);
- Lack of cleanliness of residence rooms, two (9.1%);
- Lack of measures to assist international students during July vacation period, two (9.1%);
- Lack of reinforcement of residence rules (drinking alcohol), two (9.1%); and
- Safety of students' property (laptop) in the rooms when attending classes, one (4.5%).

#### **5.3.4.9 Risk Management/Security service problems**

Thirteen respondents mentioned problems experienced when consulting the Risk Management/Security services. The 13 respondents highlighted two main problems namely staff members were not friendly and could not provide effective services by nine (69.2%) respondents, and waiting in long queues to obtain student cards to access university facilities by six (46.2%). The respondents also indicated the following problems:

- Delays in responding to emergency cases including theft, four (30.8%);
- Student card access could expire anytime during academic term, two (15.4%);
- Confusion based on the fact that all black students are presumed to be able to speak IsiZulu, two (15.4%);
- Inadequate security equipment, two (15.4%); and
- Lack of escort service for students staying off-campus, two (15.4%).

#### **5.3.4.10 International Student Association problems**

Eleven respondents mentioned problems experienced when consulting their student associations or clubs. Of the 11 respondents, the majority highlighted one main problem and this was failure to offer academic support to club members by eight (72.7 %) respondents. Furthermore, respondents provided the following problems:

- Use of inadequate communication channels (often verbal), four (36.4%).
- Lack of stable leadership to ensure commitment towards members, two (48.2%);
- Poor strategic plans to match that of university, two (18.2%);
- Inadequate support of student forums by university management, two (18.2%); and
- Lack of participation at official meetings or decision making process, one (9.1%).

#### **5.3.4.11 Student Representative Council (SRC) problems**

Thirteen respondents mentioned problems experienced when consulting the SRC to meet academic information needs. Of the 13 respondents, the majority highlighted two main problems which were good support offered to local students when compared to international students, especially regarding appeals for late registration by nine (69.2%), and initiation of unnecessary student strikes for individual local students' interests (leadership committee) by five (38.5%). Other problems included:

- Lack of accountability for poor service delivery, three (23.1%);
- Lack of regular meetings to better understanding student problems, two (15.4%);
- Inadequate use of financial resources periodically allocated to SRC, two (15.4%); and
- Lack of collaboration between the ISO and other internal units, two (15.4%).

#### **5.3.4.12 Home Affairs Department problems**

Nineteen respondents mentioned problems experienced when consulting the Home Affairs Department. Of the 19 respondents, the majority highlighted two main problems of lengthy delays in processing applications for a study permit by 11 (57.9%) respondents, and

consistently increasing costs for study permit extensions by six (31.6%). They also noted the following problems:

- Incomplete information appearing on the forms given to students, four (21.1%);
- Delayed feedback in terms of international students' queries, two (10.5%); and
- Lack of supportive or friendly staff to assist international students, two (10.5%).

#### **5.3.4.13 Embassy Office problems**

Eleven respondents mentioned problems experienced when consulting the Embassy Office. The main problem was lengthy delays in processing applications by seven (63.6%) respondents.

Other problems included:

- Many formal protocols and procedures to be followed, four (36.4%);
- Long distance to travel to get to the Embassy Office, three (27.3%);
- High deposit fees charged by Embassy Office were refundable only after graduating and returning to home country, two (18.2%); and
- Poor customer care, two (18.2%).

#### **5.3.4.14. Medical health insurance problems**

Twenty four respondents mentioned problems experienced when using the health cover services. Of the 24 respondents, the majority highlighted three main problems of lack of open competition for health cover services (regarded as a monopoly service) by 14 (58.3%) respondents, high costly health cover premiums by eight (33.3%), and lack of commitment to meet or satisfy students' health care needs by six (25%). The respondents also indicated the following problems:

- Only minor health services covered by health insurance company, four (16.7%);
- Lack of periodical meetings with international students, three (12.5%);
- Long process for obtaining permission to acquire medical assistance, three (12.5%);
- Lack of refunding of pre-paid medication in emergency cases, three (12.5%); and
- Lengthy delays in securing medical aid card, one (4.2%).

#### **5.3.4.15 Internet use problems**

Twenty eight respondents mentioned problems experienced when using Internet facilities to satisfy their academic information needs. The majority of respondents mentioned the three main problems of slow Internet connection around campus by 15 (53.6%) respondents, limited availability of off-campus access to Internet by nine (32.1%), and inadequate Internet training by five (8.9%). The respondents also provided the following problems:

- Information overload from online sources, four (17.9%)
- Slow Internet connection in library buildings, three (10.7%)
- Limited critical skills to identify relevant Internet sources, three (10.7%);
- Requirements of Internet expertise to use Internet facilities, three (10.7%);
- Shortage of information technology support from IT staff, three (10.7%);
- Searching by trial and error, three (10.7%);
- Necessity of having access to computer with network access, three (10.7%);
- Lack of authoritative, authentic, and reliable online sources, three (10.7%);
- Lack of wireless connections, two (7.1%);
- Time consuming to browse plentiful electronic resources, two (7.1%)
- Too much irrelevant information from Internet, two (7.1%); and
- Receiving emails with viruses affecting personal laptops, one (3.6%).

#### **5.3.4.16 Computer service problems**

Twenty one respondents mentioned problems experienced when using computer services to satisfy their academic information needs. Of the 21 respondents, the majority highlighted two main problems and these were lengthy process of logging into computers in the LAN and libraries by eight (38.1%), and lack of advanced computer skills by six (28.6%). The respondents also listed the following problems:

- Many passwords to remember, three (14.3%);
- Few computers in the LANs for large number of students, three (14.3%);
- Many computers are not connected to printers in the LANs, three (14.3%);
- Shortage of IT staff working on help desk, three (14.3%);



- Lack of scanning services (one scanner in the LAN), three (14.3%);
- Inadequate assistance from IT staff members, three (14.3%);
- Risk of moving around with laptop at night outside the campus, two (9.5%);
- Lack of technical support during the weekend or public holidays, two (9.5%);
- Many computers in library were not functional, two (9.5%);
- Poor air-conditioning system in the LANs, two (4.1%);
- Some students watch movies and listen to music on computers in the LANs, two (9.5%);
- Power cuts in library and LANs with no generators, two (9.5%); and
- One printer in library and it was often out of order, one (4.8%);

### **5.3.5 Use of library resources for academic studies**

This section describes the background information regarding the use of library resources by respondents to meet their academic information needs, it elaborates on library resources used by respondents, it identifies the main sources consulted to become aware of these library resources and it provides the rating level of usefulness of both print and electronic resources. It also indicates the helpfulness of subject librarians and lecturers/supervisors in meeting the information needs. This section also highlights the problems experienced by international postgraduate students when using library resources for academic purposes.

#### **5.3.5.1 Use of library resources by students**

Question 25 sought to establish whether international postgraduate students used library resources. The study established that all 205 surveyed students used both print and electronic resources available at the university libraries for their academic information needs.

### **5.3.5.2 Main library resources used by respondents**

Question 26 asked respondents to list the main library resources used to satisfy their academic information needs. It was found that there was no major difference between the use of electronic and print resources by respondents. Results are depicted in Table 5.15 below.

Table 5.15 below shows that the two most frequently used library resources by surveyed students involved browsing online databases by 194 (94.6%) respondents and using print materials including print books and print journals by 178 (86.8%) respondents. Theses and dissertations were reported by 151 (73.7%) respondents. Library catalogue (OPAC) and printing/photocopy services received equal responses by 138 (67.3%) respondents each. Four library resources were used by between 56% and 51% of respondents and these included short loan/academic reserves by 114 (55.6%), subject librarians by 113 (55.1%), interlibrary loan services by 107 (52.2%) and reference collections (dictionaries and encyclopaedias) by 105 (51.2%). Discussion rooms were the least used library resource by 60 (29.3%) respondents for their academic information needs.

**Table 5.15: Main library resources used for academic studies**

**N=205**

<b>Library resources</b>	<b>Yes</b>		<b>No</b>	
	<b>Frequency</b>	<b>Percent</b>	<b>Frequency</b>	<b>Percent</b>
Online databases	194	94.6	11	5.4
Print materials (books and journals)	178	86.8	27	13.2
Theses and dissertations	151	73.7	54	26.3
Library catalogue (OPAC)	138	67.3	67	32.7
Printing and photocopy	138	67.3	67	32.7
Short loan/Academic reserves	114	55.6	91	44.4
Subject Librarians	113	55.1	92	44.9
Interlibrary loan	107	52.2	98	47.8
Reference collections	105	51.2	99	48.3
Discussion rooms (availability)	60	29.3	145	70.7

(\*Multiple responses received)

**Source:** Field data (2014)

### **5.3.5.3 Sources consulted for awareness of library resources**

Question 27 asked respondents to identify sources used to become aware of library resources. Results are depicted in Table 5.16 below. The three most frequently consulted sources to become aware of available library resources were lecturers and supervisors by 148 (72.2%) respondents, communication with colleagues by 145 (70.7%), and browsing the library website by 143 (69.8%) respondents. Attending library orientation was noted by 117 (57.1%) respondents, while consulting subject librarians was mentioned by 100 (48.8%) respondents. A small number of respondents, 86 (42%) reported they used the library guides.

**Table 5.16: Sources used to be aware of library resources**

**N=205**

<b>Sources of awareness</b>	<b>Yes</b>		<b>No</b>	
	<b>Frequency</b>	<b>Percent</b>	<b>Frequency</b>	<b>Percent</b>
Lecturers/Supervisors	148	72.2	57	27.8
Colleagues	145	70.7	60	29.3
Library websites	143	69.8	62	30.2
Library orientation	117	57.1	88	42.9
Subject Librarians	100	48.8	105	51.2
Library guides	86	42	119	58

(\*Multiple responses received)

**Source:** Field data (2014)

#### **5.3.5.4 Usefulness of library print resources**

This section provides information about the usefulness of library print resources such as books, the reference collection, journals, and dissertations. Results are depicted in Table 5.17 below.

Table 5.17 indicates that out of 205 respondents who rated the usefulness of print resources, the vast majority of 186 (90.8%) respondents considered print books to be either very useful or somewhat useful. This was followed by 183 (89.2%) respondents considered print journals to be either very useful or somewhat useful. Theses/dissertations were rated very useful by 124 (60.5%) respondents, somewhat useful by 41 (20%) respondents.

**Table 5.17: Usefulness of print resources**

**N=205**

Library print resources	Very useful		Somewhat useful		Neutral		Not very useful		Not at all useful	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Books	141	68.8	45	22.0	14	6.8	3	1.5	2	1.0
Reference materials	77	37.6	56	27.3	54	26.3	13	6.3	5	2.4
Journals	153	74.6	30	14.6	13	6.3	5	2.4	4	2.0
Indexes & abstracts	69	33.7	33	16.1	52	25.4	41	20.0	10	4.9
Theses/Dissertations	124	60.5	41	20.0	32	15.6	4	2.0	4	2.0

(\*Multiple responses received)

Source: Field data (2014)

A smaller majority of 102 (49.8%) respondents rated indexes and abstracts as either very useful or somewhat useful. The biggest neutral response was to the usefulness of reference materials by 54 (26.3%) respondents, followed by indexes and abstracts by 52 (25.4%) respondents.

### **5.3.5.5 Usefulness of library electronic resources**

This section presents information about the usefulness of library electronic resources which includes the library website, OPAC, electronic books and electronic journals, and online databases. Wilson (2006: 683) argued that “electronic information resources, structured in various ways, are becoming the dominant environment within which information seeking takes place”. Results are depicted in Table 5.18 below.

**Table 5.18: Usefulness of electronic resources**

N=205

Library electronic resources	Very useful		Somewhat useful		Neutral		Not very useful		Not at all useful	
	Freq.	%	Freq.	%	Freq.	%	Freq.	%	Freq.	%
Library website	140	68.3	47	22.9	14	6.8	3	1.5	1	0.5
Library catalogue	116	56.6	47	22.9	33	16.1	6	2.9	3	1.5
E-books	107	52.2	38	18.5	39	19.0	19	9.2	2	1.0
E-journals	148	72.2	39	19.0	14	6.8	3	1.5	1	0.5
Online databases	152	74.1	37	18.0	13	6.3	2	1.0	1	0.5

(\*Multiple responses received)

Source: Field data (2014)

Table 5.18 above shows that out of 205 respondents who rated the usefulness of electronic resources, the vast majority of 189 (92.1%) respondents considered online databases as either ‘very useful’ or ‘somewhat useful’. It was followed by electronic journals and the library website as either ‘very useful’ or ‘somewhat useful’ by 187 respondents (91.2%). In this regard, a smaller majority of 145 (70.7%) respondents rated electronic books as either ‘very useful’ or ‘somewhat useful’. Electronic books received the highest rating as either ‘not useful’ or ‘not at all useful’ by 21 (10.2%) respondents.

### **5.3.5.6 Helpfulness of subject librarians for academic needs**

It was important to investigate the academic assistance offered to respondents by subject librarians. Results regarding helpfulness of subject librarians are depicted in Table 5.19 below.

**Table 5.19: Academic assistance from subject librarians**

**N=205**

<b>Helpfulness</b>	<b>Frequency</b>	<b>Percent</b>
Very helpful	97	47.3
Somewhat helpful	51	24.9
Neutral	42	20.5
Not very helpful	7	3.4
Not at all helpful	8	3.9
<b>Total</b>	<b>205</b>	<b>100.0</b>

**Source:** Field data (2014)

Table 5.19 above shows that the vast majority of 148 (72.2%) respondents indicated that subject librarians were either ‘very helpful’ or ‘somewhat helpful’. Forty two (20.5%) respondents were ‘neutral’. It was important to note that only 15 (7.3%) respondents indicated that subject librarians were either ‘not helpful’ or ‘not at all helpful’.

### **5.3.5.7 Helpfulness of lecturers and supervisors for academic needs**

It was important to highlight the academic assistance offered to respondents by lecturers and supervisors. Results regarding helpfulness of lecturers and supervisors are depicted in Table 5.20 below.

Table 5.20 shows that the vast majority of 178 (86.9%) respondents indicated lecturers/supervisors were either ‘very helpful’ or ‘somewhat helpful’. Fifteen (7.3%) respondents were ‘neutral’. A small group of 12 (5.9%) respondents indicated that lecturers/supervisors were either ‘not helpful’ or ‘not at all helpful’.

**Table 5.20: Academic assistance from lecturers and supervisors**

N=205

<b>Helpfulness</b>	<b>Frequency</b>	<b>Percent</b>
Very helpful	134	65.4
Somewhat helpful	44	21.5
Neutral	15	7.3
Not very helpful	9	4.4
Not at all helpful	3	1.5
<b>Total</b>	<b>205</b>	<b>100.0</b>

**Source:** Field data (2014)

### **5.3.6 Problems experienced by students when using library resources**

International postgraduate students experienced different problems when they used the print or electronic resources library resources for their academic information needs. Question 32, an open-ended question, asked surveyed respondents to indicate the main problems they experienced when using library resources. Respondents had experienced numerous problems that differed from one resource used to another and so multiple responses were received.

#### **5.3.6.1 Library catalogue (OPAC) problems**

Nineteen respondents mentioned problems experienced when using the OPAC for their academic studies. Of the 19 respondents, the majority indicated two main problems and these included lack of formal OPAC training by seven (36.8%) respondents, and lack of awareness of OPAC system availability by five (26.3%). The respondents also listed the following problems:

- Lack off-campus access to OPAC to identify available books in library, four (21.1%);
- Not sure about OPAC searching methods, three (15.8%);
- Large number of students attending library training class with only one librarian (without assistant) to help browse databases, three (15.8%);



- Mixture of graduate students from different disciplines, three (15.8%)
- Shortage of OPAC computers in library to search for books, two (10.5%);
- Not enough time for practising OPAC searching strategies during training session, two (10.5%); and
- Inadequate time schedule to attend the OPAC training session, two (10.5%).

### **5.3.6.2 Online database problems**

Twenty seven respondents mentioned problems experienced when browsing online databases for their academic studies. Of the 27 respondents, the majority provided two main problems and these were multiple skills needed to effectively find relevant online information by 11 (40.7%) respondents, and limited off-campus access to browse online databases by seven (25.9%). The respondents also listed the following problems:

- Slow Internet connection around campus, five (18.5%);
- Many password requirements during search process, four (14.8%)
- Many links to access the full-text, three (11.1%);
- Shortage of accurate vocabularies within specific area of research, three (11.1%);
- Some academic journals were not accessible (subscription needed), three (11.1%);
- Applying keywords depending on research topic, two (7.4%);
- Effective use of Boolean searching (And, Or, and Not), two (7.4%);
- Inadequate knowledge about computers, two (7.4%); and
- Lack of printing options for some online databases, one (3.7%).

### **5.3.6.3 E-book problems**

Eighteen respondents mentioned problems experienced when browsing e-books for their academic studies. Of the 18 respondents, the majority provided two main problems and these were that e-books were not downloadable by 10 (55.6%) respondents, and subscription fee requirements by six (33.3%). The following problems were also identified:

- Many passwords to use, five (27.8%);

- Only book review or just cover page accessible, three (16.7%);
- Lack of saving and emailing options, three (16.7%);
- Unfamiliarity with usage of electronic books, three (16.7%);
- Occasionally slow opening of pages available in pdf format, one (5.6%); and
- Hard to read available pdf pages because of small characters, one (5.6%).

#### **5.3.6.4 E-journals problems**

Twenty four respondents mentioned problems experienced when browsing electronic journals for their academic studies. Two main problems were identified by a majority of respondents and these were lack of formal training on a regular basis about searching electronic journals by nine (37.5%), and slow Internet connection and limited wireless coverage by six (25%). The respondents also listed the following problems:

- Difficulty in opening full-text and saving documents for future use, four (16.7%);
- Limited off-campus access, four (16.7%);
- Unfamiliarity with browsing e-journals, four (16.7%);
- Not easy to use advanced searching tools, three (12.5%);
- Lack of skills or knowledge for limiting search results, three (12.5%); and
- Slow speed of computers in library, three (12.5%).

#### **5.3.6.5 Print material (books/journals) problems**

Twenty nine respondents mentioned problems experienced when using print materials (books/journal) for their academic studies. Of the 29 respondents, the majority provided two main problems and these were misplaced books on shelves and hard to find books in the library by 13 (44.8%), and availability of remote access to online resources by seven (24.1%). The respondents also provided the following problems:

- Time consuming to identify books from library catalogue, yet they are not available on shelves, four (13.8%);

- Lengthy delays in waiting for books on hold (already borrowed) by other students and staff members, four (13.8%);
- Outdated print journals related to particular research interests, four (13.8%);
- Difficult to share print books because graduate students are scattered and many of them work from their own places/rooms, three (10.3%);
- Visiting physically library building was costly based on travelling fees, three (10.3%);
- Few copies of books about research methodology given the large number of graduate students, three (10.3%);
- Possibility of losing a library book and being charged a high penalty, three (10.3%); and
- Paying library fines for delayed returned library materials, two (6.9%).

#### **5.3.6.6 Theses/dissertations problems**

Twelve respondents mentioned problems experienced when using theses/dissertations for their academic studies. Of the 12 respondents, the majority provided two main problems and these included waiting a long time to find a hard copy of a dissertation in the library by eight (66.7%), and few electronic copies were accessible from the research space link on library home page by five (41.7%). The respondents also listed the following problems:

- Hard to find theses relevant to your research topic, three (25%);
- Difficulty to move around the library with heavy print version of dissertation, three (25%);
- Not allowed to check out (borrow) theses from library, three (25%); and
- Poor cleanliness of shelves in theses/dissertations section, one (8.3%).

#### **5.3.6.7 Reference collection (dictionaries and encyclopaedias) problems**

Eleven respondents mentioned problems experienced when using the reference sources (dictionaries/encyclopaedias) for their academic studies. Of the 11 respondents, the majority highlighted one central problem and this was lack of awareness of available reference sources in the library by eight (72.7%). The respondents also highlighted the following problems:

- Lack of option to borrow reference collection materials, three (27.3%);
- Limited copies of recent reference sources, three (27.3%);
- Very old sources, three (27.3%);
- Hard to use or consult without professional assistance, one (9.1%); and
- Limited language options (only English version), one (9.1%).

#### **5.3.6.8 Subject librarian problems**

Twenty one respondents mentioned problems experienced when consulting subject librarians for their academic studies. Of the 21 respondents, the majority indicated three major problems and these were lack of awareness of services offered by subject librarians by nine (42.9%) respondents, subject librarians were not available for consultation by seven (33.3%), and few librarians had ICT skills to effectively assist graduate students when searching online databases by five (23.8%). The respondents also noted the following problems:

- Graduate students were not confident enough to formulate questions to ask librarians, three (14.3%);
- Subject librarians allocated short time to help students and this led to the provision of limited explanations, three (14.3%);
- Forming a large group of many graduate students during training sessions, three (14.3%);
- Lack of regular communication between librarians and academics, three (14.3%);
- Hard to understand library terminologies used, three (14.3%);
- Lack of technical skills to teach Endnote, two (9.5%);
- Speaking of IsiZulu during consultation time, two (9.5%); and
- Lack of a subject librarian during lunch time or in the evening, one (4.8%).

#### **5.3.6.9 Short loan/academic reserve problems**

The terms 'short loan' and 'academic reserves' are used interchangeably to refer to that section of the library where items in high demand are kept and are available according to strict loan

conditions. Fifteen respondents mentioned problems experienced when using short loan/academic reserve services for academic purposes. Of the 15 respondents, the majority highlighted one main problem and this was the limited time allocated for the use of a book from Academic Reserves (only one hour) by 11 (73.3%). The respondents also noted the following problems:

- Not allowed to borrow and use short loan materials outside the library, four (26.7%)
- Shortage of computers to search available books on short loan, four (26.7%);
- Lack of access to copies recommended by supervisor, three (20%);
- Not more than one book was allowed to be used at once, three (20%);
- Lack of option to renew a book, if someone has put it on hold, three (20%);
- High fine charges when the book is overdue, two (13.3%); and
- Photocopy expenses since relevant books were on short loan, two (13.3%).

#### **5.3.6.10 Interlibrary loan (ILL) problems**

Fourteen respondents mentioned problems experienced when using interlibrary loan services for their academic purposes. Of the 14 respondents, the majority indicated unfamiliarity with interlibrary loan services as a problem (by eight, 57.1% respondents). The respondents also listed the following problems:

- Shortage of staff (only one staff), three (21.4%);
- Lack of communication with other libraries, three (21.4%);
- Delivery system is very slow and this led to delays in receiving books, three (21.4%);
- Limited number of books that can be borrowed, three (21.4%); and
- Lack of renewal option for books borrowed from interlibrary loan service, one (7.1%).

#### **5.3.6.11 Library discussion room problems**

Eight respondents mentioned problems experienced when using the library discussion rooms for their academic studies. Out of eight respondents, seven (87.5%) said the discussion rooms

were always fully booked and it was a waste of time to wait for them to become available. The respondents also listed the following problems:

- Not aware of availability of discussion rooms in library, four (50%).
- Short period of time to use discussion room, basically one hour, two (25%);
- Discussion rooms were very noisy because of multiple groups of students from different disciplines next to each other, two (25%);
- Uncomfortable chairs and limited space in rooms, two (25%); and
- Lack of plug points for charging laptops, one (12.5%).

#### **5.3.6.12 Printing and photocopy facility problems**

Twenty three respondents indicated problems experienced when using printing and photocopy facilities for their academic studies. The two main problems were long waiting queues when photocopying print materials for academic purposes by 11 (47.8%) out of 23 respondents, and shortage of printing machines in the library by six (26.1%). The respondents also listed the following problems:

- Lack of staff to assist students during weekend and evening hours, four (17.4%);
- Old photocopying machines and poor maintenance of machines, four (17.4%);
- Not all computers were connected to printers, especially in library, three (13%);
- High price of printing and photocopying services, three (13%);
- Lack of scanning service in library, three (13%); and
- Printers were often out of paper and students could not print, two (8.7%).

#### **Subsection B: Personal information needs**

Subsection B of the questionnaire presents the information needs of respondents in terms of satisfying issues related to their personal needs which were covered by questions 33, 34 and 35.

### 5.3.7 Information needs related to personal issues

This is a subsection of section 2 and asks respondents to indicate their personal information needs, identify sources consulted to meet their personal information needs and to determine whether information obtained from the sources were useful.

#### 5.3.7.1 International postgraduate students' personal needs

Question 33 asked respondents to indicate information services related to their personal needs when they were studying at their host universities. Details are depicted in Table 5.21 below and this table was arranged in descending order from the most frequently mentioned personal information need to the lowest.

**Table 5.21: Respondents personal needs**

**N=205**

Needs	Yes		No		Total of responses	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Financial	137	66.8	68	33.2	205	100.0
Accommodation	133	64.9	72	35.1	205	100.0
Health	126	61.5	79	38.5	205	100.0
Travelling	109	53.2	96	46.8	205	100.0
Family	98	47.8	107	52.2	205	100.0
Cultural	83	40.5	122	59.5	205	100.0
Security	70	34.1	135	65.9	205	100.0
Entertainment	57	27.8	148	72.2	205	100.0

**Source:** Field data (2014)

Table 5.21 above shows that in terms of personal information needs, financial needs were dominated and were mentioned by 137 (66.8%) respondents, followed by accommodation

needs by 133 (64.9%) respondents. These were followed by health needs mentioned by 126 (61.5%) and travelling needs by 109 (53.2%) respondents. A smaller majority indicated family needs by 98 (47.8%) and cultural needs by 83 (40.5%) respondents. Security needs were highlighted by 70 (34.1%) and entertainment needs were the lowest reported personal needs by 57 (27.8%) respondents. In addition, one respondent suggested that 'religious needs' should also be incorporated among the personal information needs of international students studying at South African universities.

### **5.3.7.2 Sources consulted to resolve personal information needs**

Question 34 asked respondents to indicate the multiple sources consulted to resolve their personal information needs. Case (2012) indicated that people generally consult both formal and informal sources when they are seeking information sources to satisfy their expressed needs. Table 5.22 below indicates that both formal and informal sources were used. Formal sources essentially were lecturers/supervisors and the university internal units while informal sources were colleagues and friends. Table 5.22 below shows that the two most consulted sources to satisfy personal needs were colleagues by 54 (26.3%) respondents and using Internet services by 47 (22.9%) respondents. The next three sources were lecturers or supervisors by 26 (12.7%) respondents, campus clinic and privates hospitals by 23 (11.2%) respondents, and consulting the Student Housing Office by 21 (10.2%) respondents. Two sources were equally used by the same number of 19 (9.3%) respondents each, were communicating with family members/relatives and consulting the Student Funding Centre or sponsors. The other three sources were consulting the ISO by 17 (8.3%), using the School/Faculty Office by 16 (7.8%), and visiting the university website by 13 (6.3%) respondents. Banks and travelling agencies were noted by 11 (5.4%), Risk Management/Security Services were noted by 10 (4.9%), and social media were noted by 10 (4.9%) respondents as well.



**Table 5.22: Sources consulted for personal needs**

**N=205**

<b>Sources consulted</b>	<b>Frequency</b>	<b>Percent</b>
Colleagues and friends	54	26.3
Internet services	47	22.9
Lecturers/Supervisors	26	12.7
Campus clinic and private hospitals	23	11.2
Student Housing Office	21	10.2
Family members/relatives	19	9.3
Students Funding Centre/Sponsors	19	9.3
International Student Office (ISO)	17	8.3
School/Faculty Office	16	7.8
University website	13	6.3
Banks and travelling agencies	11	5.4
Social media/networks	10	4.9
Risk Management/Security Services	10	4.9
Library and LAN facilities	8	3.9
International cultural day	8	3.9
Student Counselling Centre	6	2.9
Postgraduate research office	6	2.9
Church members and priests	5	2.4
Newspapers and Magazines	4	2.0
Health cover insurance companies	4	2.0
Local media (radio and TV)	4	2.0
International Student Associations	3	1.5
University notice boards	3	1.5
Student Sport Union	3	1.5
Student Representative Council (SRC)	2	1.0

**(\*Multiple responses received)**

**Source:** Field data (2014)

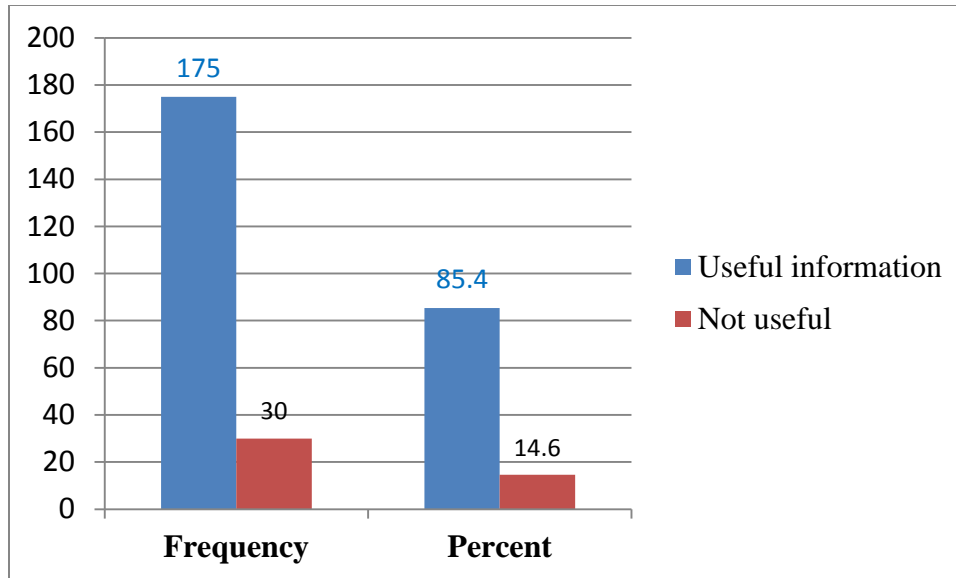
Table 5.22 above shows that 12 sources were used by less than 10 (4.9%) respondents for personal needs. The library and LAN facilities were mentioned by eight (3.9%) respondents, international cultural day by eight (3.9%), the Student Counselling Centre by six (2.9%), and postgraduate research office by six (2.9%), while church members and priests were consulted by five (2.4%) respondents. Three sources were equally used by four (2%) respondents each

and these were health cover insurance companies, local media (radio and TV), and newspapers or magazines. The Student Sports Union, international student clubs, and university notice boards were equally used by three (1.5%) respondents each respectively. A small majority of two (1%) respondents consulted the SRC for their personal information needs.

There were some personal information needs that received particular attention including accommodation issues. Respondent S119 explained that the 'gum tree website' was a relevant source consulted when searching for his off-campus accommodation. In terms of health issues, S19 consulted colleagues who informed her of a clinic at the main campus as well as a number of medical centres which she could consult to receive health care services on presentation of her medical aid card and valid passport. Respondent S27 received financial assistance from the project administrator of his funding sponsor, while S123 applied for a scholarship through the Internet by completing an online form and he managed to obtain the funds. In addition, S53 consulted a financial advisor to secure a fee remission as a doctoral student registered for full-time study. In terms of family related issues, S120 indicated that she frequently used the Internet (emails) to communicate with relatives back home. In terms of travelling information, S156 consulted multiple sources such as colleagues, the Internet and TV adverts made by travelling agencies.

### **5.3.7.3 Usefulness of information obtained from sources used**

Question 35 asked respondents to indicate whether information obtained from the sources was useful for their personal information needs. Figure 5.2 below portrays this information.



**Figure 5.2:** Usefulness of information obtained for personal needs (N=205)

**Source:** Field data (2014)

Figure 5.2 above shows that out of 205 respondents, the majority, 175 (85.4%) highlighted that information received from the sources used to resolve personal information needs was useful, while a small minority 30 (14.6%) noted that the information obtained from the used sources was not useful.

#### **5.3.7.4 Reasons for considering information received not useful**

Question 35 in the questionnaire asked respondents about the usefulness of information services received from multiple sources for the purpose of satisfying their personal needs. Of the 30 respondents who indicated that information obtained from the sources was not useful, 23 (76.7%) provided the reasons, while seven (23.3%) did not provide any reason. There were some concerns reported by students in terms of university management taking action, for example, S204 noted that “I learn at City campus and I study from 4pm to 7pm, there is no transport system for me to travel from City campus to Steven Biko (residence)”. Hence, she had to walk through the open market where students, mostly female, were victims of crime (security concern). She emphasised that “despite complaints over the years none of these travel needs have been met”. Some key reasons mentioned by respondents were largely based on poor service delivery, lack of sufficient information and sources were not well informed.

In terms of poor service delivery, respondents provided the following reasons: S22 noted that accommodation concerns were not clearly stipulated in the admission letter and he then had to secure private accommodation far from campus; S129 noted that the university website did not give all the necessary information especially to new international students. S60, S104 and S79 were told by the financial advisor that university funds were only for local students.

In terms of lack of adequate resources, respondents indicated the following reasons: S155 explained that students could consult many sources but sometimes the source might not have knowledge about the requested information; S23 consulted a librarian who was not sure about the use of some databases; S102 incurred huge costs for health treatments received from a private clinic referred to by other students while he should have paid less for health treatment at a public hospital if he had been given the correct information about available health care services and their costs.

In terms of sources not well furnished with relevant information, respondents presented the following reasons: S132, S168, S184 argued that colleagues and friends were not well informed in order to effectively provide accurate information and they could not admit to the lack of knowledge because they would feel humiliated. Furthermore, S36 and S113 underlined that at times it became difficult to determine which appropriate source to consult in order to get useful support based on a personal need. For instance, students explained that (section 5.3.4.7 above) it was difficult to share some personal issues with a counselling officer because they were not used to this kind of service.

### **Section 3: International Students Office (ISO)**

This section presents information regarding the use of ISO services by the international postgraduate students at the host universities which were covered by questions 36 to 42.

## 5.4 International Students Office (ISO) and additional comments

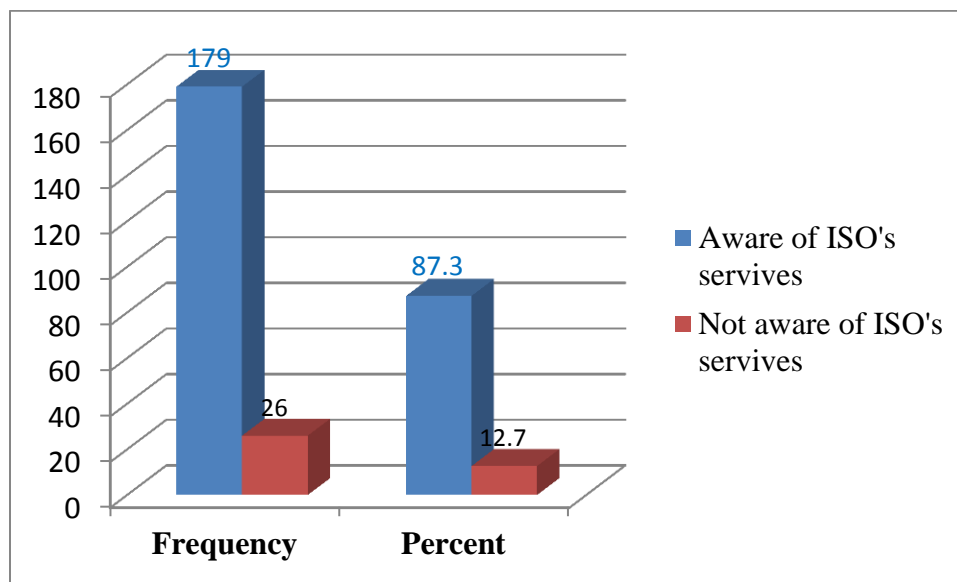
The ISO has the specific duty of providing support to international students from admission till graduation. This section also presents additional comments provided by respondents.

### 5.4.1 Information related to International Students Office (ISO)

This subsection presents information related to International Students Office (ISO). It includes questions about awareness of the ISO services, channels of communication consulted for awareness of ISO services, usefulness of available ISO services, and reasons for considering some ISO services not useful.

#### 5.4.1.1 Awareness of the ISO services

Question 36 in the questionnaire asked respondents whether they were aware of ISO services. Figure 5.3 below shows that a large group of surveyed students had knowledge about ISO services and a small minority of respondents were not aware of all the ISO services.



**Figure 5.3:** Respondents awareness of the ISO services (N=205)

**Source:** Field data (2014)

Figure 5.3 above indicates that out 205 respondents, the vast majority 179 (87.3%) were aware of the services offered to international students by the ISO; while a smaller majority 26 (12.7%) mentioned that they were not aware of available ISO services.

#### **5.4.1.2 Channels of communication used for awareness of ISO services**

Question 37, an open question in the questionnaire, asked respondents to indicate the channels consulted for becoming aware of the ISO services. Of the 179 respondents who reported that they were aware of ISO services (Question 36 above), 177 (98.9%) answered Question 37 and named various sources consulted. Only two (1.1%) respondents did not indicate the sources used to become aware of the ISO services. Results regarding the awareness of the ISO services are presented in Table 5.23 below.

Of the 177 respondents, the most frequent channel of communication involved colleagues and friends by 44 (24.9%), followed by consulting the ISO staff by 37 (20.9%) respondents. Awareness of the ISO services was as a result of using the university website by 21 (11.9%) respondents and School/Faculty Offices were used by 19 (10.7%) respondents. Awareness of ISO services through participating in orientation programmes by 13 (7.3%), and consultation with lecturers and supervisors by 11 (6.2%) respondents.

Table 5.23 also shows that awareness of ISO services occurred for smaller number of eight (4.5%) respondents during the registration process, when consulting the Student Housing Office to searching for accommodation by seven (4%), and communicating with the library staff by four (2.3%) respondents. Four channels were equally used by three (1.7%) respondents respectively and these included the Student Funding Centre, postgraduate research office, the SRC members, and the International Student clubs. The least channel used for awareness of ISO services was Risk Management/Security Services by one (0.6%) respondent.

**Table 5.23: Channels of communication for awareness of ISO services**

N=177

<b>Channels of communication</b>	<b>Frequency</b>	<b>Percent</b>
Colleagues and friends	44	24.9
International Student Office (ISO)	37	20.9
University website	21	11.9
School/Faculty Office	19	10.7
Orientation programme	13	7.3
Lecturers/supervisors	11	6.2
Registration process	8	4.5
Student Housing Office	7	4.0
Library staff	4	2.3
Student Funding Centre	3	1.7
Postgraduate research office	3	1.7
Student Representative Council (SRC)	3	1.7
International Student Associations	3	1.7
Risk Management/Security Services	1	0.6
<b>Total</b>	<b>177</b>	<b>100.0</b>

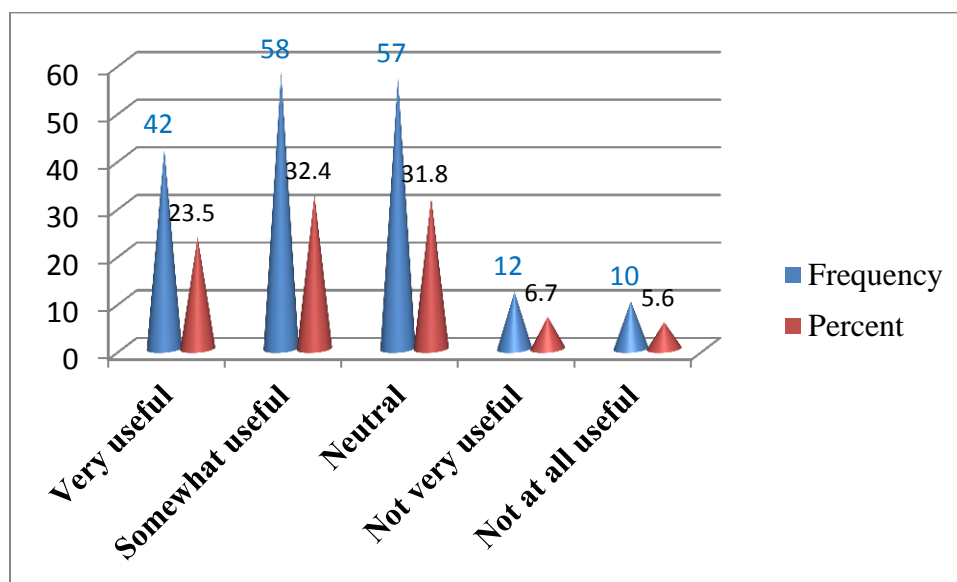
**Source:** Field data (2014)

It was important to highlight the following statements provided by respondents as an indicator that every international student should know and use the ISO services since: S19 noted that “from my admission (letter) I was made aware of the ISO and I know that as an international student, this is the office where I have to go to seek help regarding my stay at UKZN”. S152 explained that she could not register without the study permit and she had to approach the ISO to inquire about the Home Affairs requirements so that by the time she was going to visit them, she would have all the necessary information. S96 indicated that “when I arrived for my undergraduate degree, they (ISO) were my first place of call, showed and gave me all the information about their services”. S119 stated that “during my registration is the most time I

become aware of the role of ISO”. S158 argued that “it is also basically required to get international clearance in order to register for your studies as an international student”.

#### 5.4.1.3 Usefulness of ISO services delivered to international students

It was important to note that respondents not only ranked existing ISO services, they also suggested accommodation and other services to be added to the ISO role. In this context, S181 suggested adding accommodation support to the ISO services offered to international students. S38 mentioned that “ISO helped me in solving accommodation problem”. The ISO services were rated by respondents in the Figures 5.4-5.7 below.

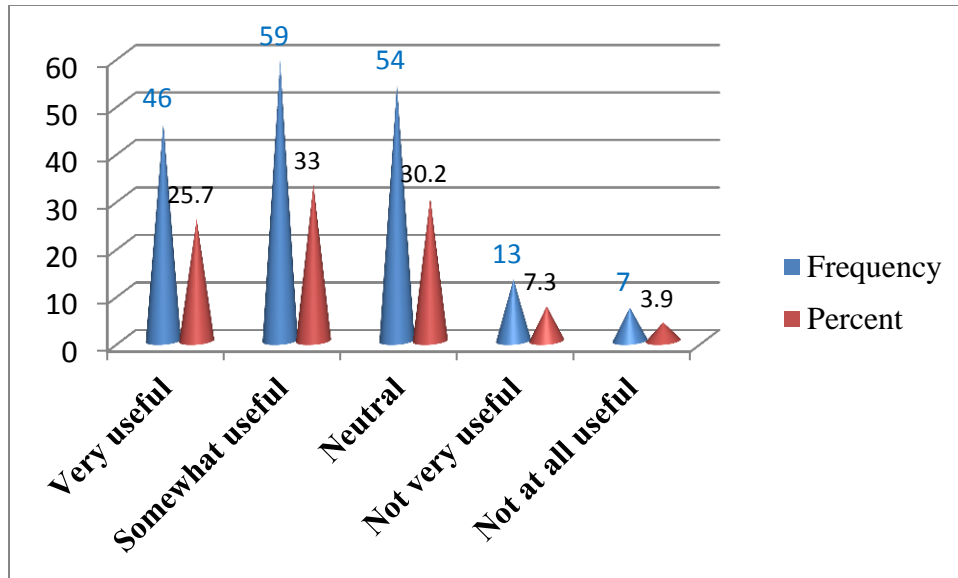


**Figure 5.4:** Study permits applications and extensions (N=179)

**Source:** Field data (2014)

Figure 5.4 above shows that of the 179 respondents, the majority 100 (55.9%) rated the ISO study permit applications and extension service as either ‘very useful’ or ‘somewhat useful’. Fifty seven (31.8%) respondents were ‘neutral’. Twenty two (12.3%) respondents rated study permit services as either ‘not useful’ or ‘not at all useful’.

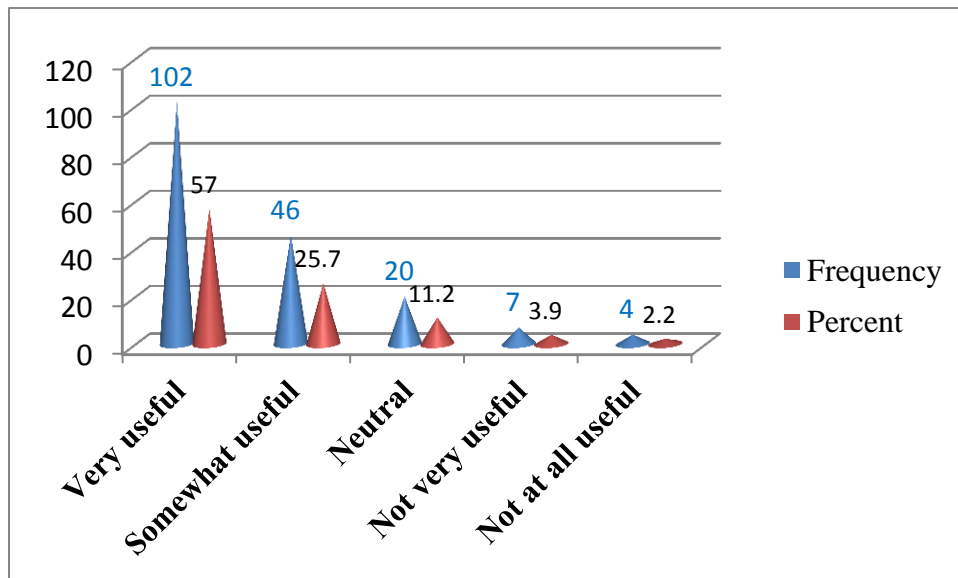




**Figure 5.5:** Applying health/medical aid cover (N=179)

**Source:** Field data (2014)

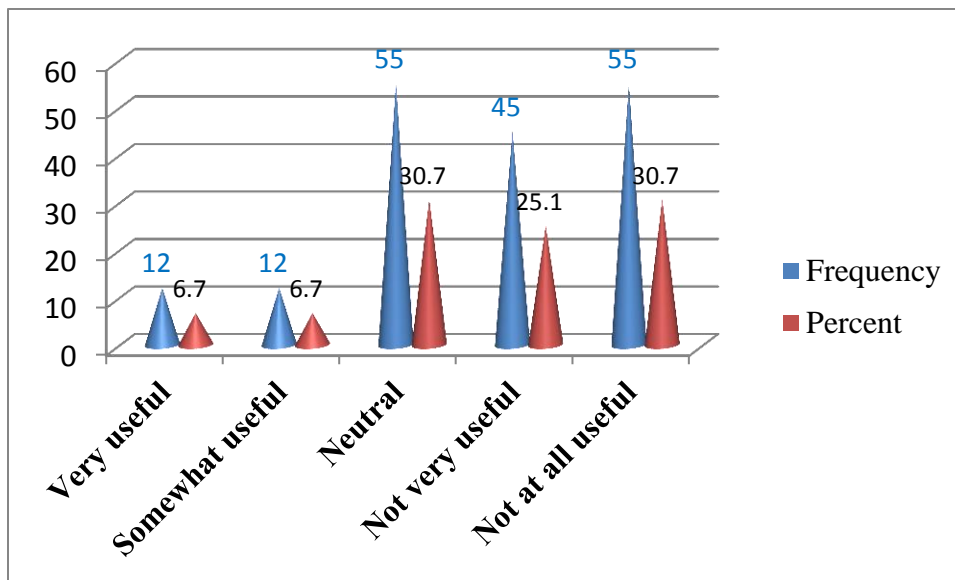
Figure 5.5 above shows that of the 179 respondents, 105 (58.7%) rated applying medical aid cover as either ‘very useful’ or ‘somewhat useful’. Fifty seven (30.2%) respondents were ‘neutral’. Twenty (11.2%) rated these services either ‘not useful’ or ‘not at all useful’.



**Figure 5.6:** Provision of international clearance (N=179)

**Source:** Field data (2014)

Figure 5.6 above shows that of the 179 respondents, the vast majority 148 (82.7%) rated the ISO service in the provision of international clearance as either ‘very useful’ or ‘somewhat useful’. Twenty (11.2%) respondents were ‘neutral’. Eleven (6.1%) rated international clearance service as either ‘not useful’ or ‘not at all useful’.



**Figure 5.7:** Faxes and registered mail services (N=179)

**Source:** Field data (2014)

Figure 5.7 above shows that of the 179 respondents, a minority of 24 (13.4%) respondents rated the ISO service of fax and registered mail as either ‘very useful’ or ‘somewhat useful’. Fifty five (30.7%) respondents were ‘neutral’. One hundred (55.8%) respondents rated the fax and registered mail service as either ‘not useful’ or ‘not at all useful’.

#### 5.4.1.4 Reasons why ISO services were not useful

Question 39, an open-ended question, sought to determine the reasons why some ISO services were rated by respondents as being not useful when students were trying to satisfy their information needs. These services primarily included study visa-permit applications and renewals, applying for medical aid cover, provision of international clearance certificate, and fax and registered mail services (Figures 5.4-5.7 above). Respondents identified three major

concerns including inadequate commitment of ISO staff to offer efficient and effective services to international students, limited power of ISO contribution during the university decision making processes, and lack of awareness of ISO services. These three major concerns were expressed by some respondents in the following context:

Inadequate commitment of ISO staff to provide good services to international students; S19 and S149 maintained that ISO staff take too long to process international clearance which is a compulsory document for every international student required before registering at South African universities. International clearance typically involved a complex process of securing all necessary documents for international students before being allowed to register for academic studies. The failure of ISO staff to deliver satisfactory services negatively affected the process of issuing international clearance to international students. As a result, the registration process would then be delayed because international clearance should be secured for an international student in order to be registered at the host university. S81 noted that it became difficult to obtain the necessary support from ISO staff when handling the challenges faced by international students. S161 argued that ISO staff should be fully committed to timely solving problems experienced by international students particularly during the registration process. S127 stated that ISO had continuously failed to adequately communicate with international students.

As regards limited power of ISO during university decision making process, S14 argued that ISO appeared to have a limited influence on the campus so it could not effectively support international students. S96 expressed that ISO was considered to have no power to assist international students and as result these students had to try other means and sources to obtain information.

As regards lack of awareness of ISO services, S25 underlined lack of awareness of available ISO services since students were not introduced to the services. The following reflected particular reasons related to the lack of usefulness of ISO services. In terms of study visa-permit applications and renewals it was revealed that respondents had already applied for study permits from their home (country of origin) before they came to South Africa. The vast

majority basically applied for renewals of a study permit from the Department of Home Affairs while staying in South Africa. Some respondents could either receive support in this regard from other university internal units (except ISO) or they would not receive any help around the campus. This is explained below in the following responses:

Statements gained from respondents who applied for a study permit from their country of origin; S38 stated that “I have acquired all study permit and health cover from my country before travelling to South Africa”. S41 noted that “I did not apply study permit through ISO here in South Africa because I applied and received it back home before coming to study”.

Statements obtained from respondents who applied for renewal of study visa-permit after their arrival in South Africa included S40 and S150 indicated that the administrator of the School and Faculty Officer respectively assisted them to renew the study visa-permit instead of waiting for the delayed support from the ISO staff.

A statement provided by a respondent who did not receive any assistance from ISO: S57, noted that ISO was not willing to assist when the Home Affairs Department refused to renew his study permit, he was forced to leave South Africa, and asked to submit the application documents for his study permit renewal from his country of origin. He was a PhD student at one of the surveyed universities.

In terms of applying for medical aid cover; respondents generally provided two main reasons for not being satisfied with health cover services offered to them. These included high medical health insurance costs charged and poor services rendered by health insurance companies. Momentum and CompCare were two options available to international students. Respondents outlined the following:

High premium were charged for health/medical aid cover services; S3 and S182 noted that medical aid cover remained too costly and it could not assist international students in case of emergency and serious sickness. S113 noted that ISO commonly supported the expensive health cover charged by Momentum. S12 highlighted that Momentum was interested only in

collecting money from international students but it did not keep assisting students when there was a critical need for medical support.

In terms of poor medical services rendered to international students, S87 noted that ISO did not assist international students when they were applying for medical aid cover. S159 stated that medical aid became a monopoly service and consequently it provided poor services to international students due to the lack of open competition. S204 noted that health cover services did not cover some essential services; particularly radiology tests should be included in the health cover package since a radiology certificate was compulsory for renewing a study permit.

In terms of fax and registered mail services; respondents provided reasons as to why they considered fax and registered mail services not useful and these included the fact that respondents were not well informed of the availability of these services, they preferred to use Internet and email facilities (new technology) than faxes (old channel), and the fax services should no longer exist at campuses. It is important to outline some comments from respondents such as: respondents were not aware of faxes and registered mail services; S104 stated that he had never used the office for faxes and registered mail services. He went further to add that in fact he did not know about the availability of such services.

In terms of preference for using Internet services rather than using faxes and registered mail services, S120 and S169 preferred to use the Internet and emails instead of using fax services. S6, S41, S146, S168, S179 and S182 noted that they did not use fax services because they did not need them. On the other hand, fax and mail registered services were no longer available on campus; S145 argued fax services did not exist at the UKZN-Edgewood campus.

#### **5.4.2 Additional suggestions and comments provided by surveyed students**

This subsection provided the opportunity for additional ISO services to be suggested by respondents and valuable comments were provided for the purpose of this study. Details are provided below.

### 5.4.2.1 Additional ISO services suggested by respondents

Question 40, an open-ended question, asked respondents to suggest other important services they would expect to receive from the ISO but were not available. Table 5.24 below provides details about additional ISO services suggested by respondents and some the suggestions included improvements to existing services.

**Table 5.24: Additional ISO services suggestions**

N=57

<b>Additional ISO services</b>	<b>Frequency</b>	<b>Percent</b>
Create awareness of ISO services	28	49.1
Assist to renew study permits of international students	19	33.3
Collaboration with outside stakeholders	16	28.1
Decrease or cancel the international levy	12	21.1
ISO website or regular use of university website	12	21.1
Support when applying health/medical aid cover	9	15.8
Organise regular meetings with international students	5	8.8
Collaboration with other university internal units	4	7.0
Transport from airport for new international students	4	7.0
International orientation each semester at school level	4	7.0
Coordinating campus trips and city tours	3	5.3
Employing part-time international student in ISO	2	3.5
Keeping detailed records of all international students	2	3.5

**\*Multiple responses received**

**Source:** Field data (2014)

Table 5.24 above shows that of the 57 respondents, the majority of 28 (49.1%) mentioned lack of awareness of available ISO services, while 19 (33.3%) respondents noted the renewal of study permits on behalf of international students. It was generally revealed that the ISO should strengthen liaison with other university units and focus on regular communication with

international students. The other services included collaboration with outside stakeholders such as Embassy Offices and student funding sponsors to name a few by 16 (28.1%), cancelling or decreasing the international levy by 12 (21.1%), and creating an ISO website or using the university website on a regular basis by 12(21.1%) respondents.

Table 5.24 also indicates that services regarding support when applying for health/medical aid cover were mentioned by nine (15.8%) respondents and initiating regular meetings between ISO staff and international students by five (8.8%). Three services were equally mentioned by four (7.0%) respondents and these were collaboration with other university internal units, transport from airport for new international students, and planning international orientation each semester at school level. The remaining three services involved coordinating campus trips and city tours by three (5.3%) respondents, employing part-time international students in the ISO by two (3.5%), and keeping detailed records of all international students for future use by two (3.5%) respondents.

#### **5.4.2.2 Improvement of university services delivered to international students**

Question 41, an open-ended question, asked surveyed students to highlight possible improvements to university services offered to international students around the campus. It was important to note that some respondents namely, S38, S131 and S174 highlighted that services provided by the university units were impressive. Table 5.25 below gives details of suggestions for improvement of services.

Table 5.25 shows that of the 48 respondents who provided suggestions regarding the improvement of university services offered to international students, accommodation was the most frequently mentioned by 25 (52.1%) respondents who suggested increasing the number of residence rooms. It was noted that universities should improve services delivered to international students in the following ways:

Respondents mentioned the ncrease of ISO staff by 18 (37.5%), supporting open competition for health cover services offered to international students by 16 (33.3%), planning effective

cultural day activities as a special day by 13 (27.1%), provision of bursaries and scholarships to international students by 12 (25%), and assistance when applying for SAQA accreditation by 12 (25%) respondents. The SAQA accreditation was compulsory for new international students who had obtained their previous degrees outside South Africa.

**Table 5.25: Improvement of university services**

**N=48**

<b>Improvement of service at university</b>	<b>Frequency</b>	<b>Percent</b>
Increasing number of university residence rooms	25	52.1
Increasing number of ISO staff	18	37.5
Support open competition for health cover services	16	33.3
Planning effective cultural day activities	13	27.1
Provision of bursary and scholarships	12	25.0
Assist when applying for SAQA equivalent degree	12	25.0
Permanent ISO staff at all campuses	8	16.7
Reinforce evaluation mechanisms to control ICT staff	8	16.7
Support international student clubs/forum	8	16.7
Increase office equipment in postgraduate research office	6	12.5
Funding ISO media centre (interaction room)	5	10.4
Establish a policy document for international students	5	10.4
Provision of temporary student card (new students)	3	6.3
Recruiting Graduate Assistants (GA) for each department	3	6.3
Ongoing support of the English language programme	3	6.3
Partnership with landlords for private accommodation	3	6.3
Provision of funds to attend local conferences	2	4.2

**\*Multiple responses received**

**Source:** Field data (2014)



Table 5.25 above shows that three services were mentioned by eight respondents for each and these were that all campuses should have permanent ISO staff members to serve international students on a daily basis by eight (16.7%), universities should support student clubs by eight (16.7%), and implement evaluation mechanisms about services offered by ICT staff by eight (16.7%). Increasing the office equipment in postgraduate research offices by six (12.5%) while the two other services were equally suggested by five (10.4%) respondents each including funding ISO media centre to facilitate interaction of students and a policy document for international students.

Four other services were mentioned by an equal number of three (6.3%) respondents each respectively and these were the provision of temporary student card (new international student), recruiting Graduate Assistants (GA) for each department, ongoing support of the English language programme, and promoting partnerships with landlords for private accommodation. The provision of funds to attend local conferences was mentioned by two (4.2%) respondents.

### **5.4.2.3 Additional comments**

Question 42, an open-ended question, asked respondents to provide additional comments for the purposes of the study. It must be noted that some of these comments overlap with suggestions made in earlier sections. A summary of respondent comments in the context of this study are as follows:

Accommodation concerns should be sorted out by increasing university residence capacity (more rooms) and at the same time by assigning a dedicated staff member in the office who deals only with international students. S19 and S161 mentioned that universities should ensure coordination of the main services delivered by relevant internal units to international students. S149 stated that the residence office at Edgewood had mixed international postgraduate students with undergraduate students, while SRC members who were still doing their undergraduate programmes were unexpectedly allocated in residences normally reserved for postgraduate students. S154 suggested that the university through the appropriate office should make available an online list of vacant off-campus residences so that new international students

can have access to the information and start making the necessary arrangements with the landlords at an early stage while international students are still in their home countries. Particularly, S2, S65 and S128 recommended that universities should give priority to new international students when allocating residence rooms. This should be accomplished when a dedicated staff member from this office is assigned the task to specifically deal with the accommodation of international students.

The university must improve communication channels with the aim of ensuring that all students are well informed about available services and current activities taking place around the campus, particularly services provided to international students as many students are not familiar with their surroundings or new environment. In this context, S4, S29, S37, S115, S167 argued that the university, by using ISO, should bridge communication gaps between the university and the community of international students. They further added that the challenges faced by international students must be addressed by the university authorities. S113 argued that the use of the international levy should be comprehensively explained to international students.

The university should implement proper accountability systems (mechanisms) over some staff members because this could lead to the improvement of service delivery. S117 and S187 discussed this activity and looked at it as a necessary follow-up mechanism about services offered to international students. S25 argued that ICT staff members particularly must be under proper supervision since they are poor at attending to queries or problems of students. They would often make students wait for a long time for even minor requests such as creating a password to use computers in the LANs or installation of wireless access for a student personal laptop. Respondents proposed that suggestion boxes should be placed in libraries and computer LANs. Students would anonymously use these boxes to report poor services offered to them or an inadequate service received from a particular university staff member.

All academic disciplines should clearly stipulate in the admission letter or acceptance letter what is required of international students and the procedures to follow when studying in South

Africa, specifically new international graduate students. This situation particularly highlighted the issue related to the application process for the SAQA accreditation which was not properly explained to many international students before they came to South Africa for their postgraduate studies. S19 and S182 noted that universities should consider a variety of ways to speed up the applications sent to SAQA since the process was very slow, given that SAQA accreditation was compulsory for new students. S158 and S170 mentioned that SAQA procedures and communication systems were not clear. There should be a dedicated staff member at the university to deal with all the SAQA inquiries and guide international students.

The SRC should represent all students equally at the university. This was problematic when international students asked for assistance from SRC and the response was merely that ISO should deal categorically with all problems facing international students. Therefore, some respondents suggested that SRC might have at least one international student in the SRC committee and this student would effectively understand and assist international students.

### **5.4.3 Summary of questionnaire results**

The questionnaire results revealed that respondents had experienced both academic and personal information needs. Writing research projects and the academic registration process were the major academic information needs. Most of the respondents argued that library resources and services were very important for academic studies. In terms of the use of English language as a medium of instruction at universities, students revealed that they had struggled with proficiency in the English language. Personal needs of respondents were basically related to accommodation and financial concerns. Colleagues were the most important source consulted for personal information needs. The Internet was a powerful tool used for both academic and personal matters. Respondents further rated print and electronic resources used for academic tasks as important, and rated the academic support received from subject librarians, lecturers and supervisors as important. Respondents provided helpful suggestions and recommendations for universities and in particular ISOs to consider for improving services delivery.

## 5.5 Results of the focus group discussion

This section presents the findings of the focus group discussion.

### 5.5.1 Introduction to focus group discussion

A focus group was held with ten international postgraduate students on the Pietermaritzburg campus of UKZN. The focus group participants represented both genders, various home countries and levels of study. This section presents demographic information about the respondents. Table 5.26 depicts the overall background of the 10 international postgraduate students who participated in the focus group discussion conducted at the University of KwaZulu-Natal.

**Table 5.26: Demographical information of focus group respondents**

**N=10**

<b>Gender</b>	<b>Country of origin</b>	<b>Study programme</b>	<b>Level of study</b>
Male	Kenya	Gender Studies	Masters
Female	Zimbabwe	Information Studies	Doctoral
Male	Zimbabwe	Political Sciences	Honours
Male	Rwanda	Education	Doctoral
Female	Rwanda	Political Sciences	Doctoral
Male	Zambia	Political Sciences	Masters
Male	Tanzania	Religion	Doctoral
Female	Zimbabwe	Information Studies	Masters
Female	Nigeria	Information Studies	Doctoral
Male	DRC (Congo)	Gender Studies	Masters

**Source:** Field data (2014)

Of the 10 focus group respondents, six (60%) were males and four (40%) were females. In terms of country of origin, students represented seven African countries as follows: Zimbabwe had three (30%) respondents, Rwanda had two (20%), and five countries had one (10%)

respondent for each country respectively. These were the Democratic Republic of Congo (DRC), Kenya, Nigeria, Tanzania, and Zambia. Three schools were represented in the focus group discussion, namely School of Social Sciences with eight (80%) respondents, School of Religion, Philosophic and Classic studies with one (10%), and School of Education with one (10%) respondent. In terms of level of study, five (50%) respondent were registered for doctoral degrees, four (40%) were registered for masters, and one (10%) was registered for an honours degree. Three prefixes were used for presentation of responses received from focus group members (section 4.8.2) and these were FHS for an honours respondent, FMS for a master's respondent and FDS for a doctoral respondent.

### **5.5.2 Information needs of focus group respondents**

Questions 1 and 2 in the focus group schedule (Appendix 6) asked respondents to describe information services related to their academic and personal information needs respectively. The participants were given codes to ensure anonymity (section 4.8.2). It must be noted that the findings of the focus group support that of the questionnaire. FMS10 indicated that as international students, there were certain issues that were common to all students. He also believed that international students fundamentally need to know the requirements, and procedures of a host university. The information needs of focus group respondents are given below.

#### **5.5.2.1 Postgraduate admissions**

FDS9 noted that the first step for her academic inquiry was related to the collection of an admission letter. She was expected to confirm the acceptance of the admission within a short period of time (three weeks) before the university opened for the first term of the academic year. In this regard, she had to make a telephone call to the Faculty Office and she was asked about the application that she had submitted the previous year. Unfortunately, she was told that the admission letter had been sent to her two months ago via registered postal mail. Since she only received the letter a week before classes started, she was advised to come and collect a copy of the admission letter in the Faculty Office because the original letter had already been

sent through the postal mail. In as much as she managed to register for doctoral studies, she explained that it would be more appropriate if the admission letter was sent to her through personal email with attached documents as her email address was previously indicated on the application form.

Furthermore, FMS6 mentioned that in the event of the university using registered mail as a channel of communication, the Administrator from the School/Faculty Office should follow-up by sending an email or making a telephone call in order to ensure that the applicant had timeously received the admission letter. FDS7 expressed that this follow-up action could prevent any possible delays for international students to accomplish not only all requirements but also to meet the deadline for university academic registration.

#### **5.5.2.2 South African Qualification Authority (SAQA)**

FMS10 indicated that international students should be given sufficient information about the South African Qualification Authority (SAQA) accreditation process. New international students were not allowed to register for postgraduate study unless the SAQA had evaluated and accredited a previous degree obtained outside South Africa. Respondents agreed that the SAQA application should be done before the student arrives in South Africa. FDS5 had attended her studies at the current university since her first year undergraduate programme. She noted that it was clearly stipulated in a university handbook offered to her (undergraduate prospectus) that she was expected to submit the Higher Education South Africa (HESA) evaluation of her matric certificate to the faculty in order to be registered for academic studies. She further mentioned that the faculty had certainly assisted her to send and follow-up her application for matric exemption to HESA, and she had secured and submitted the HESA evaluation to the faculty for registration.

Similarly, in terms of the SAQA accreditation process discussed briefly above, FMS1 explained that it was not clear what the criteria or standards are that the SAQA refers to when the Authority is evaluating a degree. FMS6 argued that this was confusing especially when two people submitted their degrees obtained from the same university but after evaluation, one

applicant received a Bachelor degree equivalent and second applicant received an honours degree equivalent. FDS5 and FMS08 suggested that more detailed information should be made available on the website of SAQA explaining the process to be followed. FDS7 noted that the SAQA process should also be clarified in the admission letter sent by the Faculty Office to students and should be explained during the orientation programme provided to international students within the first week of arrival on campus.

### **5.5.2.3 International orientation programme**

FDS4 explained that whenever a person is adjusting to a new environment there is always a need to be well oriented about the surrounding environment. He mentioned that international students particularly have to be offered an orientation programme at School or Departmental level introducing them to available services that could help them to deal with various challenges. An international orientation programme should facilitate communication between service providers and the international student community since they all come together and discuss matters related to academic concerns and the life experiences of international students while they are studying at host universities. FDS2 highlighted that the orientation session held on campus at the beginning of the academic year should promote proper communication between the university management and international students who need to adjust to the new academic environment.

Focus group respondents noted that sometimes they had spent a lot of money for transport by using meter taxis to get to banks, shopping malls, the main bus stations, police stations, and church, while they would have used public transport services of a low cost if these students were aware of them. Respondents argued that it is always important for international students to be offered a thorough orientation tour not only of campus but also to common places such as those mentioned above that are near the campus. However, one respondent who had spent the first academic term at Edgewood campus located at Durban, joined the university orientation event known as the 'city tour' which took international students to Durban city to explore the most common places. All focus group respondents recommended that all international students

from all campuses should be given the same opportunity because the city tour event was not happening on all campuses.

#### **5.5.2.4 Registration process**

FDS9 argued that the important thing for an international student was to know where the ISO could be found and how the ISO was able to assist her in registration process as a new international student. FDS7 argued that as a new international student, he wanted to sort out his registration before anything else. He was advised by his supervisor to start by registering and receiving a student card which provided access to the LAN for Internet facilities. FDS7 revealed that without being registered the student is not able to borrow library materials. Consequently he indicated that the more the registration is delayed, the higher the risk of finding fewer books available in the library related to specific research methodologies which would have already borrowed by other graduate students. FDS2 and FMS8 noted that in this case, the only option would be to request necessary books through interlibrary loan services from other campus or another university, and books may take a long time to be delivered to the student. The delays may negatively impact on the submission of poor work or late presentation of a research proposal. FDS4 further indicated that writing and presenting research proposals requires endless effort because it creates a vital foundation of conducting the final research project.

#### **5.5.2.5 Funding opportunities**

FDS7 noted that he wanted information on funding opportunities including bursaries and scholarships. Initially, he heard from a classmate that there were funds available for PhD students in his School of Philosophy, Religion and Classics but he did not know whom to ask for such information. ISO staff referred him to the financial advisor in the Student Funding Centre but he was told that funds were only for local students who were registered for doctoral degrees.



### **5.5.3 Major sources consulted by focus group respondents**

Questions 3 and 4 (Appendix 6) asked focus group respondents to indicate the sources consulted for academic and personal information needs. Participants argued that there were many different sources that had helped them to meet their information needs. The study mentioned sources used by the vast majority of focus group respondents such as consultation with lecturers and supervisors and subject librarians for academic research purposes. Respondents had communicated with colleagues for social interaction, but family matters had mainly involved relatives. Sources generally used by focus group participants were categorised as follows:

#### **5.5.3.1 International Student Office**

Focus group participants used the ISO to secure the international clearance for registration purposes. FMS1 noted that all international students were required to present necessary documents to the ISO in order to secure the international clearance. However, FHS3 and FMS6 argued that there was a limited number of the ISO staff to assist the large group of international students, especially new students who were not familiar with a new academic environment. In terms of providing support to students, FDS6 highlighted that the ISO was not helpful when he was renewing a study permit and the renewal delayed registration for his current study programme. However, FMS8 indicated that the ISO staff had assisted her to subscribe to medical aid cover from Momentum and the medical aid card was issued to her after a few weeks. FDS4 indicated that the ISO had provided the necessary information regarding accommodation and directed him to the appropriate university units for academic purposes. Focus group respondents considered the ISO a reliable source of information and they suggested that the university should provide sufficient staff members with the aim of improving services provided by the ISO to international students.

### **5.5.3.2 University internal units**

Focus group respondents had consulted multiple sources available on their campus. Generally, respondents considered university internal units as reliable sources of information. For instance, FDS2 went to a School administrator for information regarding an application for ethical clearance, while FMS1 went to a financial advisor for information regarding outstanding fees. Some specific examples were as follows: two respondents argued that it was useful to consult different sources depending on the nature of the information need. For example, FHS3 explained that a Faculty Office had provided proof of registration and FMS8 added that the Student Housing Office assisted with obtaining residence accommodation.

Moreover, respondents argued that some university units assumed that international students only need information relating to the registration process. FDS9 provided an example of not being able to open a local bank account. The financial advisor did not inform the student of the procedures for receiving scholarship funds. She was told by a colleague to consult the residence department and housing office from outside South Africa. Fortunately, she was told by a colleague to consult the Student Housing Office to secure proof of residence and she was then able to open a bank account into which her scholarship money was paid.

### **5.5.3.3 Library resources and services**

Focus group respondents explained that use of library resources was very important for their academic studies. They used both print and electronic resources available in the library. Respondents highlighted that they had visited the library to borrow books that helped with writing their research projects. They had used the library databases to consult recent articles published on their research topics. They mentioned that it was more reliable to consult the library databases than using only the Internet sources. They explained that the university pays subscriptions in order to provide access to databases from reliable scholarly sources. Lack of adequate computer facilities in the library may explain the point that respondents reported limited Internet connectivity in the library. However, the Internet was accessible from the LANs and postgraduate research office. Respondents have also used other library services such

as using the library as a place for study, consulting library staff, borrowing books for assignments and preparation for writing tests/exams, using the print theses/dissertations, interlibrary loan to borrow books from other libraries, short loan materials, printing and photocopying services.

#### **5.5.3.4 Academic support from subject librarians**

FMS6 indicated that subject librarians were available to help when searching for academic resources for writing their research project. FDS4 and FMS1 mentioned that they had attended the library training session for referencing, the use of EndNote and searching library databases. FMS1 highlighted that after consulting a subject librarian, he was able to effectively search for relevant articles that could assist him when writing his research proposal.

Moreover, focus group respondents generally commented on academic assistance received from subject librarians:

- Subject Librarians were usually ready to help graduate students when they had difficulties while searching for relevant information resources for their research projects. However, students had to make an appointment. This allowed the subject librarians an opportunity to plan ahead since they were always busy due to many queries from the large number of graduate students.
- Subject librarians taught international students how to locate and evaluate online resources from the Internet for academic purposes and to search academic databases. Furthermore, subject librarians provided respondents with referencing guidelines and they had also trained graduate students how to use EndNote for writing theses/dissertations. Subject librarians would go the extra-mile by showing graduate students how to create their own library references for maintaining a reliable referencing style.
- Subject librarians were very helpful when assisting graduate students since they would send emails and forward new articles published on library databases to students.

Similarly, they had frequently helped students to look for a book that would be missing from the shelves or put the necessary books on hold (reserve) for graduate students. The issue desk staff would then call the student to come into the library and collect the books that were put on hold for the graduate student.

### **5.5.3.5 Consultation with lecturers and supervisors**

Focus group respondents agreed that it was important to communicate with lecturers and supervisors. FMS1 and FHS3 noted that communication with academics helped the graduate students to ask for assistance, for example, the strategies to be used in order to meet the academic deadlines. This involved meeting submission dates for class work, attending seminars and writing research proposals. FDS4 stated that “my supervisor is very helpful. She gives me relevant resources and information that help me to work and seek more information on my own for my research project”.

Focus group respondents highlighted how helpful academic support obtained from lecturers and supervisors was:

- Lecturers and supervisors had frequently requested graduate students to come for consultations and they could try to make themselves available for assisting students especially when an appointment had been made earlier.
- Lecturers were clear on which sources of information were required for an academic task. In this context, lecturers basically furnished graduate students with a list of recommended text books and academic journals in the study guide at the beginning of each semester.
- Supervisors would also suggest research sources to consult and recommended useful websites since they were experts within the field in which the graduate students were conducting research. Furthermore, supervisors could provide guidance on what online articles were available for the literature review.

- Supervisors were very supportive because they were willing to lend their personal books and printed copies of articles to graduate students. Supervisors were helpful when graduate students were writing up their research, and during the data collection process, supervisors would assist the students to contact institutions involved in the study.

#### **5.5.3.6 Communication with colleagues and relatives**

It was important to note that international students had frequently communicated with their colleagues and relatives who had played a vital role as channels of communication for both academic and social needs. For instance, FMS1 communicated with a colleague who introduced him to other friends and they showed him which offices to consult for future information services including the Faculty Office, financial advisor, campus clinic, and they provided a short tour within the university library building. FMS6 was directed by colleagues to a bus station and shopping mall. In addition, FDS4 explained that relatives had frequently provided financial support and family related support and he acknowledged that studying at a distance from family members required regular communication with relatives.

Respondents also noted that international students were interested in creating and maintaining friendships with colleagues, but it sometimes became difficult to associate with people that have a different social background and diverse cultural beliefs. Respondents mentioned that they gradually got to know new friends from the university community either because of common academic interests such as attending the same classes, having the same supervisor, sharing the research office and staying in the same residence block or because of particular social events such as participating in an international culture day, attending the same church services and playing the same sport to name a few.

#### **5.5.3.7 Internet use and computer services**

It was found that international students could physically visit the library or they would sometime prefer to use remote access to library resources. For instance, FHS3 noted that he visited the library to read his textbooks, borrow print books for improving class notes or for

writing assignments and to make photocopies of materials. However, FMS8 noted that all necessary resources were available on the Internet and therefore she frequently worked through remote access to the library's OPAC and bibliographic databases from the LANs or residence room.

Respondents also acknowledged there were limited recreational printed materials in the library. Therefore, they argued that using the computers available in the LANs which operated 24 hours a day seven days a week, allows a student to have access to online recreational resources available that reflect a diverse cultural need. Respondents further indicated that using computer services typically enable the international postgraduate students to benefit from services such as scanning their official documents and keeping them saved in their email boxes; they could print work at any time even during weekends while the library was closed. They further added that they could send and receive email messages for academic and family related matters; they could browse web services or use social media on the Internet to communicate with relatives and colleagues.

#### **5.5.3.8 Google Scholar**

Google Scholar is a subset database of the more scholarly literature on the Google search engine database. FDS4 underlined that in most cases Google Scholar helped when searching electronic resources. Similarly, FDS2, a doctoral student recommended that other students consult Google Scholar for academic research purposes. Respondents indicated that they were not aware of any difference between Google and Google Scholar. FDS2 explained that it is difficult to control electronic resources published on Google since everyone can publish a web document, while Google Scholar contains scholarly resources which are authoritative. During the focus group discussion none of the respondents mentioned that they had used Yahoo as a search engine.

#### **5.5.4 Usefulness of sources consulted by focus group respondents**

Questions 5 and 6 (Appendix 6), asked respondents to discuss the usefulness of sources used. Participants provided examples that could reflect the usefulness of information sources consulted by respondents and they were as follows:

The university websites were inadequately used since some information services were outdated or not satisfactory explained. FMS8 mostly relied on information from a friend who had been studying at the same university a few years ago. She then obtained information from a friend about funding, accommodation, medical health insurance because he had been familiar with the university system. On the other hand, FDS9 called and emailed the school administrator who informed her about applying for scholarships and accommodation. In terms of academic mentoring, she consulted a lecturer from her department who provided her with the necessary advice regarding how to search for relevant resources especially electronic journal articles.

A focus group respondent argued that life at the campus within the first two weeks was difficult because of the many challenges. He explained that he did not attend an orientation session because he was not aware of the venue and he did not know anyone around the campus to request such information. He noted that the direction guides provided to new students should always be clear to avoid any complication or confusion about locating a particular venue and contact details for queries should be provided in the correspondence.

Similarly, another respondent noted that he did not participate in library orientation and the tour around campus as he arrived at the campus one month after school activities have started. He indicated that it was even harder to have access to the university facilities especially Internet facilities. He explained that he was not aware that after registration and collection of his student card from the university security office he was supposed to request access to computer services from the ICT helpdesk. Unfortunately, he was not satisfied by the information received from his roommates because they were not well informed. Fortunately, he was successfully helped by his supervisor who provided him with the necessary information. Respondents also observed that subject librarians assisted new students to retrieve relevant academic information within

several research areas. FDS9 further noted “I always seek the help from the subject librarian and I am always satisfied with the assistance given to me”.

### **5.5.5 Problems experienced by focus group respondents when seeking information**

Questions 7 and 9 (Appendix 6), asked focus group respondents to highlight the main problems experienced when seeking information. Focus group respondents mentioned they had experienced different challenges that were interrelated to some extent. These challenges are comprehensibly presented as follows.

#### **5.5.5.1 Slow Internet connection in library**

Focus group respondents discussed that a graduate student would normally seek assistance from a subject librarian to retrieve relevant articles from library databases, but the Internet connection was very slow in the library. FMS1 argues that subject librarians often ask students to come back later or to make another appointment. He added that this later appointment may be considered too long a wait. The reality reflected the shortage of subject librarians as they are often fully booked most of the time. Consequently, a student might not be able to wait for the next appointment in order to obtain the necessary academic support that he/she was expecting and this affected the submission of academic work within the prescribed time. FDS7 noted that use of the LANs could serve as an alternative option to searching databases, but it is difficult for a graduate student who resides off-campus. FMS6 maintained that off-campus access to Internet involves the high cost of paying Internet providers. Thus, connectivity of the Internet in the library should be improved in order to ensure maximum usage of library electronic resources.

#### **5.5.5.2 Lack of awareness of available academic resources**

Focus group respondents discussed that some library services were poorly marketed and as a result those services were inadequately used by students. Respondents mentioned some valuable services that were poorly used such as consultation with subject librarians, using



interlibrary loan services, and being able to borrow academic reserve materials overnight or over weekends. FDS2 noted that there were many available research materials that were not used by international students because they were not aware of the resources. In this context, she further mentioned that for instance, some international students do not know that there are online dissertations (pdf copy) available on the library website. FMS8 also agreed that there are digital video disks (DVDs) and compact disks (CDs) available at short loan or academic reserves but many international students are not aware of these library materials. These library resources could improve English competence for those international students who experience English language proficiency problems. These resources would also increase communication skills for international students who need to communicate effectively with supervisors and subject librarians when seeking information.

#### **5.5.5.3 English language proficiency challenges**

Focus group respondents pointed out that some subject librarians and lecturers/supervisors use sophisticated English language for communication. FMS10 noted that although English communication may be a general problem for international students who do not speak English language as their first language, it may be more difficult for international student who had not attended the English language development course or even participated in the English academic writing workshop. It was also reported that English language communication became difficult when international students were trying to communicate with people outside the campus. For example, when they were shopping at the malls and when they were travelling to town using public transport. Other English proficiency challenges mentioned by focus group respondents were a limited English vocabulary to ask for explanations from lecturers, English accents and some supervisors spoken fast during consultation, lack of familiarity with some technical English terminologies used by subject librarians in the library, inability to interact with colleagues because of different English accents, and grammatical errors when writing English.

#### **5.5.5.4 Limited information literacy skills**

The vast majority of focus group respondents noted that the library database training should always be regarded as a fundamental academic support for graduate students, specifically new international students. This was strengthened by FMS1, FDS4 and FDS9 and they further recommended that the training sessions relating to use of the library databases should be increased especially for new postgraduate students who have completed their previous degrees outside South Africa. Respondents also presented challenges related to shortage of technological knowledge. They noted the following technology challenges: lack of information technology skills to determine relevant academic resources, difficulty in evaluating resources gathered from the Internet, computer software used for research analysis, especially SPSS for capturing and analysing quantitative data or NVivo for analysing qualitative data. Other information literacy challenges mentioned included referencing online resources and using EndNote; creating and inserting tables, figures and charts in a thesis; and using PowerPoint presentations in seminars.

#### **5.5.5.5 Financial challenges**

Focus group respondents commented on the high tuition fees charged to international students from other African countries except students from SADC because they paid the same fees as local students. FDS4 mentioned that students from Rwanda were also charged the same tuition fees as South African students (local fees). He noted that Rwanda was not yet a member of SADC but this was based on a specific educational agreement between the two governments. FDS7 argued that as a postgraduate student, especially at the PhD level of study, there is always a need to participate in academic workshops and to attend local conferences held by other universities in order to boost their knowledge, improve academic understanding and interact with highly qualified scholars. It is commonly accepted that developmental workshops focus on promoting academic success and involve skills development such as workshops for development of academic writing skills or workshops regarding the use of SPSS for quantitative data analysis.

FDS5 and FMS1 outlined some additional fees incurred by international students apart from the high tuition fees charged, these being renewal of a study permit, annual health/medical aid cover expenses, and the international levy paid every year, travelling fees, and the high cost of living. FMS6 explained that the high cost of living in South Africa is reflected by the lower purchasing power of many international students based on the exchange rate when comparing the Rand with the lower value of local currency brought by international students from other African countries.

#### **5.5.5.6 Socio-cultural challenges**

Focus group respondents basically agreed that there were cultural misunderstanding because South Africans assumed that all black African people (students) should understand and know how to speak IsiZulu, the local language predominantly spoken in KwaZulu-Natal. This would become more problematic when students were doing group work discussions and some group members were mixing English and IsiZulu when they spoke. The international students often felt discriminated against in public places such as shopping malls, bus stations, and churches because local people would call international students names such as foreigner, refugees, thief, and so forth. Respondents further described some social-culture challenges that were hindering social adjustment and the creation of friendships with colleagues and these included a judgmental or bad attitude by locals which undermined other people's culture.

#### **5.5.5.7 Plagiarism and different referencing styles**

Focus group respondents commented on a lack of formal training sessions regarding plagiarism and the multiple referencing styles applied from one discipline to another. Respondents noted that academic ethics related to plagiarism and copyright were not clearly explained to international students during library training. Other challenges outlined by respondents in regard to plagiarism comprised of inadequate ability or knowledge to paraphrase other people's ideas, properly acknowledging sources used for academic work, and different writing styles of online articles consulted that might relatively create confusion when referencing other authors' works.

#### **5.5.5.8 Accommodation problems**

There was a high demand for university residence accommodation compared to the very limited number of residence rooms that were available. International students sometimes were not aware of the fact that if a student is accepted to study at a host university, it does not necessarily mean that the student will automatically secure a room in the residence. In other words, it is the responsibility of the student to personally secure accommodation when studying at selected universities. FDS5 noted that finding accommodation was very important when she came to South Africa. She first went to the Student Housing Office and she was told that she could not secure a residence room because the university residences were fully occupied. She had to look for private accommodation. She underlined that the price of private accommodation normally changes depending on the location of the house and facilities offered by landlords. She noted that many international students who stay off-campus end up paying for accommodation which is far more expensive than the university residence.

#### **5.5.5.9 Security problems**

It was found that for students who were staying in off-campus accommodation, no security assistance would be provided from the university security services. Yet students who stay in the university residences are typically allowed to have security support at night (escorting) from campus to their appropriate residences. FMS10 noted that security of property within residence accommodation was a critical issued. He gave an example that his personal laptop was stolen while he was staying on campus. He went to report the case to Student Housing Office, but was asked by staff members if he had insured his property. The response was 'I don't have it', they then informed him that there was nothing they could do to assist him.

#### **5.5.5.10 Lack of adequate assistance from university units**

Focus group respondents noted that the SRC could not help international students and students were only invited to attend a strike. Respondents mentioned that if an international student had a problem and needed support to deal with the problem, the SRC would send the student to the ISO without taking any action. Respondents also noted that postgraduate students have to have

anti-virus software updated on personal laptops frequently because important research data are saved on their laptops. However, ICT staff insisted graduate student should buy anti-virus software instead of helping to install the computer software onto the student's laptop. Students also experienced delays in saving SPSS to their laptops as the licence code was only kept by the ICT help desk staff.

### **5.5.6 Resolutions of problems experienced by focus group respondents**

Questions 8 and 10 asked respondents to indicate the resolutions of problems relating to their academic and personal needs. FMS1 noted that funding opportunities were very limited for international students, while fees charged to these students were continuously increasing especially tuition fees and the international levy. FMS6 noted that there was a breakdown in communication relating to funding opportunities. In addition, FDS2 argued that this reflected inadequate communication from the financial advisor. She further noted that graduate students who had applied for funding must be notified of the outcome of the application. She concluded this notification could help graduate students to consider possible alternatives for sources of funding or budget accordingly if their applications were not successful.

FDS9, FMS6 and FMS1 argued that university staff mistakenly assumed that all students know what to do and where to go for help. The situation is different in reality because many graduate students, especially new international students have no knowledge of their new university environment and they need proper orientation to settle down in the university community. FDS4 acknowledged that the orientation programme was very useful for every new student undergraduate or postgraduate. He gave an example that he had attended the orientation programme at the UKZN-Edgewood campus where he did his first semester and he did not struggle to adjust within and around the campus. Focus group respondents further recommended that every school should always arrange orientation for new postgraduate students each semester. This would become more helpful for new international students who sometimes arrive after the orientation programme because of delays in obtaining official documents and travelling challenges. FDS9 argued that some services were not well advertised and international students were not aware of them. In this context, she gave an example of herself.

When she was accepted to attend a conference outside South Africa, she did not know who to consult. Colleagues who had attended a similar conference directed her to consult an office located on campus which deals with supporting students to travel for conferences and seminars.

### **5.5.7 Usefulness of ISO services and suggestions for improvement**

This section presents respondents' opinions regarding the usefulness of ISO services. These ISO services included applying for and renewal of study permits, application for health/medical aid cover, and provision of an international clearance. Faxes and registered mail services were not mentioned because they have been regarded as outdated services to international students. Important arguments are presented below about the usefulness and improvement of the ISO services delivered to international students.

#### **5.5.7.1 Study visa-permit applications and extensions**

FDS7 indicated that the main problem was renewal of a study permit. It had taken almost three months to obtain it and consequently it delayed his registration for PhD studies. It is theoretically expected that the renewal of a study visa should be processed within a period of six weeks. Consequently, it was difficult to be allocated a supervisor because all the supervisors had already taken on a certain number of graduate students to supervise. Focus group respondents suggested that the School/Faculty Office in collaboration with the ISO should apply for renewal of the study permits on behalf of the international students to speed up the process.

#### **5.5.7.2 Application for health/medical aid cover**

Focus group respondents noted that health cover services would be very useful if they were actually covering health issues experienced by international students in the ways these services claimed to assist students. It was important to note that medical insurance had to be from a recognised South African company. In this context, these were Momentum and CompCare. Health cover was considered to be very expensive compared to the poor medical assistance

provided to international students when they fall sick. FDS9 quoted that “Momentum provides very poor medical services and a person can even write a book in terms of failure to support international students”. Respondents agreed that the ISO and Campus Clinic Centre have to work closely when selecting and evaluating health cover service providers. This was based on the lack of coordination in terms of controlling mechanisms related to medical services offered to students especially in a case of emergency and serious illness. Respondents suggested that an open market competition system may lead to an effective provision of satisfactory medical assistance, instead of relying only on monopoly services offered by two health insurance institutions. FMS1, FHS3 and FDS4 also recommended that the ISO should basically apply for health cover on behalf of international students especially if a student had been offered a medical cover card before and was already in the health cover insurance system.

### **5.5.7.3 International clearance**

It was found that many international students are not fully informed about ISO services and they mainly visit this office because they have to secure international clearance before registering for academic studies. Respondents highlighted that the provision of international clearance usually takes time because of the large number of international students that have to be served by the limited number of ISO staff, in general one or two people work in this office. Respondents also noted that a valid study permit and medical aid cover generally involve lengthy processing of documents and are compulsory for securing international clearance from the ISO. Thus, respondents suggested that the university must increase the number of ISO staff.

### **5.5.8 Usefulness of library resources and services**

The usefulness of the following library resources were discussed during the focus group:

#### **5.5.8.1 Library catalogue (OPAC)**

Focus group respondents indicated that they had problems regarding the use of the OPAC when they were new at the university, but after library training they were able to search for books

through the OPAC without any problem. Respondents explained that it could be useful if the books found on the OPAC were to be found at the right place on the shelves.

#### **5.5.8.2 Online databases**

International postgraduate students maintained that online databases had relevant and accurate academic information. Focus group respondents highlighted that both Ebscohost research databases and Sabinet were used for writing research projects. Ebscohost basically contained international academic publications, while Sabinet primarily included Southern Africa scholarly resources. Some respondents also indicated the use of multidisciplinary databases, namely Humanities Full-Text, Jstor and Proquest.

#### **5.5.8.3 E-books**

Respondents indicated that access to e-books was difficult because online publishers reserve their copyright and they only provide access to the book covers and the abstract page. Respondents noted that e-books did not have downloadable full-text. Respondents mentioned that they did not have an interest in consulting e-books because there were alternatives including the print books available on the shelves within the library; electronic journals had downloadable full-text and they could use interlibrary loan services.

#### **5.5.8.4 E-journals**

Focus group respondents argued that the Internet connection in the library was very slow and it was not easy to open electronic journals available from online databases. Therefore respondents mentioned that they had generally preferred to search electronic journals through remote access from LANs, postgraduate offices or residence rooms because of the following factors: limited library opening hours, easy use of electronic journals, and availability of recent online journal articles that have downloadable full-text. The full-text electronic journal articles can be saved onto a flash-disk and students can forward the electronic copy of a document to their personal emails without moving around with heavy printed materials.



#### **5.5.8.5 Print materials (books and journals)**

Respondents noted that it was important to use the print books borrowed from the library. These print books were used in order to complement and support information resources obtained from online resources. Respondents could either take books from the shelves and use them inside the library or borrow books. Respondents highlighted that they had principally borrowed books related to research theories and methods in order to write research projects. They could sometimes use print books for other academic tasks such as tests and assignments. However, respondents argued that many books were misplaced on the shelves and it was hard to locate them. However, print journals were not heavily used by focus group respondents. Respondents then discussed that print journals were not useful resources since they had outdated information and they were issued for only three days without a renewal option. Respondents concluded that the print journals were not useful for writing research projects when compared to available online full-text journals that had recent information.

#### **5.5.8.6 Theses and dissertations**

The consultation of theses and dissertations is very important since graduate students can examine previous research done within the same discipline. Dissertations helped respondents to structure their literature review and research methodology. FDS2 noted that the use of online dissertations available on the UKZN library website (Research Space) had positively contributed towards writing her literature review and understanding of the appropriate research methodology to be used for her study. However, respondents indicated that print copies of dissertations had to be consulted within the library and were not for loan. The few print copies available in the library were heavily used by graduate students. Furthermore, respondents mentioned that electronic copies of dissertations took long to be uploaded onto the library website.

#### **5.5.8.7 Reference collection including dictionaries and encyclopaedias**

Respondents noted that although abundant explanations and definitions were available from online resources mainly via using Google, it was still important to consult the library reference collections. However, reference collections were not sufficiently consulted due to the lack of awareness of these materials; they were not allowed to be taken out of the library; while some materials were very old and outdated. Alternatively, some respondents preferred the synonym search in the word processed document instead of spending time searching for the meaning from a print reference source.

#### **5.5.8.8 Services from subject librarians**

Respondents indicated that subject librarians were ready to assist students when searching for information from online databases. FDS7 recalled one instance where he had failed to access an online database off-campus. The subject librarian identified the problem and advised him how to access the database. In addition, respondents highlighted that subject librarians also assisted with identifying relevant academic materials for students based on their particular information needs. FDS9 noted that the subject librarian had provided two useful online journal articles to consult for research and the subject librarian further assisted by applying for an interlibrary loan book from another campus.

#### **5.5.8.9 Short loan or academic reserves**

Respondents noted that short loan services should be improved since academic reserve materials were very limited in number and could only be used for a short period of time. Respondents suggested that the university should increase the budget allocated to the purchase of short loan books and the period of time to short loan materials should be increased.

#### **5.5.8.10 Interlibrary loan services**

Respondents suggested that the library should increase the number of staff for interlibrary loan services to attend to the increasing number of graduate students. Respondents indicated that it can take weeks to receive a book while a student had to work under tight deadlines. In many cases, respondents mentioned that a book would get to a student when it was no longer useful or a book would not even be received by a student. Respondents argued that the interlibrary loan services had to be improved because the service assisted graduate students to access resources for their academic purposes.

#### **5.5.8.11 Availability of discussion rooms**

It was noted that graduate students did not use the library discussion rooms given the nature of the academic tasks which were different from undergraduate students who often used the library service because they needed to do group work discussions. FDS4 expressed that some libraries had a 'research commons' that provided a comfortable place to work on their research projects with full Internet connection and limited disturbance or noise. The research common room facilitated communication and interaction between graduate students and they could support each other since they were working in a favourable environment. However, not all university libraries surveyed had postgraduate research commons.

#### **5.5.8.12 Printing and photocopy facilities**

FMS8 argued that printing and photocopy services need to be improved because students sometimes put money in the vending machines to buy printing credits but the credits were not reflected on the student account. Similarly, FMS6 mentioned that when printing documents money could be deducted from a student account without the documents having been printed. On the other hand, respondents mentioned that when making photocopies, paper jams occurred and students could not submit the work timeously. This was considered as a challenge since many machines were outdated, poorly maintained and there was a lack of staff to provide assistance.

### **5.5.9 Additional comments presented by focus group respondents**

Towards the end of the focus group discussion, respondents presented additional comments related to their information needs and seeking behaviour. Respondents suggested that various internal units could learn from the library staff how to welcome and support graduate students including international students. FMS8 stated that her supervisor went beyond providing academic support and had written a recommendation letter when the student was applying for a scholarship and the letter was very supportive. FDS7 noted that he had to pay a visit to the Student Counselling Officer to assist him with a stressful situation. The staff provided him with the necessary support and coping mechanisms. Furthermore, it was considered that the university website was an important source because its home page contained information relating to activities happening around the campus. Focus group respondents noted that some information resources accessed on the university website were outdated and it was in this regard that the focus group argued that the university had to ensure that available information resources are consistently updated.

### **5.5.10 Summary of focus group results**

The results of the focus group discussion with international postgraduate students revealed that respondents mainly focussed on their academic information needs. Respondents indicated that the ISO should systematically assist international students when renewing a study permit and applying for medical health insurance. Respondents further discussed major challenges faced when studying at the present universities. Respondents then provided suggestions to improve the service delivery at the university to meet both their academic and personal information needs.

## **5.6 Results from the interviews with the Heads of ISO**

It was worth noting that all surveyed South African public universities have International Student Offices (ISO) that are assigned the responsibility of ensuring that international students are sufficiently supported in adapting to a new learning and living social-cultural environment.

The results generated from the interviews with the HISO are systematically presented according to the order of the questions asked in the interview (Appendix 4).

### **5.6.1 General background information**

The University of KwaZulu-Natal has three ISOs that serve all five campuses including an ISO allocated to the Pietermaritzburg campus; the office at Howard College also serves the Medical School and the office at Westville campus also serves the Edgewood campus. On the other hand, DUT has one ISO available at the ML Sultan campus and it serves all DUTs campuses. The University of Zululand has one ISO located at the main campus and it also serves the Richards Bay campus. A semi-structured interview schedule guided the interview conducted at the universities surveyed in the study.

The interview with the HISO was divided into sections. The semi-structured interview schedule included 34 questions. Questions 1 and 2 covered background information related to the HISO who participated in the study. Questions 3 to 11 focused on services delivered to international postgraduate students. Questions 12 to 17 elaborated on cooperation between the ISO and other university internal units. Questions 18 to 23 explained the collaboration and liaison existing between the ISO and external service providers (stakeholders). Questions 24 and 25 commented on the policy document focusing on international students enrolled at the surveyed universities. Questions 26 to 28 highlighted the university support of the ISO to improve service delivery. Questions 29 to 34 focused on strategies used for effective dissemination of information services rendered to international students. Three Heads of ISO had participated in the semi-structured interview.

The section below presents the gender, length of service and frequency of assisting international students with the services offered by the HISO. The three respondents were assigned a code for the purpose of anonymity and confidentiality, namely HISO1, HISO2 and HISO3. Responses of questions 1 and 2 were depicted in Table 5.27 below.

**Table 5.27: Length of service and frequency of assisting students**

N=3

<b>Interviewees</b>	<b>Gender</b>	<b>Length of services</b>	<b>Assistance frequency</b>
HISO1	Female	Seven years	Very often
HISO2	Male	Twenty years	Very often
HISO3	Male	Five months	Sometimes

**Source:** Field data (2014)

Table 5.27 above shows that HISO1 and HISO2 had provided assistance to international students on a regular basis (very often) and this assistance may have been related to their length of service. These two HISOs had seven years and twenty years of experience respectively. On the other hand, HISO3 reported that his office had ‘sometimes’ assisted international students and this might reflect the short term period of five months since he has been assigned his position.

### **5.6.2 ISO services delivered to international postgraduate students**

The ISOs provide ongoing administrative support services to all international students enrolled at the surveyed South African universities. International students arguably have particular needs that differ from local student’s needs such as study visa-permit requirements, medical health insurance, English language proficiency concerns, foreign academic qualifications, family and travelling concerns, safety and security concerns, to name a few. In this context, ISOs play a vital role in collaborating with internal and external unit service providers to assist the international student community. HISOs interviewed in the study further provided the following responses:

HISO1 indicated that the assistance offered to international students required was challenging since some of their needs were common and other needs were particular and differed from one student to another. HISO1 argued that the common needs of international students related to securing a valid study permit, medical health cover from a recognised South African insurance

company that had an agreement with the university to provide medical attention to international students, a stable source of funding to support academic and living expenses, and renewal of a study permit before it expires. In addition, other services provided to international students were more social oriented than academic needs. These included international culture day that facilitates interaction and the creation of friendships between students on campus, and ISOs also provide the International Students Guides (ISGs) to support new international students at the start of each academic year.

HISO2 explained that there were holistic services available from ISO which were particularly designed for supporting international students. These services involve the assistance offered to these students when they arrive at the university. The delivery of services also continues during registration as the ISO supports them to secure international clearance certificates. HISO2 mentioned that the ISO has a goal to make international students feel welcome through campus tours and social events. HISO3 also outlined the general services that are provided to international students and these included services regarding admissions and other related registration services, accommodation support, interfacing with the Department of Home Affairs to renew study permits, and general well-being services, especial health care services.

#### **5.6.2.1 Awareness of ISO services by international postgraduate students**

Question 4 asked the HISO to indicate whether international postgraduate students were aware of ISO services. All interviewees indicated that these students were usually aware of ISO services given the requirement of the international clearance offered by the ISO in order to register at the surveyed universities. Therefore, an international student had to go to ISO to obtain the international clearance and take it to the relevant Faculty Office for registration. HISOs mentioned that some support services offered by the university internal units may need more clarification for new international students since they are not familiar with the host university. These included services related to registration, library resources, security office for student cards, and LAN facilities for Internet use.

### **5.6.2.2 Channels used to inform students about ISO services**

Question 5 asked the HISO to indicate the channels used to inform international postgraduate students about available services around campus. Respondents noted that the following channels were commonly used and these were the university website, international orientation programme, handbooks distributed during the registration process, and other units working in partnership with ISO around campus. Furthermore, HISO1 noted that a Wellness Day with health care providers was fruitful because students were able to discuss health challenges with health care professionals. HISO2 added that it was useful to provide notebooks distributed from ISO, computer LANs notices, communicating with students via emails, social networks such as YouTube, Facebook, amongst others. HISO3 further argued that information services were available on brochures and notice boards. However, respondents revealed that international students heavily relied on communicating with their colleagues and friends when looking for information services instead of visiting a specific office directly and asking for assistance.

### **5.6.2.3 Reasons for lack of awareness of ISO services**

It was important to point out that the availability of services is not enough without making people aware of the existing services. When answering Question 6, respondents provided three common reasons for lack of awareness of ISO services and these included lack of willingness to attend the orientation programme, preference of communicating with friends more than consulting the relevant university office, and lack of a culture of using university email services. Respondents discussed factors that hinder the awareness of ISO services and other university services as follows:

Failure to participate in orientation session was the main reason for an international student not being informed about activities taking place around campus. A small number of international students had actively joined other students during opening ceremonies organised under one umbrella known as an 'orientation programme'. HISO2 stated that during the orientation programme, the university initially invites all key service providers from both internal units and external service providers such as the Department of Home Affairs and medical health cover



insurance companies. If international students do not attend orientation, they are not aware of the importance of such services.

Respondents argued that international students suffer from a lack of knowledge or culture of looking for support/assistance from formal sources. This could explain the common culture of students for either preferring to stay silent or trying the easiest way to satisfy information need at the time the human need occurs. HISO1 argued that many international students come to university based on information gathered from a relative or a friend who previously attended the same university and this person will be their guide. However, a friend sometimes may not have particular information or may know little about a service. HISO1 added that some students would try looking for assistance from other sources without first seeking help from the ISO. This indicates that international students may start with informal sources and seek information from formal sources only after their information need has not been met. Typically, international students are expected to visit ISO on a regular basis but few of them do so. The majority of international students prefer to look for information from informal sources such as colleagues and friends.

The HISOs noted that many students including international students do not check their emails on a regular basis and this becomes problematic especially in a case where an email is sent to international students regarding an academic matter. HISO3 articulated that basically “there is no reason of not being aware of ISO services”. In this regards, HISO1 explained that ISO may send an email that is a reminder to renew a study permit in due time, but the failure to check email boxes may lead to the delay of renewing the important document including study permits.

#### **5.6.2.4 Services most utilised by international postgraduate students**

Question 7 asked respondents to highlight the services mostly utilised by international postgraduate students. Respondents commonly answered that the services mostly used by students involved attending the international orientation programme, securing international clearance for registration, applying and renewing study permits from the Home Affairs Department, and medical health insurance from medical health care providers that have an

agreement with the university. In this context, there were also services related to daily life activities and these were securing accommodation, counselling for family related concerns, and campus clinic for health matters or sports union for sporting activities.

#### **5.6.2.5 Main reasons for use of these services**

Question 8 complemented question 7 above. Question 8 asked respondents to indicate the basic reasons for the above services being most utilised. As was expected, responses generally reported that these services assisted with compulsory requirements for international students enrolled at South African universities. In this regard, respondents discussed the key reasons as follows:

HISO3 highlighted that international students have to formalise their official stay in the country (South Africa) and secure a study permit and medical health insurance in order to become eligible to register at the host university. Residence accommodation is also a crucial service in that when international students are applying for the first time, they generally do not know enough about the environment surrounding the university to be able to look for off-campus accommodation. Therefore international students need accommodation inside the campus where they can easily adjust to the new environment. It was evident that counselling services played a vital role for a large number of international students as they might likely feel depressed, homesick, and isolated at the new host university.

#### **5.6.2.6 Underutilised services**

Question 9 asked respondents to indicate services that they considered to be underutilised by international students. HISO1 and HISO2 commonly indicated that the orientation programme was not properly utilised given its important role of gathering together under one roof key service providers (both internal units and external stakeholders) and international students as users of information services. Another respondent reported underutilisation of admission services offered by the university because of a lack of coordination of these preliminary academic services. Furthermore, HISO2 mentioned that international students did not

efficiently participate in university special events including sports games and cultural days. They also rarely consulted the campus clinic and counselling services for health matters, while these services were available to all students.

#### **5.6.2.7 Reasons for underutilisation of these services**

Question 10 asked respondents to provide reasons for why the above services were underutilised by international students. HISOs provided three main reasons including late arrival at university, lack of awareness of available services and students were not familiar with certain services around campus, particularly the counselling centre. In terms of lack of awareness of existing services, respondents agreed that international students have to accept responsibility to actively participate in the orientation programme and other special events designed for their own benefit.

#### **5.6.2.8 Problems experienced by international postgraduate students**

Question 11 asked respondents to highlight the main problems experienced by international postgraduate students at their host universities. Respondents reported three major problems and these were delays in receipt of the necessary official documents, registration period for graduate students, and inadequate consultation. The delay of delivery of compulsory documents required for international students to register, for example, having to wait a long time for a study permit to be renewed by the Home Affairs Department or SAQA accreditation.

The registration period for graduate students is commonly extended and this may increase the number of international postgraduate students who have not participated in the orientation programme. As they can register at any time of the year they may miss the orientation programme. On the other hand, the international students do not regularly consult ISO and other formal university internal units. They might not be effectively supported by the ISO because they are visiting the office to look for help only when they feel pressured to do so. In this context, failure to keep in contact with ISO staff could lead to a communication gap between

the office and recipients of services because international students tend to consult inappropriate sources, while ISO could provide satisfactory support services to students. In addition, respondents outlined other problems which included lack of knowledge about location of ISO and poor guidance materials used to indicate directions around the campus. Some international students also faced problems related to conflicting activities such as trying to renew a study permit and applying for a medical aid certificate, while they are also busy with school tasks, especially graduates who are either searching for a research topic or writing a research proposal and thesis/dissertation.

### **5.6.3 Cooperation between ISO and other university internal units**

This section focuses on cooperation between ISO and other internal units. It discusses the nature of cooperation that exists amongst the university internal units and it presents common factors that could hinder effective cooperation between the university units when assisting international students enrolled at the university.

#### **5.6.3.1 Cooperation between ISO and other internal units**

Question 12 asked respondents whether there was cooperation between university internal units. All respondents explained that it is imperative for university internal units to work together because they are expected to provide interlinked services. Therefore, they all reported that there was strong cooperation between ISO and other internal units in a sense that they work collectively in order to achieve a common vision for the university as a parent organisation.

#### **5.6.3.2 Nature of cooperation among university internal units**

Question 13 further asked respondents to describe the existing nature of cooperation. HISO2 noted that the international orientation programme includes representatives from all university units and local students also participate. HISO3 explained that all international students are initially treated equally with the local students. Therefore all services are made available to all students without exception. It is important to add that international students to some extent get

some special support from the ISO. In addition, HISO1 indicated that orientation clearly facilitates the creation of friendships between all colleagues both local and international students, and positively allowed international students to feel warmly welcome at the academic institution. International culture day also introduced international students to a variety of social and cultural backgrounds that leads to a better understanding of other people's behaviour and assists dealing with challenges resulting from the surrounding new environment for international students.

#### **5.6.3.3 Factors hindering cooperation among university internal units**

Question 14 asked respondents to explain what factors hindered cooperation between the ISO and other university units. Respondents answered that typically there was open cooperation among all university units including ISO in terms of helping international students. However, some internal units might not respond to the invitation to special events taking place around the campus. For instance, HISO1 underlined that it is a bad habit that the "SRC is always invited to international orientation but seldom comes". However, respondents were generally satisfied with the close collaboration that existed between the university units in delivering services to the increasing number of international students.

#### **5.6.3.4 Assistance in obtaining university accommodation**

Respondents indicated that accommodation is very important for everyone. HISO2 discussed that ISO often facilitates international students' requests for accommodation within the university residences and this is supposed to become automatic once these students are accepted at the university they should be allocated a room at residence. HISO3 argued that ISO ensures that the Dean of Students is timely informed about accommodation needs of the international students. HISO1 explained that this is only possible at the start of each year when the ISO is allocated a specific number of residence places for postgraduates and undergraduates. The second semester is a challenge as ISO does not have any spaces except if some international students leave after the first semester, however this rarely happens.

### **5.6.3.5 Problems experienced by ISO when assisting students with accommodation**

It was revealed that the major problem experienced by the ISO when helping international postgraduate students to find accommodation was the large influx of international students and a shortage of university residences. Respondents particularly highlighted accommodation issues as follows: HISO2 argued that the university over subscribes when accepting a large number of international students. In this context, the university should ensure that students are well accommodated especially new international students who need to familiarise themselves and adjust to the new environment. HISO3 noted that “very little number of international students can be accommodated on campus residence halls”. HISO1 mentioned that insufficient places are allocated for international students and there are no clear institutional plans to address this accommodation matter. Therefore, each year university management admits many international students but there is always a shortage of accommodation and some measures have to be considered in order to increase the capacity of university residences.

### **5.6.3.6 Resolutions and suggestions regarding accommodation**

Respondents were asked about measures that could be put in place by the university to deal with the accommodation challenges faced by a large number of international students. Respondents provided the following responses. HISO2 maintained that ISO always engages with the Student Housing Office and they do come to some agreement in terms of accommodating new international students. Returning international students who have completed the university residence form before going home for the December vacation should not have a problem with securing accommodation. Alternatively, the cut-off date for confirmation of university residence might be extended for international students. The ISO and university housing negotiate with private landlords around the campus to accommodate international students. In this context, a certain number of landlords sign agreements with the university regarding the minimum facilities to be installed in their accommodation in order to ensure maximum safety and security of students, including international students who use private housing.

On the other hand, HISO1 noted that new residential space is needed urgently. The only option was that ISO has to refer international students to off-campus private accommodation when all residences were full which happens often. HISO1 reminded international students to consider searching for accommodation near campus in case they cannot obtain a place in residence. This was so that international students would be able to use available facilities at night including mainly library services and access to computers in the LANs. HISO3 further acknowledged that there was a large student infrastructure development project underway regarding residential issues. Therefore, on completion of this project, more accommodation would be available on campus and many more students will be accommodated at university residence including international students.

#### **5.6.4 Liaison between ISO and external service providers**

This section discusses collaboration and liaison between ISO and external service providers focussing on international students. It focuses on issues related to study visa-permits, medical health insurance services and actual measures to deal with related challenges.

##### **5.6.4.1 Study visa-permit services**

Respondents were asked to indicate the support services offered by the ISO to international postgraduate students during renewal of study permits. Respondents agreed that the ISO has developed a close relationship with the Home Affairs Department to deal with the many applications sent by international students. HISO1 and HISO3 mentioned that the ISO staff hand out copies of applications, email and phone the Home Affairs Department to enquire about delays and problems related to study permits. HISO2 explained that the ISO sends emails and makes phone calls to the Embassy Office in order to speed up applications for study permits applied for by international students.

##### **5.6.4.2 Problems experienced when applying or renewing study permits**

Respondents generally reported that the major problems consist of the slow processing and delays in renewing study permits. HIS3 initially noted that the process is slow when renewing study permits of international students. In as much as the ISO tries to follow-up on the renewal

of study permits for international students, Home Affairs Department is frequently characterised by inconsistencies in many procedures which cause delays. HISO1 further explained that various staff at Home Affairs Department treated international students differently. Some students have been turned away with “incorrect forms” and told to come back later or another day. The reception section does not provide receipts for applications or payments which should facilitate the follow-up process in the case of delays or the loss of documents submitted to the Department. HISO2 noted that delays and slow processing for renewing study permits are generally caused by constant changes in regulations and rules guiding the stay of foreigners in the country.

#### **5.6.4.3 Resolutions to study permit challenges**

Respondents provided the following suggestions. HISO3 mentioned that officials from Home Affairs are continuously informed about the slow pace of their processes and the negative impact of the delay for delivering a study permit to an international student. HISO2 added that ISO had improved communication with Home Affairs Departments at both Durban and Pretoria (head office). The ISO secured a personal address of a staff member to contact directly if it was a minor case to deal with, and this reduced the unnecessary waiting time. HISO1 highlighted that the problem lies with lack of knowledge within the university regarding international students and their problems. HISO1 added the university needs a person who has the knowledge and the passion to drive internationalisation and this could lead to proper leadership in internationalisation at the university to promote support services for international students.

#### **5.6.4.4 Medical health insurance services**

Respondents acknowledged that ISO maintained collaboration with medical health care providers to deliver effective medical health insurance services to international postgraduate students. HISO3 noted that international students are provided with brochures regarding medical aid services. HISOs mentioned Momentum (Ingwe) and CompCare who had agreements with the universities to provide medical health cover services for international students at universities. HISO1 indicated that two medical health care representatives come on



Fridays and Tuesdays respectively each week to consult with students. A medical health membership card may be collected during the consultation time. Students use this consultation period with the medical health consultants to discuss any medical health cover problems. The ISO also provides application forms and pamphlets including contact details for emergency cases. HISO3 also advised these students to subscribe to medical health cover from only these two recognised medical insurance companies that had signed an agreement with the university.

#### **5.6.4.5 Challenges experienced with medical aid services**

Respondents argued that challenges were commonly based on a lack of documentation required when applying for a health cover certificate. HISO2 noted that it is a compulsory requirement to present proof of payment of prescribed fees (premium) to the indicated bank account of the health cover insurance company. Some international students would sometimes submit forged immigration documents to the health cover company when they are applying for a health cover certificate. Problems arise when international students fail to renew their medical aid cover timeously. Requirements for the renewal are clearly stipulated in handbooks provided to students at the beginning of the academic year. It was also pointed out that University of Zululand is located far from town and major cities and this distance has a huge negative impact on access to proper health facilities for international students especially during emergency circumstances.

#### **5.6.4.6 Resolutions for medical health insurance challenges**

Respondents highlighted some measures that have been implemented to deal with the medical health cover problems experienced by international postgraduate students. HISO3 reported that more companies were invited to explain their health cover services offered to international students. They had distributed brochures and handbooks regarding available medical services. HISO1 highlighted that water marks were introduced to prevent forging of medical aid membership documents. Medical health cover alone is not proof of membership. The ISO requests an updated letter from medical health cover companies for registration. The ISO could

check on membership because only two medical health care providers had an agreement with the university to provide medical aid services to international students. HISO2 mentioned that there is a dedicated person to deal with medical aid insurance problems, especially detection of forged medical insurance documents which might be submitted by international students.

### **5.6.5 Policy document focusing on international students**

It was important to discuss the establishment of a policy document for international students at surveyed universities. This section discusses the existence and establishment of such a policy.

#### **5.6.5.1 Existence of a policy document for international students**

Question 24 asked the HISOs interviewed whether their universities had a policy document that could guide services provided to international postgraduate students. There was not a formalised policy document related to services offered to international students. Respondents argued that ISO had developed a handbook providing guidelines related to orientation, the registration process and general life queries while international students are studying at university.

#### **5.6.5.2 Importance of a policy document for international students**

Respondents recommended that having a policy document for international students would be good for international students as well as university management. This document should explicitly discuss guidelines and regulations that are there to be implemented by all concerned parties mainly the university and international students. Respondents further suggested that it would be better if each college had orientation and registration programmes for graduate students including international postgraduate students. This was because international postgraduate students registered throughout the academic year.

### **5.6.6 University support for ISO services**

This section presents the role of university support, as the parent organisation, to the ISO to ensure that services are effectively and efficiently offered to international postgraduate students. The university support focusses on funding the ISOs, provision of sufficient number of ISO staff, and provision of appropriate ISO amenities/facilities. They are discussed as follows.

#### **5.6.6.1 Funding support to the ISO**

Question 26 asked respondents to indicate whether funds received from the university were sufficient for the ISO to satisfactorily deliver services to international postgraduate students. It was revealed that UNIZULU had basically provided a reasonable budget to the ISO. Unfortunately, respondents highlighted that the ISOs at the UKZN were severely underfunded and the office did not receive part of the international levy. The ISO could only manage to fund a cultural day and an internal orientation programme. It was further explained that the ISO used to have masters and PhD support facilities but could no longer offer this service due to a shortage of funding allocated to the ISO. The HISOs noted that the continuous increase in the number of international students admitted to the university should result in an increase in their annual budgets. However, limited budgets have affected their services to international students.

#### **5.6.6.2 Provision of sufficient number of ISO staff**

Question 27 asked respondents to opine as to whether ISOs were sufficiently staffed to deliver efficient services to international postgraduate students. As was expected, all respondents observed that ISOs did not have sufficient staff to support the large number of international students. Particularly, HISO1 suggested that “if ISO wants to deliver a pick-up service all year round, it then needs a bigger budget allocated to this office” in a sense that the number of ISO staff be increased with the aim of delivering a quality service. HISO2 mentioned that a shortage of the ISO staff would be explained by the fact that there were always heavy workloads due to the small number of staff available to support a large group of international postgraduate students. Therefore, the university had to take action in terms of increasing the number of ISO staff to effectively serve international students.

### **5.6.6.3 Provision of ISO amenities/facilities**

Question 28 asked respondents to discuss whether ISOs had appropriate office amenities and facilities to deliver an efficient service to international students. These office's facilities included building space, office equipment and so forth. Respondents generally agreed that there was still a long way to go in order to improve available ISO amenities and they discussed this situation as follows: HISO2 pointed out that not only were human resources insufficient so was office space. Computers and other office equipment are always important and they need to be replaced after a certain period of time because they become outdated. HISO1 also mentioned that office space was inadequate. The ISO at the UNIZULU expected that their new student infrastructural development project which was under development during the study's data collection period would contribute significantly to the improvement of their ISO space and office equipment.

### **5.6.7 Marketing strategies used for delivery of information services**

This section reflects the communication channels used by the ISO and the problems experienced by the ISO with the channels used. It explains the use of the university website by ISO to communicate with international students. It further discusses the promotion of information services provided to international students, new initiatives regarding information services offered to international students, and additional comments of the HISOs.

#### **5.6.7.1 Major communication channels used by the ISO**

Question 29 asked respondents to discuss various channels used to communicate with international students who were using ISO services. It was revealed that participating in the orientation programme and using the university website were the two most convenient channels used to communicate with students. Respondents used other channels for communication and these included the university admission letter, international student clubs/forum, notice boards around campus, computer LAN notices, printed pamphlets and handbooks provided to students at the beginning of every academic term. It was also noted that social media especially

Facebook and YouTube have become powerful channels of communication between ISOs and international students. It was noted that smart phones have introduced suitable communication methods since the ISOs were able to create a group account which was shared with student representatives.

#### **5.6.7.2 Problems experienced by ISO with communication channels used**

Question 30 asked respondents to indicate major problems experienced when providing information services to international postgraduate students. Respondents outlined three features that were problematic when communicating with students such as implementation of university restructuring programmes, Internet shutdowns and inadequate consultation with students. In terms of an inconsistent information system, HISO1 noted that the college model in recent restructuring has made communication very difficult since many services have moved from one department to another without giving sufficient time to make people aware of these changes. HISO2 indicated that communication problems initially arise when the university Internet network/system goes down and lack of access to the Internet for off-campus students.

#### **5.6.7.3 The use of university website to communicate with internal students**

Question 31 asked HISOs to discuss the use of the university website when communicating with international students. HISOs agreed that the university website is essential when informing a large group of international students about services available at the university. They explained that ISO had a web page and it was accessible on the university website. HISO1 acknowledged that international section on the website may not be timeously updated because of a shortage of ISO staff employed at this office, but international students are always encouraged to send an email to ISO staff to request more details regarding information that is not on the website.

#### **5.6.7.4 Promotion of information services provided to international students**

Question 32 asked HISOs to highlight techniques used to promote information services available to international postgraduate students. Respondents believed that promotion of services went hand in hand with marketing the ISO services through various means of advertising in order to make international students aware of available relevant services. HISOs argued that ISOs should not only create awareness of their services but also had to accept the responsibility of ensuring students made maximum use of these information services. Therefore, they underlined that the use of emails typically had to be supplemented more often by face-to-face (word of mouth) as the latter facilitated deeper discussion and more accurate feedback at the same time. Face-to-face communication was generally used during meetings between the HISOs and international students. The HISOs focussed on ensuring collaboration with other university internal units assisted many international students in being informed of various events.

#### **5.6.7.5 New initiatives regarding services offered to international students**

Question 33 asked HISOs to discuss whether there were new initiatives concerning information services offered to international students. Respondents reported that there were attempts to standardise all information queries for first time international students through workshops with the faculty staff and the ISO, however the faculty staff did not attend the workshops. Respondents noted that ISO initiates and supports special events around campus which bring together all students and this facilitates friendships amongst local and international students.

#### **5.6.7.6 Additional comments provided by HISOs**

Question 34 asked HISOs to provide additional comments in terms of information services offered to international postgraduate students. HISO3 argued that although the ISO, with support from the university, has achieved a certain level of provision of services to international students, “much more has to be done yet”. HISO1 indicated that “a one stop service from ISO would be much better for service delivery”. This suggestion was based on the fact that

international students would feel more welcome rather than being constantly directed to many offices for instance, from the ISO to the Student Housing Office and from the Faculty to the library and vice-versa. The HISOs recommended that all international students should understand the value of the university events scheduled for them and need to participate in these events especially the international orientation programme and international cultural day.

### **5.6.8 Summary of interview results**

The results of the semi-structured interviews with the HISOs indicated that the HISOs who participated in the study were aware of problems experienced by international students. Respondents highlighted that the university as a parent organisation should provide sufficient support to this office such as increasing the number of staff, providing sufficient funds, and office space and equipment. On the other hand, the HISOs noted that international students must accept responsibility in terms of meeting university requirements for renewing the study permits before they expire and securing acceptable medical health cover insurance during their entire period of study. The HISOs recommended all international students should attend the international orientation programme. Students should also participate in other special events such as international cultural days to interact and create friendships with colleagues.

### **5.7 Summary of the chapter**

This chapter presented the results of the study. Research data were collected from three main sources, a self-administered questionnaire and a focus group discussion with international postgraduate students and semi-structured interviews with the HISOs. A total of 205 students completed and returned questionnaires from the three surveyed universities, ten students attended the focus group discussion, and three HISOs were individually interviewed by the researcher. Results from the focus group discussion and semi-structured interview supported the findings from the questionnaire. The results of the study have sufficiently answered the key research questions underpinning the study. The findings of the study will be systematically discussed in Chapter Six.

## CHAPTER SIX: DISCUSSION AND INTERPRETATION OF FINDINGS

### 6.1 Introduction

The purpose of the study was to investigate the information seeking behaviour of Humanities/Arts international postgraduate students in public universities in KwaZulu-Natal Province, South Africa. The three surveyed universities were the University of KwaZulu-Natal (UKZN), University of Zululand (UNIZULU), and Durban University of Technology (DUT). This chapter discusses and interprets the findings presented in Chapter Five. Quantitative and qualitative data were collected and analysed (Appendices 2, 4 and 6) to address the main research question (section 1.3) and sub-questions for the study provided in Chapter One (section 1.5). The study was guided by Wilson's (1999) model of information behaviour as a theoretical framework for this study.

Quantitative and qualitative data were collected through the questionnaires administered to the international postgraduate students. Qualitative data were gathered through interviews with the Heads of International Students Offices (HISOs) and a focus group discussion with international postgraduate students who did not participate in the questionnaire. In this regard, quantitative data were analysed by using SPSS and qualitative data were analysed using thematic content analysis. This chapter links the literature review components with the research results and this process was guided by the research questions underpinning the study and the selected theoretical framework of the study. It is important to note that appropriate, relevant data presented in Chapter Five have also been reproduced in this chapter to ensure completeness of the discussion and interpretation of the findings. The five research questions were as follows:

1. What are the information needs of international postgraduate students?
2. What information resources are used by international postgraduate students?
3. How do international postgraduate students obtain the information they need?
4. What problems do international postgraduate students experience in terms of acquiring information?



5. How can information services that are offered to international postgraduate students be improved?

## **6.2 Demographic profile of surveyed students**

Wilson's (1999) model of information behaviour logically guided this study. The first core variable of this model (section 2.3) consists of the 'information user' and it was then necessary to describe the student respondents involved in the study. International postgraduate students participated in the questionnaire were described generally based on gender, age range, level of study, type of registration, schools and departments, place of accommodation, country of origin, and English as a medium of instruction at surveyed universities.

### **6.2.1 General information**

The total number of surveyed students was 205 respondents. In terms of the gender of surveyed students, almost two thirds of the respondents, 128 (62.4%) were males and about one third of the respondents, 77 (37.6%) were females. This would suggest that more males undertake postgraduate studies than females. In terms of age range and level of study (section 5.2.7), of the 205 respondents, almost half of the 97 (47.4%) respondents were between 26 and 35 years old compared to 47 (22.9%) respondents that were 41 years and above. Within the age range of 31-35 years (52 respondents), half of them, 26 (50%), were registered for a doctoral degree and this was the largest group of respondents based on the age range of surveyed students. One respondent who was registered for a postgraduate diploma in Education also appeared in this age range of 31-35 years but he had already obtained a PhD degree in Political Science. This indicates that he wanted to become a qualified educator even though he held a PhD.

Of the three respondents that were 51 years and above, two of them were registered for a doctoral degree and one was registered for an honours degree. This was unusual since it is not expected that a person at this age will be doing an honours degree. This respondent expressed a willingness to keep studying until she receives a PhD degree. In addition, it was important to

highlight that there was no doctoral respondents found in the youngest age group of 21-25 years. There could be a number of different reasons for this such as delays in terms of finishing undergraduate degrees, limited financial and family support at this age.

In terms of types of registration, although there were a few surveyed respondents registered for part-time programmes by eight (3.9%), most 197 (96.1%) respondents were full-time. All three participating public universities had both full-time and part-time international postgraduate students. In terms of the schools or departments that the 205 respondents were in, of the six schools from UKZN-Humanities, most were in the School of Social Sciences with 100 (48.8%) and a few respondents were in the School of Applied Human Sciences with five (2.4%). Of the five departments from UNIZULU-Arts, a majority of respondents were in the Department of Information Studies with 11 (5.4%) and of the three departments from DUT-Arts and Design, a majority of respondents were in the Department of Media, Language and Communication with six (2.9%). Of the 205 respondents, majority of 119 (58%) were staying off-campus while minority of 86 (42%) students were staying in university residences. The main reason for not being accommodated in university residences was a shortage of rooms (section 5.2.13).

Ten focus group respondents participated in the study (section 5.5.1). Of the 10 respondents, 60% were males and 40% were females. Five (50%) respondents were in PhD programmes, four (40%) were registered for master's degree, and one (10%) respondent was doing an honours. All 10 focus group participants were registered as full-time postgraduate students. Three schools in the College of Humanities participated in the focus group included School of Social Sciences, School of Religion, Philosophic and Classic, and the School of Education.

### **6.2.2 Country of origin and home language**

Schoole (2006: 10) had revealed that the vast majority of international students (81.2%) enrolled in South African universities are from Africa. The international postgraduate students who participated in the current study were all from the African continent. The main motive for studying at a local institution is the high quality of education available in South Africa including the availability of qualified scholars to assist graduate students in the course of

conducting research projects and the affordable tuition fees compared to the high fees charged by universities in countries beyond the African continent. In this regard in terms of country of origin 29% of the surveyed students were from Nigeria and Nigerians comprised the largest group of the surveyed students. Mpinganjira (2011: 2182) noted that a large number of students from the SADC region were enrolled in South Africa because of proximity (short distance to travel), cultural and linguistic links between their home countries and host institutions in South Africa, and the good quality of education resources. As was expected, Zimbabwe accounted for 17.6% of the students and the other three countries nearest to South Africa namely, Malawi with 5.9%, Zambia with 4.9% and Lesotho with 3.9% of the surveyed students, made up a total of 32.3% of the surveyed students.

Of the 10 focus group respondents, seven African countries were represented within the focus group and two countries reflected more than one (10%) respondent and these were Zimbabwe with three (30%) and Rwanda with two (20%) focus group respondents. The other five countries were the Democratic Republic of Congo (DRC), Kenya, Nigeria, Tanzania, and Zambia.

Of the 24 home languages that were spoken by the surveyed students, Yoruba was the dominant home language spoken by 23.9% Nigerian students and it was followed by Shona spoken by one group of 12.2% Zimbabwean students while another group of 5.4% Zimbabwean students mentioned Ndebele as their home language. Kiswahili language was mentioned by 11.2% of the surveyed students and most of these respondents were from the East African countries, mainly Tanzania and Kenya. Chichewa was mentioned by 5.9% of students from Malawi. The other three home languages were mentioned by 3.4% of students each respectively and these were Bemba, Hausa and SiSwati. However, two international languages were home languages for a few respondents including 2.9% for French and 1.5% for Portuguese. It was important to note that in terms of a linguistic link, Ndebele is very similar to IsiZulu spoken by many local students enrolled at the surveyed universities.

### **6.2.3 English language as medium of instruction**

Stilwell (1991) recommended that information should be disseminated in one common understandable language depending on the group of users (section 1.3). English is the language of instruction at the surveyed universities and this is applicable to the majority of South African universities. Abdoulaye (2002) investigated the information seeking behaviour of African students in Malaysia and the study revealed that these students generally experienced English language proficiency problems at a foreign university. Similarly, the results of this study indicated that of the 205 respondents, 17.1% mentioned various English language proficiency problems and to some extent these language problems were interlinked. It was found that English language barriers were related to English as a second language, place of undergraduate studies (mainly outside South Africa), and English accents and speaking speed of lecturers or supervisors. All respondents were registered for postgraduate studies predominantly a masters or doctoral degree and as a result they were involved in research projects. Therefore, respondents highlighted that English writing and reading problems were related to academic studies because when writing a thesis or dissertation, a graduate student must read and make sense of many publications on the same research topic published in English. Spoken English and comprehension challenges were basically associated with listening and understanding English due to different language accents used by various lecturers or supervisors and subject librarians during consultation periods.

The study revealed that some international students were from countries where English was neither an official language nor a medium of instruction (sections 3.5.1 and 5.2.17). This situation was also highlighted in the research conducted by Foley (2010) which focussed on barriers faced by international students when using the academic library at the host university. It was important to identify the main measures applied in order to resolve English language proficiency problems. Two solutions that were used by many students who experienced English language challenges included attending English language classes and regular use of the reference collection resources specifically dictionaries, in the library. In addition, participation in academic writing skills workshops and consistent consultations with supervisor and lecturers were successful strategies used by students to develop their English language proficiency.

### **6.3 Information needs of international postgraduate students**

This section discusses the research data on information needs that were presented in Chapter Five (sections 5.3.1, 5.3.7 and 5.5.2). Butcher and McGrath (2004) and Majyambere (2012) pointed out that international students have both academic and personal information needs (sections 3.2.3 and 3.3). In order to collect and interpret the data regarding the information needs of the surveyed students, the questionnaire asked respondents to describe their academic information needs (section 5.3.1) and personal information needs (5.3.7). This was complemented by the focus group schedule which asked respondents to indicate information needs related to both their academic studies and personal needs (section 5.5.2). Wilson's (1999) model of information behaviour was selected as the theoretical framework for the study and guided the discussion of the research data related to the information needs of student respondents who participated in the study.

#### **6.3.1 Academic needs of surveyed respondents**

The study involved only postgraduate students studying towards degrees rather than postgraduate certificates or diplomas so academic needs revolved primarily around activities related to research projects rather than attending lectures (classes) which are routine tasks for undergraduate students. The second attribute of Wilson's (1999) model of information behaviour refers to information needs of the user/seeker. In this context, the information user/seeker refers to the international postgraduate students involved in the study.

##### **6.3.1.1 Preliminary academic procedures**

Respondents provided data about information needs related to the preliminary academic procedures that international postgraduate students have to fulfil in order to be eligible for enrolment at the present university (sections 5.5.2.1, 5.5.2.2 and 5.5.2.3). The first preliminary academic procedure involves admission to a postgraduate programme (section 5.5.2.1) and this procedure required efficiency in the networks used for communication between the school administrators and international students who applied for a place to study. It was found that

often although posted admission letters would be timeously sent to students, due to the limited access to facilities and communication difficulties for international students and lack of regular follow-ups on the part of the school administrators, the letters would either be received after a long delay or were lost without being able to retrace them.

The second preliminary academic procedure consists of accreditation of an existing degree (section 5.5.2.2) that is done by the SAQA. This is a necessary requirement for all international students who previously completed degrees outside South Africa and wanted to further their studies at one of the South African universities. Two main challenges were discussed by the surveyed students and these included the limited information available on the university website regarding the SAQA standards and the likely delays in terms of waiting time after submission of an original copy of the degree certificate. The SAQA accreditation is a compulsory requirement for the new international students to register for a postgraduate programme at the South African universities.

The third important preliminary academic procedure was the international orientation programme (section 5.5.2.3) offered by host universities, designed with the aim of bringing together international students and internal/external service providers under the same roof. This event should normally facilitate the introduction and discussion of available services for the welfare of international students registered at the university. After attending the orientation programme, international students are aware of available services. International students should also be able to identify external stakeholders who have agreements with the university management to effectively and efficiently provide services to the international students. It was revealed that during the international orientation programme (section 5.5.2.3), some campuses had organised a city tour to explore the most common tourist venues or places in Durban (while this service was not offered at the Pietermaritzburg campus of one of the surveyed universities). However, it was found that a large number of international postgraduate students frequently fail to attend the orientation either because they were neither well informed nor encouraged to participate, the orientation itself may not have been properly planned or students may have missed it due to their late arrival at university for the above mentioned reasons.

### **6.3.1.2 Information services related to the registration process**

Registration constitutes a fundamental need related to the academic studies of international postgraduate students (sections 5.3.1 and 5.5.2.4). The study indicated that international students had to follow many steps in order to register including securing a valid study permit, medical aid insurance cover, financial clearance, and international clearance. Therefore, the ISO had to verify all necessary documents presented by international students before the office could provide international clearance which was then submitted to the Faculty Office for registration. The student would then receive proof of registration that then allows a student to secure a card with access to the university facilities. Based on the results of this study, Table 5.12 shows that 73.7% of the students outlined information needs related to the registration process (section 5.3.1).

Focus group respondents further acknowledged that the registration process inevitably was the most fundamental academic need. They explained that registration for study was a priority when international students were adjusting to the new academic environment (section 5.5.2.4). According to the respondents this was the only way a student could effectively have access to the available university facilities on the campus. For instance, FDS9, a PhD student studying in Political Science, pointed out that everything at the university was based on being registered because after registration she was able to obtain a student card and could then access the university computers and more particularly to use the Internet facilities not only to read online resources for writing her research proposal but also to send and receive emails from her relatives. Registration also provides access to library resources for writing research projects. Leder and Forgasz (2004) noted that international students always have a desire to communicate with their family members back home whenever they get a chance. This indicates that international students needed to complete registration within the shortest period so that they could use the university Internet to interact with relatives. Similarly, this study revealed that communicating through the Internet service namely sending and receiving emails between international student and relatives formed the most important service that helped international student to reduce communication costs and emails assisted students to keep them in touch with relatives regardless of distance or time boundaries.

### **6.3.1.3 Finding a research topic and awareness of available academic resources**

Leder and Forgasz (2004: 196) argued that international students are likely to suffer some anxiety with the new academic environment in their host countries. Therefore, Leistman (2000: 369) recommended that in order to successfully assist the international student community, their perceived needs should be identified and satisfied proactively. In this regard, Wilson's (1999) model explained that only known or expressed needs are expected to be satisfied from information services delivered to the user/seeker (section 2.3). Fourie (2010) noted that information specialists make graduate students aware of their dormant or unknown information needs and then help them search for meaningful information to satisfy the needs (section 3.2.2). According to Catalano (2013), academics contribute more in terms of providing research information to new graduate students and of course this assistance can even contribute towards determining an appropriate research topic. Particularly, the study revealed that defining a suitable research topic within a specific academic discipline was an important part of the academic information needs (section 5.3.1) for international postgraduate students who participated in the study. Challenges related to defining a research topic were mentioned by 62% of the surveyed students. It is compulsory that a research topic should be researchable and it would need to make an academic contribution to the existing body of knowledge. Thus, international postgraduate students had to seek advice from supervisors and subject librarians when selecting a relevant research topic for writing their dissertation or thesis.

The international postgraduate students who participated in the study further highlighted that research resources are fundamental components of their academic information needs (section 5.3.1). Respondents acknowledged the use of both print and electronic resources when searching for academic resources (section 5.3.5.2) for the purpose of their studies. Initially, Holliday and Li (2004: 356) pointed out that information needs of students change over a period of time. Needing to find research resources for academic studies were reported by 76.6% of the surveyed students. It was important to note that challenges related to adjusting to the new academic environment could lead to inefficient ways of using multiple information systems provided to international students. This confirms the findings of the study conducted by Hughes (2005) who found that international students used different academic resources. Indeed,



Chowdhury and Chowdhury (2011: 29) noted that the information needs of students depended on the environment they were studying or living in and the manner in which the university was supportive of their academic performance (section 3.2.3).

It was found that print resources, largely books were used, while electronic resources such as library databases were used. In terms of technology changes, Case (2012: 138) recommended that people, especially graduate students should have the requisite skills for searching electronic resources through library databases. This was considered as a very important opinion for the purpose of the study in the sense that within this technological age, most academic resources are electronically retrieved through library databases according to the surveyed students.

#### **6.3.1.4 Writing a research project (thesis/dissertation)**

Fourie and Kruger (1995: 227) argued that motivations to satisfy information needs result in a particular form of human behaviour. Zuboff (1988: 75-78) maintained that people often tend to seek information based on their intellectual experiences. International students are not only motivated throughout to satisfy their academic information needs, but also during the searching process, they are involved in information seeking behaviour. International postgraduate students who participated in the study were asked to identify other appropriate academic needs (Appendix 2). Interestingly, two surveyed PhD students indicated that the research proposal presentation formed a key academic need as well as it preparing graduate students to move to the next step of writing their thesis or dissertation (sections 5.3.1 and 5.5.2.4). This opinion might be supported by the nature of the academic structure of a PhD degree where students are naturally expected to put together a good research proposal that provides a plan that guides the conducting of the research project.

Masters and doctoral students represented 87.8% of the surveyed students (section 5.2.7). Wilson's (1999) model argued that information need may be influenced by role of the user. Cogdill et al. (2000: 485) argued that graduate students mostly needed resources related to their particular research interests (section 3.2.2) at higher degree level. In this context, the study revealed that writing a dissertation or thesis was the most important academic need mentioned

by a majority of the surveyed students (section 5.3.1) and this was based on the primary academic role of these postgraduate students which was to conduct academic research at the masters and doctoral level of study.

#### **6.3.1.5 Issues around lectures, tests and assignments**

It was important to note that test and assignment related issues were mostly mentioned by honours students and a few master's students (section 5.3.1) and these were the least important components related to academic needs mentioned by 25.4% of the surveyed students. The other academic information needs of international postgraduate students were categorised as issues around lectures reported by 31.2% of the surveyed students. Examples included attending classes, forming group discussions, presentation of group work in the classroom, and tutoring undergraduate students enrolled within the same disciplines. Few masters students were registered for a course work programme and therefore a majority of the master's students who participated in the study were doing a research masters. This explained why master's students were occasionally attending group discussions for short periods with their lecturers and supervisors instead of attending regular classes. On the other hand, honours students principally attended lectures, wrote tests and submitted assignments on a regular basis during the course of their one year postgraduate study programme.

#### **6.3.1.6. English language competency**

It was important to indicate that English language competency was highlighted by 25.9% of the surveyed respondents as important for good academic performance (sections 5.3.1 and 5.5.5.3). The importance of having English language competency was similarly described by Mu (2007); Jeong (2004); Song (2004); and Trew (2006) as a key academic factor that frequently hinders the academic success of international students (section 1.3). This was supported by Andrade (2006); Han (2012) and Catalano (2013) who recently noted that international students face English language challenges and this hampers their academic studies (section 3.6.1). Particularly, Amsberry (2008) recommended that librarians and academics should use comprehensible English to effectively communicate with international students.

Although only 25.9% of the surveyed students acknowledged that English proficiency for their academic studies represented an academic need, the vast majority of 74.1 % of respondents did not report English language proficiency as a major academic need (section 5.3.1). This could be a result of the fact that a large number of international students enrolled in South Africa universities were from the SADC region where English is the first official language applied in their education system. Angola and Mozambique are predominantly Portuguese speaking, while the Democratic Republic of Congo (DRC) and Seychelles are predominantly French speaking. Another reason might be that the surveyed students were all postgraduate students that had already been at a university (for their first degrees) and many of them were previously exposed to English. It was revealed that a majority of respondents obtained their first degree here in South Africa and this is why they were familiar with the use of English for teaching and learning purposes at the present universities. English as a medium of instruction at the surveyed universities has already been discussed above (section 6.2.3). In this context, English received more attention in the study since it is imperative for effective academic performance not only for writing research projects but also all other subjects were taught in English. Indeed, English is used collectively as a medium of communication between international students and other people inside or outside the university. This means that the English language had assisted international students for both academic purposes and for social adjustment.

### **6.3.1.7 Information literacy and computer skills**

Digital technologies are frequently utilised for teaching and learning purposes at of the higher learning institutions and digital skills are needed by students. For instance, computers are now supplemented by the use of smart phones when communicating academic matters between lecturers/supervisors and postgraduate students regarding research projects. Typically, postgraduate students often present their research proposal at the UKZN via video conference and supervisors can follow and comment on proposal presentations without physically moving from one campus to another. Multiple academic resources for assisting with writing research projects are accessible from online sources and the library databases. Therefore, searching skills for novice researchers, including international postgraduate students, require regular academic assistance and periodic training supervised by information professionals to improve existing

knowledge regarding the use of the library databases. Therefore, international students highlighted information needs relating to regular library training sessions based on the use of library databases and searching skills of online resources available from Internet sources.

Czerniewicz, Ravjee and Mlitwa (2006) and Minishi-Majanja (2009) maintained that the development of information technology has changed searching strategies used by students when seeking information (section 3.6.2). The technological changes had revolutionised access to academic resources in the sense that successful searching demands that international postgraduate students be equipped with information literacy skills. According to Song (2004) and Yi (2007), the use of new technology might negatively influence information seeking patterns of international students, especially when these students did not receive appropriate training sessions. Naido and Raju (2012) argued that students should have computer skills (section 3.6.2). The necessity of having information literacy skills for academic needs was highlighted by 43.9% of the surveyed students (section 5.3.1) and it was also underlined by the focus group respondents (section 5.5.5.4). Moreover, focus group respondents mentioned that plagiarism and different referencing styles had created challenges for their academic studies when writing a thesis or dissertation (section 5.5.5.7). According to Pyvis (2002), the university has a responsibility to always define and explain thoroughly their plagiarism policy and related measures to new students every academic term (section 3.6.3). The study generally indicated that international postgraduate students especially those who completed their first degree outside South Africa require formal training sessions about academic ethical issues related to plagiarism and the use of different referencing styles.

### **6.3.1.8 Funding opportunities including bursaries and scholarships**

Funding opportunities were mentioned by 61.5% of the surveyed students as a major factor that may hamper the academic studies of international postgraduate students (section 5.3.1). It was further discussed and confirmed by the focus group respondents who comprehensively outlined the funding of their studies as a critical academic need for international students (section 5.5.5.5). Two main reasons mentioned by respondents were the high tuition fees paid by international students to universities and the annual increase of the international levy. The study

revealed that international students from the SADC region paid tuition fees similar to those paid by South African students. This has been confirmed by previous studies conducted within the South Africa context by Sehoole (2006), Kishun (2006), and Mpinganjira (2011). This study noted that the local rate of tuition fees was also applicable to international students from Rwanda who registered at the UKZN due to an agreement between governments. However, students from Rwanda also had to pay repatriation fees (US\$ 1000) like some other international students registered at South African universities. As funding support was very limited for international postgraduate students, the focus group respondents (section 5.5.2.5) were always enthusiastic to obtain any information related to available funding opportunities at universities.

### **6.3.2 Information services related to personal needs of students**

It was important to discuss the personal information needs of international postgraduate students that participated in the study (Table 5.21) since students are human and they have to consider everyday life matters while they were studying outside their home country. The personal needs discussed under this section included accommodation, financial expenses, health matters, family matters, travelling matters, cultural concerns, security services, and entertainment services (sections 5.3.7.1 and 5.5.2.5). It is important to highlight that one surveyed student suggested that a ‘religion issue’ must essentially be considered amongst other personal needs (section 5.3.7.1) of international students when studying in South Africa. Similarly, religion concerns were discussed by Sehoole and Lee (2014) as relevant concerns for international students to adjust to within South African universities.

Accommodation was the second major personal need mentioned by 64.9% of the student respondents (Table 5.21). Accommodation received almost equal attention with financial challenges noted by 66.8% of the student respondents (details provided below). The study found that accommodation was a priority for international postgraduate students (sections 5.4.2.3, 5.5.5.8 and 5.6.3.4) in the sense that international students were not familiar with the new environment so wanted to have university accommodation but there were a limited number of rooms reserved for international students in the residences. It was difficult and complicated

for many international postgraduate students who occupied private accommodation far from campus to use basic research facilities that were available on the campus particularly the library and computer LANs. In addition, transport costs from home to campus, security issues related to moving off-campus at night without support from security services (students living at the university residences are offered a security escort from the library or LAN to their residence at night) was one of the many accommodation concerns.

Financial expenses represented the most critical personal need mentioned by 66.8% of the surveyed respondents (section 5.3.7.1) and were also underlined by focus group respondents (section 5.5.2.5). Moreover, apart from financing their studies including the high cost of tuition fees and the high international levy as indicated above (section 6.3.1.8), the study found that there were other charges related to personal life needs to be covered by all international students while studying in South Africa. Similarly, this was revealed by two survey studies recently conducted in South Africa including Majyambere (2012) and Schoole and Lee (2014) who explained the funding challenges faced by international students. In this context, these extra financial costs involved the high cost of living in South Africa, fees for renewal of a study permit, annual medical health insurance expenses, long distance travelling fees and communication costs with relatives.

It was important to note that health matters inevitably reflect a major life concern and was mentioned by 61.5% of the surveyed respondents. It was revealed that international students similarly to local students often consulted university internal units that were in charge of providing health care services to students namely, Student Counselling and Campus Clinic. In addition, international students could also get medical support from medical health cover insurance services because they had to pay for medical aid cover at the beginning of each academic year. However, student respondents noted that the health insurance system had many problems including the expensive premiums, the monopoly of the two health insurers Momentum and CompCare, the long waiting period to obtain a medical aid card, and lack of efficient service especially during medical emergency circumstances.

In terms of travelling matters, 53.2% of respondents indicated personal needs related to travel when studying outside their home country. This study found that postgraduate students came from all over the African continent to study in South Africa. This explained the long distances they had to travel from their home country at the beginning of the year and a return ticket to return home during the December vacation. In other words, travelling costs increased financial challenges for these international students. Students indicated that there was a lack of transport facilities from the airport or bus station to campus for new international students on their arrival (section 5.3.4.1). In this context, the interview with the HISOs pointed out that some services should be provided to international students (section 5.6.2) including travel and accommodation arrangements prior to arrival, transport arrangements from the airport or bus station to campus, and direction to any office that students may need assistance from.

The study also discussed issues related to family matters which were mentioned by 47.8% of the surveyed students. Many student respondents were mature enough to have a family to take care of partners, children and sometimes their elderly parents back home. These students had the responsibility of balancing their academic work and family responsibility. The surveyed students in many cases communicated with their relatives through the Internet (emails) and communication fees were also involved as they often made telephone calls to relatives to keep in touch. Similarly, Leder and Forgasz (2004) explained that international students experience lack of interaction with their relatives because of the long distance (section 3.3). In many cases international students then prefer to communicate via email or social media with their relatives on a regular basis.

The study noted cultural issues in relation to personal needs which were mentioned by 40.5% of the surveyed respondents. The surveyed students indicated the existence of diverse cultural backgrounds but they were happy to create friendships with local students and maintain interaction between themselves. The friendship element was also outlined by Bradley's (2000) study which investigated mental health needs of international students and Ujitani's (2006) study which examined intercultural relations development between Australian and Japanese students in Australia (section 3.6.4). The study shared the same findings with Williams and Johnson's (2011) study which investigated multicultural attitudes and friendships of

international students. They discussed that universities should promote special events since these bring all students together and promote friendships (section 3.6.4). This opinion was further supported by the interview results gathered from the HISOs (section 5.6.7.5) and it was explained that one of the initiatives surveyed universities was the promotion of a cultural day.

Another personal need highlighted by 34.1% of the surveyed students referred to security services. Respondents mentioned two major issues related to poor security services and these were that some security staff members on campus were not friendly and could not provide effective services and this led to the students waiting in long queues in order to obtain a student card to access university facilities (section 5.3.4.9). For the security services, the study found that surveyed students were concerned about using the library and LANs after hours especially if they were accommodated off-campus (section 5.5.5.9). In terms of entertainment services, 27.8% respondent students noted that recreational services had a positive impact on their personal needs. It was revealed that international students like other South African students benefited from available sporting activities that were provided by the Sports Union Centre.

#### **6.4 Information seeking behaviour of international postgraduate students**

Wilson (2000: 49) defines information behaviour as “the totality of human behaviour in relation to sources and channels of information, including both active and passive information-seeking and information use” (section 1.10.4). Wilson (1999: 251) provided a useful diagram (Figure 2.1) of the information behaviour model which guided this study and information seeking behaviour was a core attribute of the model applied in the study (section 2.3). This section covers the active and passive information seeking behaviour of international postgraduate students, sources consulted for both academic and personal needs, usefulness of information used when satisfying the perceived needs of students, and problems experienced while seeking information.



#### **6.4.1 Active and passive information seeking behaviour**

Wilson (2006) described information seeking as a fundamental component of information behaviour patterns and it involves different activities that people follow to seek, use, and share information within all possible perspectives. According to Leckie (2005), information seeking might frequently be influenced by the awareness of information and the sources of information being used. Fourie (2006) notes that the information seeking process basically involves both active and passive behaviour alternatives (section 1.2).

International postgraduate students had actively consulted with subject librarians as information specialists for research information. This confirms the findings of a survey conducted by Tahir, Mahmood and Shafique (2008) which showed that subject experts frequently provide academic support to both students and academics (section 3.5.3). Their study revealed that subject librarians were the main source of research information. Subject librarians offer support to academics as they are information professionals. This explains the notion that subject librarians strengthen the liaison between the faculty or department as an academic unit and the library as university support unit. FMS6 noted that subject librarians were very supportive when helping students with searching for relevant academic resources for writing a thesis and checking for proper referencing styles. International students consulted their lecturers and supervisors on a regular basis to satisfy their academic information needs. The study found that active seeking behaviour patterns notably resulted from specific needs involving the use of formal sources such as consultation with the ISO for applying international clearance, financial advisor for acquiring proof of financial clearance and Faculty Office for registration purposes.

It was observed that students involved in study actively invested more effort in seeking relevant information services from formal sources predominantly lecturers/supervisors and subject librarians in order to improve their academic performances. In other words, the surveyed students were more actively involved in the information seeking behaviour related to academic purposes when compared to the number of activities carried out in relation to everyday life needs. The study confirms the findings of Savolainen's (2010) study which noted that there were the work-related seeking patterns and these represented academic activities especially

writing thesis or dissertation while non-work or everyday life information seeking (ELIS) represented personal needs such as family matters, health and travelling services for the purposes of the study. Therefore ELIS patterns were also meaningful in relation to the surveyed students involved in the study since they had many personal needs to satisfy when adjusting to their new academic and social environment in South Africa.

Moreover, Wilson (2006: 660) noted that people, including international students often seek information from other people and this process is referred to as what Wilson called 'information exchange'. According to Wilson's (1999) model, information exchange tends to initiate the element of reciprocity but in relation to the present study, it was found that the notion of reciprocity was of paramount value among international students and their fellow students in terms of sharing available information. This explained why surveyed students could passively obtain information services when interacting with informal sources predominantly relatives, colleagues and friends or while browsing Internet sources for multiple purposes. To Savolainen (2010) such seeking activities feature ELIS patterns. Mortenson (2006) revealed that Chinese students were involved in self-coping seeking behaviour when enrolled in the USA universities.

This study found that the surveyed international students enrolled at South African universities were involved in information seeking behaviour patterns that often showed a preference for individual consultation with formal sources based on a particular need and social interaction collectively with colleagues and friends. On the other hand, the element of reciprocity was not a major consideration between international students and supervisors/lecturers or subject librarians. The reason might be that these students had basically asked for academic support from the information professionals and received useful resources, and the information professionals including academics and subject librarians were there mainly to disseminate the necessary academic resources and information to students. The information seeking behaviour patterns were based either on individual student requests regarded as the active information seeking behaviour or when information professionals found information on behalf of international postgraduate students and this reflected the passive information seeking behaviour for learning and writing research purposes.

#### **6.4.2 Sources used for academic and personal needs**

Wilson's (1999) model of information behaviour explains that when seeking information, people may use more than one source to satisfy information needs by either consulting only one source or using many sources. Marouf and Anwar (2010) delineated that Dervin and Nilan's (1986) information seeking behaviour model basically contained features of consulting multiple systems and other sources of information. Similarly Case (2012) described that Leckie, Pettigrew, and Sylvain's (1996) model of information seeking of professionals had also discussed and supported the use of many sources of information. This means that international postgraduate students had sought information through multiple sources. International students could generally start from one source and if there was a failure or partially satisfied need then they would look for another source in order to fully satisfy a specific need.

It was important for the purpose of the study to recall the following particular responses from surveyed students: respondent S117 stated that "my supervisor will advise you where you will get the necessary help". S3 argued that "for family, financial, and travelling issues I consulted my family members especially my mother". Furthermore, S175 noted that "I found my own way around issues most of the time or with help from friends. There were occasions when my Head of Department would be great help to me, especially for accommodation issue". In addition, respondent S22 argued that "I used friends who were in South Africa to help me seek for accommodation. But after my arrival, I found ISO very helpful in getting accommodation in an environment with good security". Therefore, international postgraduate students mentioned multiple sources that had been relevant for acquiring necessary information. Sources of information alternatively consulted by surveyed students included on the one hand formal systems and informal sources on the other hand. Sources also involved both university internal and external sources of information. The study provided a comprehensive discussion of sources consulted by surveyed students based on data presented in Chapter Five (sections 5.3.2; 5.3.7.2 and 5.5.3) and literature related to the study (sections 3.4.1 and 3.4.2).

According to the literature review, Abdoulaye's (2002) study identified fundamental sources of information consulted for academic studies by African international students enrolled in

Malaysian universities (section 3.4.1). These sources largely involved library books, electronic journals, online databases, Internet sources, the OPAC, lecturers and supervisors, and consultation of fellow students. In terms of sources consulted by surveyed students, the findings of this study were fairly similar to Abdoulaye's (2002) study. Both studies focussed on international students from the African continent. However, Internet sources and online databases were essentially used at a higher level in this study compared to Abdoulaye's (2002) study. The core reason might be that based on technological changes over a period of time that has led to a move from the use of print materials to the use of multiple resources more recently accessible online when compared with Abdoulaye's study conducted more than a decade ago.

Results indicated the use of multiple sources by international postgraduate students at universities. The top two sources used for academic purposes were lecturers or supervisors and Internet sources. It is important to recall that the surveyed students were all registered at the postgraduate level of study meaning that a vast majority were primarily involved in research activities especially the writing of a thesis or dissertation. Lecturers and supervisors are considered as the cornerstone of teaching and learning in higher education. Therefore, academics should explicitly contribute to the improvement of the educational quality of graduate students, including international postgraduate students (section 5.5.3.5). Graduate students should be knowledgeable and competitive enough at regional and worldwide level. Minishi-Majanja's (2009) study revealed that South African universities focus more on increasing highly qualified and employable graduate students.

The Internet was a powerful tool to search for academic resources for the purpose of this study. This confirms the findings of Junni's (2007) survey of the effect of the Internet on information seeking of master's students for academic research (section 3.4.2). Internet facilities contribute greatly to teaching and learning purposes. Supervisors had frequently directed their graduate students to useful library databases for searching for online articles related to specific research interests. Access to the Internet provided an extra advantage for students to remotely find relevant research resources because they were able to use the Internet and browse the online library and other resources anytime and without having to be in the library. For example, one respondent underlined that multiple electronic materials were accessible from the Internet

(section 5.5.3.7) and therefore, she frequently searches through remote access to the library databases and browses the Internet online sources either from the LANs or residence room as a result of wireless access available in the university residences.

The next three major sources almost equally consulted for academic studies by surveyed students included the ISO, School/Faculty Office and colleagues/friends. The ISO played a vital role in terms of serving international students and it worked collaboratively with other university units and external service providers. Surveyed students had frequently used the School/ Faculty Office not only for registration but also for other academic related services (section 5.5.3.2) such as applications for the ethical clearance, being allocated a supervisor, and proof of registration often required by sponsors when funding studies, to name a few. Furthermore, surveyed students largely consulted colleagues and friends for academic needs. International postgraduate students were in a new academic environment and they were far from their relatives. This might be the main reason that respondents mentioned fellow students as major sources of information. Another reason might be that when international students interact with other students (section 5.5.3.6); they freely understand each other and this may have led to easier access to information due to prompt feedback from their colleagues/friends. According to Wilson (1999), this refers to the element of positive exchange of information that happens in most cases when people (students) that are on the same level of profession, in this situation educational level (postgraduate) could frequently exchange accessible information for decision making or solving a problem.

International postgraduate students mentioned the use of Google Scholar when searching electronic resources for academic purpose (section 5.5.3.8). Google Scholar is a subset of the more scholarly literature on Google (search engine). FDS4 noted that Google Scholar was useful in searching electronic information for research purposes. It was important to understand that Google in general does not provide access to scholarly full-text document while some accessible academic resources available on Google Scholar are subscribed to by the university and are downloadable in full-text. In other words, Google Scholar provides resources that have authoritative elements, while electronic resources merely published on Google may not be accurate and appropriate for academic purposes since everyone has the ability to publish

information on Google without any form of control. It was appropriate for novice researchers particularly these postgraduate students, to focus on the use of Google Scholar because some of them might have had limited ability to select and evaluate available sources from Google for academic purposes. The study revealed that students had consulted both Google and Google Scholar and were not sufficiently informed of the difference between Google and Google Scholar. This confirms the findings from Riahinia and Zandian's (2008) study related to popular search engines used by postgraduate students.

International students had to consult some external official departments in order to obtain compulsory documents requested by the university in order to legally study in South Africa. It was in this context, surveyed students had consulted the Home Affairs Department for renewal of a study permit, medical health insurance providers to receive medical aid cover and the Embassy office for obtaining entry permission to come to South Africa. On the other hand, international students similar to South African students had benefited from access to common services offered to all students by the university internal units (in addition to the ISO) and these included (in descending order of important) computer services, student funding office, student housing office, student counselling, security services and SRC. Surveyed students also indicated the use of the international student's forum and student campus clinic. Surveyed students noted that university internal units were regarded as sources associated with the provision of trustworthy information (section 5.5.3.2) and students used different internal units depending on the nature of the information needs.

The Internet was also an important source used by the surveyed students for both academic searching and social interaction (sections 5.3.2 and 5.3.7.2). In terms of everyday life needs, the Internet was the quickest and most affordable way of communicating with relatives back home especially via emails and social networks (section 5.3.7.2). The Internet also assisted international students to follow news about political and socio-economic conditions either locally or internationally. The Campus Clinic and Student Counselling Centre were sources mainly consulted for health services. The Campus Clinic provided medical consultations and provided referrals to other medical specialists based on the condition of the student patient. In addition, the Student Counselling Centre provided psychological support. For example, one

student respondent (section 5.5.9) preferred to consult a counselling officer because he would be able to manage his stress after receiving professional assistance from a qualified counsellor. He added issues related to isolation and homesickness could also be handled since international student would be provided with coping mechanisms to deal with the isolation and homesickness.

### **6.4.3 Usefulness of sources used by international postgraduate students**

Wilson's (1999) model of information behaviour indicated that the use of information may sometimes fail to satisfy user needs but the available information may have potential value for the need of another person. In this situation, the information will be transferred to that person who can use it in order to achieve a particular goal or satisfy a specific need (Wilson 1999: 251). According to Ives, Torrey, and Gordon (2000) and Rioux (2005), the process of sharing information reflects a natural aspect of human behaviour. In most cases, the study revealed information needs related to academic studies. International postgraduate students discussed the usefulness of sources consulted for both academic studies (sections 5.3.3 and 5.5.4) and personal needs (sections 5.3.7.3 and 5.5.4).

For academic purposes (section 5.3.3), it was found that the most successful sources were lecturers/supervisors for research and supervision matters, while academic librarians were helpful not only for improving knowledge or the information skills of international postgraduate students (training sessions) but also when searching for academic resources from multiple locations especially use of the library databases. Although academic librarians initially took sixth position in terms of sources consulted (Table 5.13), however in terms of ranking the usefulness of sources used, librarians ranked second regarding academic support offered to international postgraduate students (Table 5.14). Consulting the Faculty Office and communication with colleagues and friends were almost equally ranked by international postgraduate students as the most helpful sources and this could indicate simultaneous use of both formal and informal sources to satisfy the student academic needs. The least three sources ranked by student respondents in terms of usefulness were the Student Funding Centre, the Student Counselling Centre and the SRC (section 5.3.3). The reasons for such rankings were

presented in Chapter Five (sections 5.3.4, 5.3.7.4 and 5.5.5) and are discussed below (section 6.4.4).

#### **6.4.4 Problems experienced by international students when seeking information**

Many problems were outlined by international postgraduate students in relation to searching information for their learning and research purposes. Hanassab and Tidwell (2002) noted that international students have different backgrounds and they then experience different needs and multiple problems at university. In this study, the challenges experienced by the surveyed students predominantly included limited research skills and critical analysis, the level of English spoken by academics and some technical terms used by subject librarians, new teaching and learning methods, and various searching styles. On the other hand, international students highlighted factors that had affected their social adjustment to the new environment. These factors involved difficulties in creating friendships with some South African students because of their xenophobic behaviour towards international students and most local students spoke IsiZulu (local language). Students from neighbouring South African countries found it much easier to adjust and integrate in South Africa than students from other African countries. For example, students from Zimbabwe who speak Ndebele were easily accommodated by local people even outside of campus because Ndebele and IsiZulu were similar so communicating with local students was easier for these students.

Thomson, Rosenthal, and Russell (2006) noted that the length of stay constitutes a meaningful variable for positive adjustment (section 3.5.2). For the purpose of this study, staying a few years in South Africa improves the possibility of understanding and communicating with local students in their local languages or could increase the awareness of cultural norms and facilitate social adjustment. On the other hand, the study indicated that colleagues who had been in South African for a length of time were sometimes not sufficiently informed and they could provide incorrect information instead of guiding students to the right sources. Colleagues often do not admit a lack of necessary knowledge about a particular service to avoid embarrassment. International postgraduate students also noted that their fellow postgraduate students were also



too busy with their own studies that they had no time to be of assistance to the surveyed students.

The study noted that searching for information and the evaluation of online resources requires certain knowledge and skills in terms of information skills and the ability to effectively browse the Internet resources. Ngulube (2010), Mawindo and Hoskins (2008), Lwehabura and Stilwell (2008) indicated that generally a lack of information literacy skills on the part of students leads to inadequate use of electronic resources at higher learning institutions (section 3.5.2). The study confirms the findings revealed by Gammon and White (2011) and Dadzie's (2005) studies that indicated a lack of information literacy skills (section 3.5.2). The study agreed with Lavoie, Rosman, and Sharma (2011) and Gerdy's (2001) results which found that there is always a necessity to design and provide relevant library training sessions for the searching and evaluation of online resources (section 3.5.3). The study concurs with Mostert and Nthetha (2007) and Olen (1995) who suggested that librarians in South Africa have to always remain trained and updated regarding the use of technology and advanced searching strategies since they need to impart this knowledge when they train students.

The Internet is consistently used by academic researchers and novice student researchers when searching online resources. However, it is common for students to experience a lack of searching skills and according to DaCosta (2001), students are predominantly regarded as the 'Google generation' (section 3.5.3). Although, the study indicated that many surveyed students had attended library training sessions related to searching and using online resources from the library databases and the Internet (website sources), some of the new international students were not able to systematically search and evaluate online resources for academic purposes. This confirms the findings provided by Hadebe and Hoskins (2010) and Soyizwapi (2005) whose studies found that postgraduate students surveyed at the University of KwaZulu-Natal made use of search engines using trial and error methods. Similarly, Nkomo's (2009) study revealed that students often sought information from the Web using trial and error. Nkomo's study focussed on a comparative analysis of the Web information seeking behaviour of students and staff at the University of Zululand and the Durban University of Technology.

International students frequently consulted the ISO for meeting basic requirements in order to study in South Africa. Students mentioned major problems experienced in relation to the use of ISO. These problems included the lack of awareness about the ISO services, limited number of staff to serve students on a regular basis, inadequate supports for renewal of study permits from the Department of Home Affairs, and the high cost of the international levy which kept increasing annually. Students were also unhappy about the ISO agreements with two medical health insurance companies. This was based on the fact that there was no open competition in terms of providing insurance services to international students and consequently the monopoly of the two medical aid insurers led to poor service delivery, delays in receiving medical aid cards, confusion regarding which hospitals to visit for medical attention, and high medical insurance costs charged by the Momentum and CompCare companies.

International students also mentioned problems regarding services provided by the Faculty Office. The problems included the limited number of faculty staff, lack of liaison with the Home Affairs Department regarding study permit concerns, and lack of support in terms of following up on applications for SAQA accreditation. Applications to SAQA had often delayed the registration of many new international postgraduate students since the SAQA accreditation was compulsory for all new international students. Furthermore, the surveyed students highlighted accommodation problems predominantly involving insufficient rooms reserved for international students based on a limited list of rooms reserved for the ISO by the Student Housing Office, lack of transit rooms for new international students and issues related to the confirmation of residence rooms for returning international students. In addition, private accommodation rooms were essentially very expensive and generally far from campus and this could limit access to university facilities such as the use of library databases and Internet sources from the LANs; and increased the transport costs and security problems (travelling at night for students). Students that resided at private accommodation had limited time to use the Internet facilities that were only accessible on campus and students could not benefit from the wireless facilities available at many university residences.

International students mentioned key problems regarding consultation with the Student Funding Centre, Student Counselling Centre and the SRC (sections 5.3.4 and 5.3.7.4). These problems

were the lack of funding opportunities at surveyed universities including bursaries and scholarships or even university loans which are basically available to South African students only (sections 5.3.4.6 and 5.5.5.5). Many international students were new in South Africa and some of them were not familiar with student counselling services (section 5.3.4.7). This was in line with the results of Yi, Lin, and Kishimoto's (2003) study which noted inadequate use of counselling services by international students (section 3.5.2). The SRC was not actively attending to the needs of international students (sections 5.3.4.11 and 5.5.5.10) since the SRC dealt with concerns relating only to local students, while international students were expected to seek help from the ISO.

Security of students is always important and in most cases this was associated with accommodation and living at a distance from campuses (section 5.5.5.9). However, the lack of security was not only mentioned by students staying in private accommodation but also some security concerns were mentioned by international students residing in university residences. It was explained that some lectures were offered during the evening period and this was problematic for female students in terms of returning to places of residence after class. For instance, one respondent was accommodated at the Steven Biko campus residence and she had to attend evening lectures at the City campus and it was very dangerous to cross an open market alone at night from the lecture hall to her residence (section 5.3.7.4). This explained the limited capacity of the universities to accommodate students within the same campus where they had to attend lectures. Interestingly, students mentioned that the installation of wireless access in the university residences had significantly decreased the theft of laptops and other important property of students (section 5.5.5.9) since many postgraduate students preferred to work from their own rooms at the university residence, especially during the night and weekends.

## **6.5 Use of library by surveyed students for academic purposes**

The study indicated that all 205 (100%) international postgraduate student respondents used the library resources including print and electronic resources. In terms of having access to these library resources, students explained that they had accessed the library resources physically and remotely. It was therefore important to discuss the different library resources and services used

by students for academic purposes, and then provide and interpret the problems experienced by surveyed students when using library resources and services.

### **6.5.1 Library resources and services used for academic studies**

Yi (2007) noted that some demographical factors such as gender and age make no difference in predicting library use by international students. However, Majyambere (2012) outlined different motivations for library use between undergraduate and postgraduate international students. This study indicated that international postgraduate students had used both print and electronic resources available at university libraries. This confirms the general opinion held by Stilwell (2010) who noted that graduate students who are enrolled at South African universities largely consult library resources, both print and electronic resources, to meet their academic obligations. The findings indicated that the two most popular groups of library resources used by international postgraduate students were online databases mentioned by 94.6% of the students and print resources mentioned by 86.8% of the students.

Postgraduate students including international students are offered access to the subscribed library databases for academic purposes. They can use these library databases either by physically visiting the library or through remote access. The print resources most often used by surveyed students were library books since printed journals were either outdated or not available at all, and in many cases international postgraduate students preferred to consult the online journals which provided recent information to write their theses or dissertations.

International postgraduate students frequently used the OPAC when they were searching for printed books available within the university library. The OPAC searching was important in terms of time management and incurring minimum transport costs because students could make a list of relevant research methodology books available on shelves before visiting the library. Similarly, surveyed students preferred to consult electronic copies of theses or dissertations uploaded onto the library home page in pdf format since these electronic resources had options to open full-text which could be emailed to a personal email box or saved onto a movable hard drive for future use instead of borrowing the hard copy. Students noted that there was only one

copy of the printed thesis in the library to share. Students also mentioned that the printed copy of the thesis was often too heavy to carry around.

Library services mainly used by surveyed international students involved printing and photocopy services, short loans/academic reserves, interlibrary loan services, reference collections (dictionaries and encyclopaedias) and sometimes discussion rooms located within the university library. International postgraduate students would print some academic materials for their learning and research purposes, usually those students who had limited access to Internet facilities (off-campus). They also mostly made photocopies of academic reserve materials since students were not allowed to borrow and take these materials out of the library during the day and for limited periods after hours and at weekends. However, students highlighted that print and photocopy services were very poor in the sense that these services were not available on a regular basis. In terms of interlibrary loan services, some international students were not familiar with such services. Students also complained about delays in receiving materials borrowed through interlibrary loan, and were given a short period to use these resources and there was often a lack of a renewal option.

International students highlighted the use of dictionaries for improving English language competency, but many surveyed students reported lack of awareness regarding the availability of reference collections in the library. In addition, honours students had utilised the library discussion rooms more than masters and doctoral international students. The reason for this was that honours students often had group work to discuss including assignments and preparation for tests while masters and doctoral students had individually consulted their supervisors when writing their thesis or dissertation. As was expected and indicated earlier on, international postgraduate students frequently consulted subject librarians for help with searching electronic resources from the online databases and academic resources published on the Internet. This academic assistance was not only limited to finding online resources but subject librarians also helped student researchers to critically analyse and evaluate relevant online resources based on the student's personal research interests.

In terms of developing awareness of the library resources and services, international postgraduate students largely consulted three sources namely their lecturers and supervisors, communication with fellow students, and used the university library websites. Lecturers and supervisors recommended students to use particular library books or specific journal articles accessible from the library databases. Supervisors would also refer postgraduate students to subject librarians for help with searching online resources recently published. The new international students were also introduced to interlibrary loan and short loan services by subject librarians. In addition, colleagues and friends were the most accessible sources of information because they were always around and they could inform new international students about the library resources and services. It was understandable that international students had to visit library websites often for academic purposes. Library websites are used for marketing library resources and services, and they also assist students in obtaining the necessary information for their studies. Furthermore, international postgraduate students became aware of library resources and services during the library orientation programme and when referring to library guides typically available inside the library building and from the library website.

In terms of usefulness of library resources (sections 5.3.5.4; 5.3.5.5 and 5.5.8), printed books were the most useful print library resources mentioned by 90.8% of the respondents while printed indexes and abstracts were the least used library resources mentioned by 49.8% of respondents. The reason for this was that some international students were not aware of or interested in using abstracting and indexing resources, while print books were trustworthy and dependable resources for a literature review and research methodology. On the other hand, online databases were the most used electronic resources by 92.1% of the respondents, followed by the use of electronic journals and library website mentioned by 91.2% of the respondents for each respectively. This confirms Wilson's (2006) opinion that during the information seeking behaviour of literate people, including international postgraduate students, electronic resources play an important role. Electronic books were the least preferred electronic resources mentioned by 70.7% of the respondents due to a lack of downloadable full-text.

### **6.5.2 Problems experienced when using library resources and services**

The study revealed that international postgraduate students were not fully aware of and familiar with all available library resources and services (sections 5.3.6 and 5.5.5.2). This explained the lack of familiarity with services such as interlibrary loan and the OPAC. Kuruppu and Gruber (2006) and Nwagwu (2012) agreed that lack of awareness of library services has a negative effect on the information seeking behaviour of students (section 3.5.2). In keeping with Wang's (2008) findings, the study suggested that proper library marketing is required with the aim of accommodating new international postgraduate students. The reason for this was that the awareness of available library resources and services would promote and enhance the maximum use of academic resources for research purposes.

Access to the Internet was very slow in the library (section 5.5.5.1) and the library websites were not regularly updated (section 5.5.4). For instance, the study revealed that electronic copies of theses or dissertations took months to become available on the library website. The reason might be that there was a lack of staff to upload and maintain the library websites. This creates a contradiction to the recommendations provided by Poll and Boekhorst (2007) regarding the quality of a library website which should provide accessibility to useful material content (section 3.5.2). The study rather confirms Bent, Scopes, and Senior (2008) and Gale's (2006) findings which indicated that library websites sometimes fail to facilitate the learning process of international students due to a lack of relevant content. The study further agrees with Wilson's (1999) model of information behaviour which indicates that the information seekers may experience searching barriers but they have to try alternative sources. In this case, international students were frequently engaged with subject librarians and supervisors to overcome the shortage of information from the university websites.

Foley (2010) and Jackson (2005) noted that if the international students are not able to explain their information needs adequately, information professionals have to identify needs and provide information services that could directly meet the student's particular needs. Similarly, Yi (2007) provided that academic service providers, namely subject librarians and academics are in a good position to understand and detect barriers faced by the international students when

searching for relevant information to satisfy their particular needs (section 3.5.2). This was reflected in the study in terms of limited searching skills reported by some surveyed students when using the library databases and searching Internet sources. Consequently, students sometimes fail to select the correct keywords to use when searching for relevant academic articles related to their research topics using the library databases.

## **6.6 The International Students Office and improvement of services**

The three universities established the ISO with the aim of delivering good and effective services to international students enrolled at the university. In this context, the ISO was an internal unit that should specifically ensure the safety and well-being of international students by providing support services for them. Particularly, all international postgraduate students had to first receive international clearance from the ISO (section 5.5.3.1) before being allowed to register for their academic studies at surveyed universities.

### **6.6.1 Awareness of ISO services and sources consulted**

It was important to determine if international students were aware of the ISO services. In this regard, 87.3% of respondents indicated that they knew about the ISO services, while 12.7% of respondents reported that they were not fully aware of the range of ISO services. It was a compulsory requirement for every international student to interact with this office and receive international clearance after presenting the necessary valid documents (section 5.6.2.4). However, some international students, before departure to South Africa, completed applications for preliminary documents such as a study permit and medical health cover. Some of the international students had friends who introduced these students to the appropriate offices and also assisted them with registration. As a result, some international students did not get to be fully informed about the ISO services especially if they did not attend the orientation programme. In the same context, the study indicated that a large number of surveyed international students become aware of the ISO services from their friends, from the ISO staff, the university website and the Faculty Office when they were searching these other information



services. The other three sources of awareness of ISO services included the orientation programme, registration process and residence accommodation.

The HISOs highlighted the importance for international students attending the orientation programme for familiarisation with university processes, services and facilities. There were other important channels used by the ISOs to inform international students about their available services (section 5.6.2.2.) including the university websites, ISO handbooks distributed during the registration process, other university internal units working in partnership with ISO around campus and notice boards. HISOs indicated that when these students were visiting the ISO for international clearance, they were also informed about other services available on campus. These services included directing students to the security services for student card access to university facilities, the use of library resources for academic purposes, and the student housing office for accommodation concerns to name a few.

### **6.6.2 Usefulness of ISO services and problems faced by respondents**

International postgraduate students indicated that international clearance was a very important service provided by the ISO as this compulsory document assisted the students to register and the ISO was the only office that could provide this document. Although, the ISO literally was in charge of supporting international students when applying for medical aid insurance and renewing their study permits, students highlighted a lack of support in relation to these services. In addition to major problems related to the use of the ISO discussed above (section 6.4.4), there were several reasons for students considering the ISO services as unhelpful (section 5.4.1.4) such as inadequate commitment of ISO staff to providing good services to international students; lack of power to represent and defend the interests of international students during the university decision making process (for example, increase of international levy); and poor marketing strategies to make new international students fully aware of the available services on campus.

The HISOs outlined general reasons for international students not being timeously informed about important services (section 5.6.2.3) and these included inadequate participation in

orientation programmes, preference for communicating with fellow students instead of consulting official university units, and poor use by students of university email facilities as the channel of choice for communication in the higher education environment. Some relevant services were available on campus but were not adequately used by students based either on poor sources consulted (easy accessible source such as friends) or the communication gaps between international students and service providers including the university units.

The HISOs confirmed the three important services offered by them that were used by international postgraduate students which were a valid study permit, medical health cover issued by a recognised South African insurance company and international clearance (section 5.6.2.4). In this context, the main reason for maximum use of these three services was that they were compulsory requirements (section 5.6.2.5) for each international student to be able to study in South Africa. The HISOs also noted that some other services may be offered to students depending on the need of the individual student such as information about travelling and accommodation prior to arrival, transport arrangements from the airport or bus station to campus, and directions to any offices that student may need to consult. The HISOs highlighted that the orientation programme and counselling services were underutilised by international students (section 5.6.2.6) and the main reasons for underutilisation of these services (section 5.6.2.7) included the late arrival of students at university and a lack of sufficient information about activities taking place on campus.

International postgraduate students mentioned additional services that the ISO should be providing (sections 5.4.2.1 and 5.5.7). These services had predominantly impacted on their academic studies and these were increased awareness of available ISO services, support to student to renew a study permit and consistently poor medical coverage provided by health cover insurance providers. In terms of social adjustment the ISO arranged meetings with international students, supported social events especially the cultural day and organised sport competitions including both local and international students.

It was important to identify fundamental problems experienced by international postgraduate students when using the available services. The HISOs agreed on three major problems (section

5.6.2.8) namely delays in the delivery of compulsory documents applied for international students, extended registration period for postgraduate students which promoted the late arrival of many students, and lack of regular consultation of the ISO or other university units with students. In this context, the HISOs noted that international students generally had to wait many months for feedback about applications submitted to the Home Affairs Department for renewal of a study permit and particularly SAQA accreditation which often delayed registration for new international students who had completed their first degree outside South Africa. In other words, extension of the period of registration for postgraduate students would basically promote the late arrival of international students at the university and consequently lead to a small percentage of international postgraduate students participating in the orientation programme. In addition, HISOs indicated that some international students had consulted informal sources (especially friends) instead of formal sources such as the university internal units and unfortunately their friends in many cases were not adequately informed or updated about services and new activities that were happening on campus.

### **6.6.3 Cooperation of ISO with other university internal units**

The international student community requires special attention in terms of their extra needs and queries adding to the normal assistance given to all students around the campus (section 5.6.2). It was important that the HISOs highlight that all university internal units basically work hand in hand with ISO to serve all students including international students (5.6.3.1). The study went further to determine the nature of cooperation that existed between the ISO and the other university internal units. The cooperation appeared in terms of a supportive culture among the university units in order to ensure proper service delivery to all students. HISOs noted that the international orientation programme represented a fundamental indicator of cooperation because several representatives from different internal offices came together to highlight the importance of use of available services and to welcome international students at the university.

Specifically, one HISO discussed that international orientation played a vital role in introducing all services providers on campus to international students such as the teaching staff for academic purposes, the library for academic research materials, security services for safety and

security, campus clinic and counselling for health care services, and SRC for representing all students. Similarly, it was imperative to determine the factors that could hinder cooperation among the university units (section 5.6.3.3). Although there was close cooperation among the university internal units in terms of serving international students, a few units sometimes were not supportive. For example, the study found that in many cases the SRC did not actively participate in the international orientation programme nor did they attend positively to the problems faced by international students (sections 5.5.5.10 and 5.6.3.3). Respondents suggested that international students should receive support from the SRC like local students do.

#### **6.6.4 ISO assistance related to accommodation issues**

It was evident that issues related to accommodation were consistently underlined in the study (sections 5.3.7.1; 5.4.2.2 and 5.5.5.8). International students were living in a new environment and they are entitled to stay in a safe place where security services were available. Therefore, international students initially suggested that accommodation matters should directly be attended to by the ISO since this office should deal with problems faced by these students (section 5.4.1.3). The ISO had tried to distribute a few rooms reserved for international students (limited list of rooms) and would generally give priority to new international students. Furthermore, one HISO also highlighted that the ISO had frequently informed the Dean of Students about accommodation problems faced by international students (section 5.6.3.4). The major accommodation challenge referred to was the limited capacity of the university residences to accommodate the large influx of new international students (section 5.6.3.5).

It was difficult to house the large number of international postgraduate students given the limited number of rooms provided by the Student Housing Office who also had to provide rooms for international undergraduate students. Some resolutions and suggestions about accommodation issues (section 5.6.3.6) were offered by the respondents. The ISO provided these international students with a list of selected private accommodation around the campus that had an agreement with the university to provide accommodation with certain minimum facilities. HISOs basically suggested that new international students should all be accommodated by the university, while the confirmation period of university residence for

returning international students should be extended. The HISOs recommended that new students should apply for accommodation once they are accepted to study at the university and that the process should be an automatic one.

### **6.6.5 Liaison between ISO and external stakeholders**

International postgraduate students sought assistance from within the university and outside service providers (sections 5.6.3 and 5.6.4). The use of services delivered by university internal units was comprehensively interpreted and discussed above (sections 6.6.3 and 6.6.4). Three principal external services providers included the Embassy Office for the first application of a visa to travel to South Africa, the Home Affairs Department when renewing a study permit before it expired, and Momentum and CompCare when applying for medical health cover insurance. New international postgraduate students had to apply for SAQA accreditation of the first degree obtained from outside South Africa. The HISOs explained that they had established a close liaison with all these external service providers to promote and enhance support to international students.

The ISO usually invited these external service providers every year to discuss the requirements related to delivery of their services with international students. The ISO distributed copies of application forms, emailed, and phoned the Home Affairs Department when students experienced delays in renewal of study permits (section 5.6.4.1). The main problems related to the renewal of study permits (section 5.6.4.2) included the many applications that needed to be submitted by international students, delays and the protracted nature of the process due to staff negligence in the Department, and inconsistencies in many procedures resulting from constant changes of regulations and rules guiding the stay of foreigners in South Africa. In terms of suggestions to improve the application and renewal of study permits (section 5.6.4.3), the ISOs focussed on strengthening the close collaboration with officials from the Home Affairs Department, encouraged international students to always have a valid passport and submit applications for renewal before the study permit expired while the HISOs suggested that the Department should issue an acknowledgement of receipt of applications and payment as this would make it easier to follow-up in the event of delays or misplaced application forms.

Moreover, international students are required to have valid medical health insurance from one of the two South African health cover insurance companies. These students travel for long distances to study in South Africa and they do not have direct support from relatives back home. Therefore, medical health insurance services are vital for international students to ensure the safety of their health in a foreign country. Momentum (Ingwe) and CompCare were two medical insurance providers who had an agreement with the surveyed universities to serve international students. The ISO collaborates with these medical aid service providers (section 5.6.4.4) and students received application forms and pamphlets that explained the necessary information. Therefore, international students were able to collect registered medical aid membership cards at the ISO during consultation times with the insurance consultants without travelling to the Momentum or CompCare head offices.

The students noted problems regarding the lack of immediate medical aid support especially for emergency circumstances (sections 5.3.4.14 and 5.5.7.2). The HISOs mentioned that in terms of dealing with medical health insurance problems (section 5.6.4.6) water marks were introduced by the insurance companies to prevent the forging of medical aid membership documents. Medical health cover alone was not proof of membership and each international student had to provide an updated letter from either Momentum or CompCare for receiving international clearance before students could register at the universities.

#### **6.6.6 Policy document related to services for international students**

It was revealed that the three participating universities did not have a specific policy document related to services offered to international students. Handbooks were provided by the ISOs to explain general queries international students may have about the services. In other words, a well-established policy document could serve as an evaluation mechanism to determine roles and responsibilities regarding the service delivery and then suggest particular improvements in terms of the service. International students should know their responsibilities in terms of fulfilling university protocols and preventing possible problems when studying at the universities. For instance, there were limited university residence rooms to be distributed by the Student Housing Office to a large number of international students so all students could not be

accommodated. Thus, international students should accept responsibility to secure accommodation whether inside the university residence or through using private accommodation. Such roles and responsibilities should be clearly outlined in a policy document.

### **6.6.7 University support of ISO services**

It was important to determine the level of university support as a parent organisation to deliver an efficient service to international postgraduate students studying at the surveyed universities. Three main concerns were raised in terms of the university supports which were sufficient funding resources, sufficient staff members, and appropriate amenities/facilities. Although the study noted that University of Zululand provided sufficient funding resources to strengthen ISO services, it was mentioned that the University of KwaZulu-Natal provided inadequate financial resources (section 5.6.6.1). Consequently, the limited financial resources affected the planned ISO social activities and special events such as international cultural day and sport competitions that could have brought together both local and international students and helped create friendships. On the other hand, all the HISOs underlined that ISOs had a limited number of staff (one or two staff) to attend timeously and effectively to the needs of the international students studying at their universities (section 5.6.6.2). The HISOs noted that there was still a long way to go in terms of improving ISO amenities/facilities including building space and office equipment (section 5.6.6.3). The study noted that office building space was limited, while office equipment especially computers and accessories were outdated and needed to be replaced with new equipment.

### **6.6.8 Communication channels used by ISO and related problems**

The ISO had used two important communication channels namely the international orientation programme and the university website to communicate with international postgraduate students. The orientation programme was regarded as a cornerstone for communication because it allowed international students to directly communicate with internal and external service providers. In addition, the use of the university website made communication between the ISO

and international students easier since distribution of emails could be done efficiently. Other communication methods included the use of social media such as Facebook and use of smart phone applications such as WhatsApp communication between the HISO and the representatives of international student clubs. However, three major problems hampering effective communication with students involved inconsistent information systems without making people aware about structural changes, frequent electricity power cuts without backup options (generator) including lack of Internet access. The HISOs noted that university websites contained useful information which helped students to find relevant online information through remote searching without physically visiting the ISO. On the other hand, international postgraduate students suggested that the university website should always be updated and all necessary information guiding these students must be uploaded timeously. However, HISOs mentioned that international students did not regularly visit the university websites and their email boxes as a means of communication.

#### **6.6.9 New initiatives to promote information services and additional comments**

HISOs indicated that Internet service particularly the use of emails had positive results in terms of communication with international students in order to keep them updated. Another effective method applied to promote information services delivered to international students was having regular meetings with the presidents of international student clubs since it was appropriate to discuss important matters with the representatives before arranging general meetings with all international students. In addition, it was noted that special events had to be well promoted and supported because they brought together local and international students to create and maintain social cohesion. In this context, the university as a parent organisation is expected to provide the necessary human resources (increase staff) and capital resources by upgrading the ISO amenities and facilities and providing financial resources to support ISO services delivered to international students.



## **6.7 Summary of the chapter**

This chapter interpreted and discussed findings of the study. The discussion comprehensively followed the research results and literature review in alignment with the theoretical framework that guided this study. Wilson's (1999) model of information behaviour directed the discussion of information needs, seeking behaviour patterns of student respondents involved in the study, and the major sources of information used by international postgraduate students to meet their academic and personal information needs. The study highlighted the use of both formal and informal sources used by students, while library print and electronic resources were supported by the use of Internet services. Subject librarians, lecturers and supervisors were predominantly consulted for academic purposes and communication with colleagues and friends represented key information sources for personal needs. The ISOs provided information services to international postgraduate students studying at the surveyed universities. However, the shortage of ISO staff, limited funding resources and inadequate ISO amenities/facilities affected the efficient provision of information services for international students. The next chapter, Chapter Seven provides a summary of major findings, conclusions, recommendations and suggestions for further studies.

## CHAPTER SEVEN: SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

### 7.1 Introduction

This chapter presents a summary of the findings of the study, conclusions as well as recommendations that arose from the study that investigated the information seeking behaviour of Humanities/Arts international postgraduate students enrolled in KwaZulu-Natal public universities. The findings of the study were systematically presented in Chapter Five and they are further interpreted and discussed in Chapter Six. The findings are summarised and explained in alignment with Wilson's (1999) model of information behaviour which guided the study and was introduced and discussed in Chapter Two. The findings of the study are based on research data gathered from multiple sources and different data collection methods were used for the purpose of the study including:

- The use of questionnaires involving 205 international postgraduate students.
- A focus group discussion incorporating 10 international postgraduate students.
- A semi-structured interview including three Heads of International Students Office.

The principal research question was: **What are the information-seeking behaviour and information needs of Humanities/Arts international postgraduate students in KwaZulu-Natal public universities?** The summary of findings comprehensively responded to five sub-questions underpinning the study (sections 1.5 and 5.1.1) that were developed from the principal research question (section 1.3). The five research questions were as follows:

1. What are the information needs of international postgraduate students?
2. What information resources are used by international postgraduate students?
3. How do international postgraduate students obtain the information they need?
4. What problems do international postgraduate students experience in terms of acquiring information?
5. How can information services that are offered to international postgraduate students be improved?

## **7.2 Summary of findings**

Results were initially presented in Chapter Five, systematically following the main sources of research data which were a self-administered questionnaire and focus group discussion with the international postgraduate students and interview with the Heads of International Students Offices (Appendices 2, 4 and 6). This was done with the aim of accurately reporting all research responses as evidence for the purpose of the study. In this context, findings were also interpreted and discussed in the previous chapter by logically using core themes developed from research results. This discussion method served to link all related research outcomes under one umbrella for a better summary of findings. Therefore, the summary of findings has been divided into two sections: the findings based on the principal research question and findings based on the five sub-questions underpinning the study.

### **7.2.1 Findings based on the principal research question**

It was important to collate findings of the study in order to ensure that the study had successfully achieved its objectives (section 1.4). The study yielded an impressive response rate of 91.9% based on 218 respondents out of a possible 237 (section 5.1.2). The principal question contained two main parts including the information seeking behaviour of surveyed international students and their information needs at the universities. The first part further reflects the information needs revolving around the academic tasks assigned to international postgraduate students which led the surveyed students to be involved in different information seeking behaviour processes. Therefore, academic work was a core need for international postgraduate students registered at the three South African universities surveyed in the study. Wilson's (1999) model served as a theoretical framework for the study (section 2.6) and confirmed that based on the kind of need, people will engage with multiple information seeking patterns by consulting various systems and other sources to collect information that can assist them in satisfying a perceived need.

The study has coherently linked the research findings and discussion with the literature review and Wilson's (1999) model (Figure 2.1). The study highlighted the academic and personal

information needs of the international postgraduate students. The study revealed that information needs of international students are inter-linked in the sense that they involve a cycle starting with the preliminary academic procedures, securing compulsory documents required for registration, and information services related to academic research and learning within an often unfamiliar environment that is new for most of these students.

Therefore, the study investigated the major information seeking behaviours of international postgraduate students that helped them to meet perceived needs, including their information seeking, sources consulted from inside and outside the university, usefulness of sources used and major problems experienced while searching for information. It is important that the library resources and services were consistently used by surveyed students and the study identified multiple channels that created awareness of available library resources and problems related to the use of library services.

## **7.2.2 Findings based on five sub-questions**

Findings of the study in relation to each research sub-question are presented in this section.

### **7.2.2.1 What are the information needs of international students?**

The study revealed that surveyed international postgraduate students had both academic and personal information needs when studying at the host university. These information needs of surveyed students involved information services related to the entire studying journey in South Africa starting from preliminary services such as application to the university, registration, attending classes and writing research projects, and social adjustment in the new environment with different people. The study indicated that all international students had to present a passport with a valid study permit, medical aid insurance cover and receipt for payment of tuition fees and an international levy before they registered. In addition, new international students who obtained their first degree outside South Africa also had to submit SAQA accreditation of their previous degree for registration.

International postgraduate students participated in the study were all from African countries (except South Africa). The findings of the study revealed that international postgraduate students outlined issues related to limited English language competency based on their academic backgrounds; English was not the first official language for some students and the different English accents of some lecturers or supervisors during their consultation period. In terms of academic needs, international postgraduate students voiced different needs that were grouped into eight basic themes reflecting their academic studies and these were as follows:

- Preliminary academic procedures;
- Information services related to the registration process;
- Finding a suitable research topic and awareness of available academic resources;
- Writing research projects (thesis/dissertation) based on university protocols;
- Issues around lectures, tests and assignments;
- Limited English language proficiency as a medium of instruction;
- Inadequate information literacy and computer skills; and
- Limited funding opportunities including bursaries and scholarships.

The findings of the study discussed personal needs related to information services for accommodation and financial matters, family, health and counselling concerns, travelling and security services, culture and entertainment concerns. However, the study emphasised that accommodation concerns affected academic studies for many international students who resided in private accommodation (off-campus) since they were not able to have access to the library facilities and had limited use of the Internet services available on campus.

#### **7.2.2.2 What information resources are used by international students?**

The study found that formal sources consulted in the course of study often included lecturers, supervisors, subject librarians, and the university internal units such as the ISO and other university units depending on the nature of academic information needs. Wilson's (1999) model indicated that during the information seeking process, a person often consults multiple sources to satisfy an information need and these sources may involve digital or manual sources. It was

important to note that the Internet was most commonly used as a tool to find information by the international students who participated in the study, for their academic studies. Particularly, the study revealed that the following sources of information were consulted by international postgraduate students for their academic studies:

- Consulting lecturers and supervisors for learning and research purposes;
- Library resources and services;
- Subject librarians for searching online databases and Internet sources;
- ISO for official documents to register at the university;
- University internal units depending on the nature of information needs, for example the Student Housing Office, Student Counselling Centre, Campus Clinic, to name a few;
- External service providers including mainly the Home Affairs Department for a study permit, and medical aid providers namely, Momentum and CompCare;
- Internet use and computer services;
- Use of Google as the preferable search engine particular Google Scholar; and
- Communication with colleagues when discussing academic needs.

The study revealed that library resources and services were used by all the surveyed international postgraduate students. Use of the library resources involved the use of print and electronic resources, while library services were based on academic support from subject librarians and other related services such as reading space, discussion rooms, printing and photocopy services, interlibrary loan and so forth. The study determined the main sources used for awareness of available library resources and services as being (in order of importance/frequency):

- Lecturers and supervisors;
- Colleagues and friends;
- Library websites;
- Library orientation and training sessions;
- Subject librarians; and
- Library guides and pamphlets.

The study found that international postgraduate students consulted both library print resources predominantly printed books available on the shelves and electronic resources including online databases and Internet sources. Interlibrary loan services and short loan or academic reserve resources were also used by the surveyed students to a lesser extent because of either lack of familiarity with these services or poor service delivery based on delays in arrival of interlibrary loan books and shortage of books available on academic reserves.

The Internet and colleagues were the major sources consulted by international postgraduate students when satisfying their personal information needs. The Internet played a vital role for social motivation to interact with other people including relatives and friends and assisted to overcome issues of distance. In terms of informal sources, it was mentioned that communication with colleagues, friends and family members assisted students to deal with different kind of personal information needs.

### **7.2.2.3 How do international students obtain the information they need?**

Wilson's (1999) model indicated that there are active and passive information seeking behaviours. These two important notions are alternatively regarded as active or purposive information seeking behaviour and passive or accidental information seeking behaviour. Wilson (2006) noted that people sometimes found useful information passively from different sources but this normally involves information professionals who identify the need on behalf of a user.

Similarly, the study found that international postgraduate students involved both active and passive information seeking behaviours as discussed in Chapter Six (section 6.4.1). Particularly, academic information needs had created a necessity for international students to engage through consulting specific sources predominantly lecturers or supervisors and subject librarians, while many personal information needs were satisfied from information services incidentally obtained when interacting with colleagues or when using Internet facilities. The study revealed that supervisors often sent online journal articles to their students based on their research topics without a student coming to the office to ask for assistance. Wilson (1999) reported that in the course of the information seeking process, the need may change based on the information

service received or source consulted. This had also happened in situations where a student would go to ask for assistance related to searching for a specific article available through the library databases; however, during the searching process, a subject librarian would realise that the student had to consult additional related sources depending on the nature of the research topic to satisfy their information needs.

Wilson (2000, 2006) found that people prefer to interact with other people in the course of the information seeking process. The study revealed that although some sources of information were particularly consulted for either academic needs (library) or personal needs (banks and churches), other sources were generally used for both academic and personal information needs (Internet and colleagues). In line with the literature, it was noted that colleagues and relatives were fundamental sources of information for personal needs (section 5.5.3.6). Relatives, especially parents, simultaneously provided funds to the surveyed students not only for tuition fees but also for living expenses. In addition, relatives, predominantly partners, supported the international postgraduate students in a social context. For instance, partners would ensure the well-being of children and household while the spouse/partner was away furthering their studies. Furthermore, colleagues might be helpful when international students were trying to socially create friendships with local students, asking friends to show new students places around the campus such as shopping malls, public transport stations, and even participating in social events such as a cultural day and multiple sport competitions that take place at the university.

#### **7.2.2.4 What problems do international students experience in terms of acquiring information?**

Based on the literature review, scholars have highlighted some problems that often hinder the information seeking behaviour of international students at university. These challenges involved not only issues related to academic tasks but also included personal matters. It was noted that lack of English proficiency created a barrier for communicating for international students, hampering these students in effective communication with subject librarians, consultation with lecturers and supervisors, and limited interaction with fellow students around



campus. However, English is a medium of instruction for many universities around the world and due to its importance for academic and social motives; international students tried all possible means to improve their English language proficiency.

The study found that some international students experienced barriers related to limited English language proficiency and these new students were mainly those who obtained their first degree outside South Africa. However, attending English language classes from the Language Centre was the major channel used to resolve their English language barriers. These students mentioned that limited English language proficiency impacted on the academic support from subject librarians and supervisors during consultation. The international students were happy to create friendships; however the language constraint based on the use of English and IsiZulu spoken by many local students at the surveyed universities hindered communication with local students. It was found that local students frequently combined English and IsiZulu when communicating and this excluded international students from discussions regarding any topic. Some students considered this behaviour as an indication of xenophobia as they were excluded as a result of the language barrier.

From the literature review, Leistman (2000) indicated that international students suffered from limited information literacy skills in relation to technological changes within the academic environment. The study revealed barriers such as limited information literacy skills, shortage of library training sessions, poor computer skills of students, and slow Internet connectivity and access especially from off-campus. The surveyed students argued that there was not enough training sessions provided for referencing styles acceptable within their academic disciplines at the universities.

The study found that there were limited funding opportunities for international students, high tuition fees for students from outside the SADC region, annually increasing international levy, renewal of a study permit, medical aid insurance charges, travelling and living expenses and telephone charges for long distance communication were the main financial challenges faced by the international postgraduate students at their universities.

In terms of problems encountered with the use of the library it was found that library resources, mainly printed books, were often misplaced on the shelves and students had to leave without the sought after books despite the OPAC showing the books to be available in the library. The study indicated limited off-campus access to library databases for many students who were not accommodated in the university residence. Theses or dissertations were not timeously uploaded onto the library electronic system for students to refer to in order to work on their literature review and methodology sections when writing their thesis or dissertation. The Internet connectivity was very slow in the library and this had a negative influence on searching the library databases with assistance from subject librarians as students often had to reschedule consultations. In addition, these students experienced difficulties related to the self-searching of academic resources on the Internet and library databases when writing their thesis or dissertation. In this regard, international students acknowledged the importance of library training sessions in terms of developing information searching skills and the ability to evaluate online resources to ensure the quality of the available information.

Other problems were based on lack of accommodation at the university residences, inadequate safety and security especially for students residing off-campus, the lack of awareness of ISO services, poor service delivery especially delays of study permit renewals and medical aid applications, while new students mentioned delays of SAQA accreditation feedback. Some students were not familiar with the Student Counselling services and interlibrary loan services. Student indicated poor support from the SRC who sent international students to the ISO irrespective of the information need. Students also noted that the ICT help desk was inefficient in assisting students with IT problems such as the granting of passwords and loading of software.

#### **7.2.2.5 How can information services that are offered to international students be improved?**

Despite the fact that some international postgraduate students indicated that they did not make use of ISO for academic registration purposes, the reality was that every international student was conditionally required to have international clearance offered by the ISO. Some

international postgraduate students had arranged the necessary documents before departing for South Africa, especially new students who were applying for the first time while other students, such as returning students, had prepared documents after arrival in South Africa due to the familiarity with the procedures. All these students have to obtain international clearance before registration. The two compulsory documents submitted to the ISO include a valid study permit and medical aid health cover.

It was important to note that the ISO usually invited all stakeholders to visit the university at the beginning of each year to discuss with international students challenges and other constraints which occurred when processing the large volume of applications submitted to their offices. The HISOs recommended that all international students should attend the international orientation programme since they could then consult and discuss all challenges with the internal and external service providers. The ISO handed out copies of application forms, and email and phone numbers of the Home Affairs Department for students to enquire about delays regarding the renewal of study permits (section 5.6.4.1). The first application for a study visa was initially done from the Embassy Office located in the home country before coming to South Africa. It was important to note that the renewal of a study permit was shifted to a private visa facilitation company delegated by the Home Affairs Department in Musgrave, Durban.

Momentum (Ingwe) and CompCare were two South African medical health cover providers who had signed an agreement with the surveyed universities to provide medical aid services to international students at the universities. Therefore, this signed medical agreement led to the provision of medical care services for international students. This minimised the university's responsibility and international student liability for general medical expenses while studying in South Africa. In this regard, payment of medical health cover was paid directly to the medical aid scheme by students and proof of payment was then presented to the ISO before registration at the universities. However, the monopoly of two medical scheme providers resulted in high premiums and limited care for students who complained that they were not covered especially for emergency procedures.

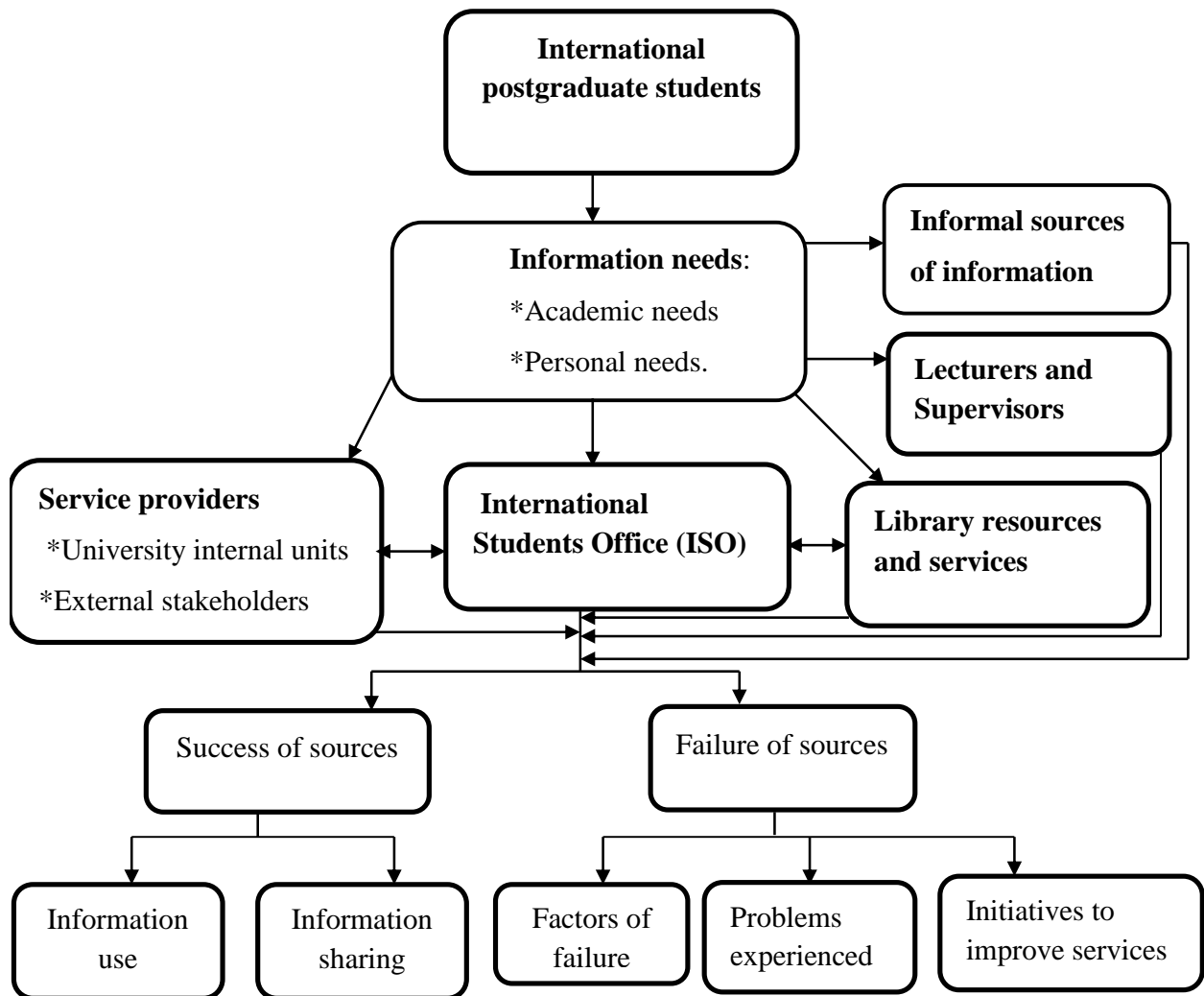
### **7.3 Contributions and originality of the study**

The review of the literature indicated that basically there is only one recent study (Sehoolle and Lee 2014) undertaken in South Africa, which covered seven universities in Western Cape, Eastern Cape and Gauteng provinces and focussed on the information seeking behaviour of international students. Majyambere (2012) conducted a related master's study involving only one university campus (UKZN-Pietermaritzburg Campus). The present study gained its foundation from this former study but it went further and surveyed a large number of 215 international postgraduate students from 22 African countries registered in the Humanities/Arts of the three public universities in KwaZulu-Natal. These three universities were UKZN, DUT and UNIZULU. This study involved a large number of international students studying within a specific academic discipline which is a new approach on the African continent as well as in South Africa.

The study highlighted key academic needs and major personal needs of surveyed international students. The results of the study indicated the use of formal and informal sources of information, different information seeking behaviour patterns in relation to information services, major problems experienced by these students when seeking information and new initiatives regarding the improvement of services offered to international postgraduate students. Particularly, findings of the study highlighted difficulties for international students in terms of the lack of a policy document regarding services for international students, lack of awareness of ISO services, and limited resources for supporting ISO services to deliver effective services to international students studying in the three South African universities. The study described the negative impact on students resulting from limited accommodation, and inadequate access to university facilities mainly use of library and Internet access to the LANs from off-campus.

The study has contributed to the body of knowledge in the field of information studies by presenting the proposed model of information seeking of international students and provided useful inputs for decision-makers in the higher education sector in particular in terms of meeting the needs of international postgraduate students. It was then useful to develop a proposed model emanating from the findings of the study. Therefore, Figure 7.1 below presents

a proposed model of information seeking behaviour of international postgraduate students in South Africa. It shows the ISO as the key service provider to the large group of international students at the host universities. All attributes of the proposed model have been developed in relation to the findings of this study. These attributes are comprehensively represented as follows:



**Figure 7. 1:** Proposed model of information seeking of international postgraduate students

**Source:** Researcher (2014)

**International postgraduate students:** Figure 7.1 indicates that information users refer to international postgraduate students in the context of this study. The definition of international students was provided earlier (section 1.1) and to avoid repetition the proposed model maintains

the same definition of international students. International postgraduate students were registered at all postgraduate levels of study and this indicated that some of them were returning students and other students were new to South Africa if they had obtained their first degree outside South Africa. Therefore this had created additional information needs of services in the new academic environment, for example, SAQA accreditation was a requirement for only new students. However, the SAQA was also represented as one of the external service providers for the purpose of the proposed model.

**Information needs:** The results of the study indicated that information needs of international postgraduate students included academic and personal information needs. In terms of academic needs, the study discussed the preliminary academic procedures, information related to the registration, academic resources for learning and writing a thesis or dissertation, English language proficiency as English is the medium of instruction at the surveyed universities, information literacy skills align with technological changes, and issues related to funding of their studies. On the other hand, the main personal needs highlighted from the results of the study involved securing accommodation; high living costs (financial issues), health and family matters, travelling, security concerns, and entertainment services. This was important to identify at an early stage the information needs of these international students since students tend to consult different services depend on the nature of their needs.

**Formal sources of information:** There were information service providers and other sources assisting the international students enrolled at the universities. The ISO is a university unit that is basically in charge of attending to the needs of international students studying at the universities. Therefore, this office cannot work in isolation and it obviously has to collaborate with other university internal units and liaison with external service providers to meet the information needs of international students. This was the main reason for Figure 7.1 above showing the two ways in which the ISO and the other main sources were consulted by international students and their liaison with students. Initially, international students should present to the ISO a valid study permit from the Home Affairs Department and medical aid cover from Momentum or CompCare subscribed to annually. In addition, new postgraduate students should secure SAQA accreditation for registration at the host universities. Thus there is

a need for liaison between the ISO and these external service providers (stakeholders) when assisting international students. Furthermore, the ISO should maintain cooperation with other internal units especially the Student Housing Office to securing accommodation for international students and the ISO is expected to work hand in hand with the Faculty Office to ensure the registration and other academic requirements for international postgraduate students.

**Use of library for academic needs:** International students regularly used library resources and services for academic purposes. The university libraries supported academic information needs of international students, for instance arranging library workshops to introduce new international students to available library print and electronic resources, library training sessions regarding information literacy and computer searching skills for the library databases and use of the internet. The printed books were the most used print library materials by the surveyed students and library online databases were the most used electronic resources for academic purposes.

**Lecturers and supervisors:** international postgraduate students consulted their lecturers basically for issues related to classes while supervisors were consulted mainly for guidance and supervision of theses or dissertations. Academics prescribed useful printed books to consult from the library in regards to preparation of individual class assignments, group work presentations, and for the purpose of writing tests especially honours and a few masters' students. Academics also directed and provided postgraduate students with the necessary information regarding online databases, scholarly websites and electronic journal articles to consult for writing a thesis or dissertation depending on the research topic.

**Informal sources of information:** findings indicated that international postgraduate students had used informal sources of information predominantly including colleagues, friends, relatives and Internet sources. Students had consulted their colleagues to satisfy academic information needs such as requesting information regarding registration, asking colleagues for help to search online resources, and borrowing printed books from friends. As was expected, international postgraduate students had mainly interacted with their colleagues, friends and relatives for their personal information needs. They had also communicated with their family

members and colleagues for social purposes using the Internet, emails, social networks, and smart phones for chatting on WhatsApp. The study found that the surveyed students in many cases had consulted more with their colleagues than consulting with the ISO and other university units. The main reason was the easy interaction and quick response received from their colleagues and friends.

**Success of source:** Findings of the study highlighted that when an information service was useful, international students used it or shared information with their colleagues about the service. It was also important to note that information services would be used and shared with other people and this was more applicable to online resources than printed resources. For instance, it was much easier for a student to use online journal articles and forward them to their colleagues, while it was harder to share a research methodology printed book. Therefore, successful use of sources depended on many factors such as consulting the right sources based on the nature of need, availability of service in suitable format, accurate communication between students and service providers, and the ability to correctly use and evaluate the received information.

**Failure of source:** The study indicated that some factors negatively influenced the information service offered to international postgraduate students including consultation of inadequate sources, lack of awareness of ISO services, lack of familiarity with counselling services, and interlibrary loan services were new academic services for some students, to mention a few. Wilson (1999) noted that interpersonal consultation is dependent on information available from the source consulted. This was similar to the findings of the current study which indicated that the friends would not admit that they did not know about a service and had sometimes provided inadequate information.

Many challenges were discussed in the findings related to the limited information literacy and computer skills for searching and evaluation of online resources, poor English language proficiency, and lack of accommodation that led to limited access to the library and the Internet for off-campus students. All these issues negatively contributed to the failure of services rendered to the international postgraduate students who participated in the study and they are



portrayed in Figure 7.1 above. In this context, the study provided some initiatives considered to improve information services such as collaboration of the ISO with other internal and external service providers, meetings between the ISO and international students to increase awareness of available services. In addition, it was indicated that the development of a policy document was needed to guide the information service for international students studying at universities. The policy document would also serve as an evaluation mechanism and proper tool for policy makers when they plan to update university protocols for international students. A comparison with Wilson's model is provided in section 7.5 below.

#### **7.4 Implications for an information service for international postgraduate students**

It is important to discuss the implications for information services for the international postgraduate students that emanated from data collected for this study. These information services have to be equipped with core elements that can effectively satisfy the academic and personal information needs of international students which studying in public universities especially in South Africa.

According to Liao, Finn, and Lu (2007); Daly (2010); and Yi (2007), when designing the information services for international students, service providers should address the information seeking behaviour of these students based on the nature of their information needs. From the literature this recommendation has been supported globally by scholars such as Song (2004); Mu (2007) and Yang (2007). In the South African higher education context, this important view was strengthened by some researchers including Kishun (2007); Sehoole (2006); Moloi, Gravett, and Petersen (2009); and Botha (2010). This information service should include perspectives related to the effective use of library resources and services for academic purposes as pointed out by Allen (1993); Brown (2000); Jackson (2005) and Foley (2010). The information service should also take into consideration the everyday life information seeking patterns of international students (personal needs) in their new academic environment as reported by Leder and Forgasz (2004); Brux and Fry (2009); Sin and Kim (2013).

Such information services emanating from the findings of the current study for international postgraduate students studying at South African universities should incorporate the use of both library print and electronic resources, factors that affect information seeking behaviour, use of formal and informal sources, the usefulness of sources consulted, problems experienced when seeking information from or using the services, and major initiatives related to the improvement of service delivery. Some key components the service providers must consider include the following:

- Assessing the English language proficiency of new international students given that English is the medium of instruction and considering that international students have different education backgrounds;
- Evaluating the information literacy skills and computer knowledge of the international students given that lack of such skills will affect their ability to find, use and evaluate information to satisfy their information needs;
- Developing library training sessions in collaboration with academic staff in order to understand the searching ability of the international postgraduate students, especially the new international students;
- Planning library training sessions based on academic discipline and level of postgraduate study in order to have a homogeneous group of students;
- Scheduling regular meetings in order to discuss challenges and keeping students informed with the aim of preventing the lack of awareness about available services and encourage consultation of the university internal units as formal sources of information.
- Empowering the staff in the service units to provide an efficient and effective information service to postgraduate students including both local and international students.

### **7.5 Findings related to Wilson's (1999) model**

Wilson's (1999) model of information behaviour served the role of the theoretical framework for the study. The study also discussed the applicability of this model for the purpose of the study (section 2.6). The findings were interpreted and discussed in relation to Wilson's model

and this section provides the summary of findings related to Wilson's model as the theoretical framework for the study. Wilson's model provided a direction to follow for the arrangement of the literature review, presentation of results and discussion of findings. The proposed model was presented with the same structure as Wilson's model based on some similarities of activities that occurred during the course of the current study. Wilson's model was general (Figure 2.1) while the proposed model (Figure 7.1) focussed on specific group of people which were international postgraduate students at the three host universities.

Savolainen (2010) noted that people are involved in everyday life (non-work) information seeking activities in order to satisfy their personal needs. The study highlighted some core information services related to the personal information needs of international postgraduate students who participated in the study. Therefore, future studies may find it useful to combine the use of Wilson's (1999) model of information behaviour with Savolainen's (1995) model that incorporates everyday life needs and related information seeking activities. On the other hand, Wilson's model highlighted the use of the information systems and other sources, while the proposed model preferred to separate formal and informal sources with the aim of highlighting the liaison between the ISO with the library on one end and other formal sources of information on another end including internal and external service providers.

## **7.6 Recommendations**

The study investigated the information seeking behaviour of Humanities/Arts international postgraduate students in KwaZulu-Natal public universities. A total of 215 international postgraduate students from three public universities including UKZN, DUT and UNIZULU successfully participated in the study. Based on the findings, the study makes the following recommendations:

1. The study indicated that international postgraduate students did not adequately participate in the orientation programme. This is an important event where the university internal units and external service providers come together and discuss with students available services, possible challenges and ways to improve information

services in order to meet the information needs of students. Participation in the orientation programme for all international postgraduate students must be made compulsory. The study also advised that students must regularly consult with the ISO and the other university internal units as formal sources of information instead of focussing only on seeking information from colleagues and friends that were often not sufficiently informed about important services available on campus. The ISO should run the orientation programme at least twice a year, at the start of each semester to accommodate more students.

2. It was evident that the international postgraduate students could not perform any academic task without first being registered at the university with the presentation of compulsory documents. Unfortunately the registration process involves many steps including provision of a valid study permit, medical aid cover and financial clearance for the ISO to provide an international clearance certificate which international postgraduate students present to the Faculty Offices for registration. The study recommends that the Faculty Office should provide a temporary student card with access to university facilities, especially for new international postgraduate students, so that they have immediate access to facilities and services that can assist them with their information needs while they await finalisation of their registration. The university should regularise the registration period and students should not be allowed to register anytime during the year. Students should be allowed to register only at the start of each semester.
3. Accommodation is a fundamental challenge faced by many international postgraduate students (especially new students). The study recommends that the university should not only increase the number of residence rooms but it should also assign a particular staff member at the Student Housing Office who would deal directly with accommodation problems of international students.
4. The study discussed the vital role of collaboration between the university academic units and support units. The study recommends that the Faculty Offices should collaborate

with the university library to provide details of postgraduate international students, and subject librarians who could timeously inform lecturers and supervisors of library training sessions available in the future and the content to be covered in each session. Lecturers and supervisors should liaise more closely with subject librarians to suggest content for the library training programmes and discuss the information needs of students with the subject librarians.

5. The study highlighted lack of awareness of the ISO services. Consequently this inadequate awareness of available services negatively impacts on the use of these services by international students. The study recommends that ISOs should apply appropriate marketing strategies in order to increase awareness of their services and encourage students to effectively use available services. The marketing strategies might include having regular meetings with students, better use of the university website to inform students of services, and increase the number of special events, mainly cultural day and sporting competitions as both local and international students come together for these important events. This would improve social cohesion amongst the students.
6. The study revealed the lack of a formal policy document regarding services provided for international students. The handbooks offered to international students outlined only services delivered but did not detail the roles and responsibilities of students and service providers. A formal university policy document focussing on international students would serve as an evaluation mechanism that might create transparency and ensure accountability in terms of improving service for international students.
7. The study found that there was a limited number of ISO staff to deliver an efficient service to the large number of international students at the universities. The study recommends that the ISO should employ at least two international postgraduate students who completed their first degree at the present university either under part-time contract or recruited on a voluntary basis. This is recommended not only because the ISOs have a shortage of staff but also these students are familiar with the host university environment and their compatriots. These international students should be in a good

position to effectively identify and support essential information services for international postgraduate students.

8. The study revealed an inadequate communication delivery system. The study recommends that administrators in the Faculty Office should make follow-up enquiries regarding correspondence sent to international students since messages might not be received timeously due to the fact that some international students experience Internet connectivity and postal problems when they are still in their home countries. Therefore, administrators could communicate through telephone and SMS or send more than one email to ensure the delivery and reception of messages by the international students. This might prevent the shortcomings that would hinder the delivery of vital information to new international students.

### **7.7 Suggestions for future studies**

The following future studies should be conducted:

- English language is the medium of instruction for many South African universities including the surveyed universities in the study. The findings presented and discussed the limited English proficiency especially of the new international postgraduate students. A comprehensive study is necessary to address the English proficiency levels of these students and provide recommendations based on findings to inform all university teaching and learning policies.
- From the literature review, Stilwell (2010) and Schoole and Lee (2014) also confirmed that print and electronic resources are used in South African universities for academic purposes. The study revealed problems of access to particular formats and kinds of resources for postgraduate students. These issues need to be investigated more fully so that libraries can improve access to and provision of resources.
- The study highlighted the limited information literacy skills of the international postgraduate students and lack of sufficient library training sessions. The study also noted that online resources required necessary technological knowledge and information

skills to strategically search online information from the Internet, and the ability to critically analyse and evaluate online resources. In this context, an academic study is needed to identify the ICT knowledge gaps of new international students and propose the necessary content that should be covered during the information literacy training courses designed for international students.

## **7.8 Conclusion**

This study presented the summary of findings based on the principal research question and systematically addressed all five sub-questions (sections 1.3 and 1.5) and linked the findings and related literature. Wilson's (1999) model provided the theoretical framework for the study and guided the discussion of findings that yielded insightful references to improve information services for the international postgraduate students. This chapter concludes by highlighting that the major objective of the research: which was an investigation into the nature of the information seeking behaviour and information needs of Humanities/Arts international postgraduate students studying in the three KwaZulu-Natal public universities was achieved.

The study revealed different academic and personal information needs of the international postgraduate students when studying in South Africa. The study revealed the use of library print and electronic resources for learning and research purposes. The information seeking behaviour of the surveyed students involved the active or purposive seeking behaviour for academic studies. The Internet was a main tool used to actively search online resources when students were writing theses or dissertations, while relevant resources were also found passively on the Internet especially when using social networks. Students also used social media for personal information needs, mainly for interacting with relatives, colleagues and friends. It was found that limited information literacy skills often created a barrier when searching online resources and many surveyed students suggested more training sessions should be provided by the library.

The large influx of international postgraduate students at the universities without an incremental increase in facilities meant that information services were undermined. These included provisions of resources to the ISO such as increased funding for special events, increase in staff

numbers since some campuses did not have permanent ISO staff to assist international students, improvement of office amenities and facilities, increased space and computer equipment with accessories. The study also noted that a policy document regarding services for international students should be formulated and communicated to all appropriate bodies to regularise the role and responsibilities of the service providers and international students.



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## Appendix 1: Informed consent



Dear Respondent,

Invitation to participate in a survey

My name is Moise Majyambere, a PhD candidate in Information Studies at the University of KwaZulu-Natal, Pietermaritzburg Campus, South Africa. I am conducting this study as part of the requirements for the Doctoral degree. The purpose of this study is to investigate the “**information seeking behaviour of Humanities/Arts international postgraduate students in public universities in KwaZulu-Natal Province, South Africa**”.

You are invited to participate in the research which will be conducted at your university. To fully comprehend the information seeking behaviour of international students, it is important to understand their information needs. The study will assist in determining whether the information services that are provided by the University meet your information needs. It will also help to identify problems you encounter as you seek information. The findings may be able to assist the university to improve on information delivery systems for international students and at the same time, contribute to ensuring the efficient integration of international students at these South African universities.

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission. Please note that your name will not be included in the report and confidentiality will be maintained throughout the study.

Your participation in answering the questions is completely voluntary. You have the right to withdraw at any time during the study. It will take you approximately 15 minutes to complete the questionnaire. I appreciate the time and effort it would take to participate in this study.

Thank you.

Yours sincerely,

Moise Majyambere

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**Please complete this form**

**Title of study: “information seeking behaviour of Humanities/Arts international postgraduate students in public universities in KwaZulu-Natal Province, South Africa”.**

I....., hereby confirm that I understand the contents of this document and the nature of the research project, and I consent to participate in the research project as outlined in the document about the study.

I acknowledge that I have been informed of the purpose of this survey. I am aware that participation in the study is voluntary and I understand that I am at liberty to withdraw from the project at any time, should I so desire.

**Participant**

Signature .....

Date: .....

Email: .....

**Researcher**

Signature .....

Date: .....

Email: .....



## Appendix 2: International students' questionnaire

My name is Moise Majyambere, a PhD candidate in Information Studies at the University of KwaZulu-Natal, Pietermaritzburg Campus, South Africa. I am conducting this study as part of the requirements for the Doctoral degree. The purpose of this study is to investigate the “**information seeking behaviour of Humanities/Arts international postgraduate students in public universities in KwaZulu-Natal Province, South Africa**”.

The findings may assist these universities to improve information delivery systems for international students and at the same time, contribute to ensuring the efficient integration of international students at these South African Universities. I will be extremely grateful if you could assist me in this endeavour by answering the following questions. It will take you approximately 15 minutes to complete the questionnaire. Your responses will be kept anonymous and confidentiality is guaranteed.

### Instructions for completing the questionnaire

- a. Unless otherwise instructed, please place a tick or a cross in the space provided.
- b. Where you are required to answer in your own words, please use the space provided.

### Section 1- Background information of international students

1. Gender                      1.1    Male [ ]                      1.2    Female [ ]

2. Age range

2.1	21-25	[ ]	2.5	41-45	[ ]
2.2	26-30	[ ]	2.6	46-50	[ ]
2.3	31-35	[ ]	2.7	51-55	[ ]
2.4	36-40	[ ]	2.8	Over56	[ ]

3. What is your country of origin? .....

4. University affiliated to 4.1 UKZN [ ]    4.2 DUT    [ ]    4.3 UNIZULU[ ]  
If DUT, please go to Question 6. If UNIZULU, please go to Question 7.

5. If UKZN, please indicate the campus

5.1	Pietermaritzburg	[ ]
5.2	Howard College	[ ]
5.3	Edgewood	[ ]

6. If DUT, please indicate the campus

6.1	M.L. Sultan	[ ]
6.2	Steve Biko	[ ]
6.3	Ritson	[ ]

6.4 City

7. If UNIZULU, please indicate the campus

7.1. Main campus

7.2. Richards Bay campus

8. If UKZN, please indicate School and if DUT or UNIZULU please indicate department

8.1 UKZN- College of Humanities- School of  
.....

8.2 DUT- Faculty of Arts and Design- Department of  
.....

8.3 UNIZULU- Faculty of Arts- Department of  
.....

9. What is your present level of study?

9.1 Postgraduate Diploma

9.2 Postgraduate Certificate

9.3 Honours

9.4 Masters

9.5 Doctorate

10. Nature of study

10.1 Full-time student

10.2 Part-time student

11. Did you do your previous degree at the present university?

11.1 Yes

11.2 No

(If No, please provide the name of university and the country)  
.....

12. Where are you staying while you are at your present university?

12.1 Off-campus

12.2 University residence

13. If you stay off-campus, did you apply for university residence?

13.1 Yes

13.2 No  (If No, please go to Q15)

14. If Yes, please specify the reason(s) why you did not get university accommodation.

.....  
.....  
.....  
.....

15. What is your home language?

.....

16. What other languages do you speak apart from your home language?

.....  
.....  
.....  
.....

17. Given that English is the official language at your present university did/do you encounter any language problems with your research or studies at this institution?

17.1 Yes

17.2 No  (If No, please go to Q21)

18. If Yes, could you briefly explain the type of problem(s) you encountered?

18.1 Reading

.....  
.....  
.....

18.2 Writing

.....  
.....  
.....

18.3 Speaking/Communicating

.....

18.4 Listening/Understanding

.....

18.5 Other  (please specify)

.....  
.....  
.....  
.....

19. Did you/are you doing anything to resolve this (these) problem(s)?

19.1 Yes [ ]

19.2 No [ ] (If No, please go to Q21)

20. If Yes, please briefly describe what you have done or are doing to resolve this (these) problem(s).

.....  
.....  
.....  
.....  
.....  
.....

**Section 2- Information needs and information seeking behaviour of international students**

While at university there are essentially two types of needs – one related to academic studies (for example, registration process, lectures, assignments, research project, etc.); and the other related to personal issues (such as family, accommodation, health, recreational activities, etc.) The purpose of this section is to find out from you what important situation n(s) you have experienced and what kind of information you have needed to find, learn or know in these situations. For example, you may have needed to make a decision, find an answer to a question, solve a problem or try to understand something.

**A. An information seeking situation(s) in relation to your academic studies**

21. Which of the following situations required you to find information related to your academic studies at your present university? (Please tick all those that apply)

- 21.1 Registration process [ ]
- 21.2 Financing studies [ ]
- 21.3 English language [ ]
- 21.4 Research topic [ ]
- 21.5 Research resources [ ]
- 21.6 Information literacy skills [ ]
- 21.7 Writing theses/dissertations [ ]
- 21.8 Issues around lectures [ ]
- 21.9 Tests and assignments [ ]
- 21.10 Other(please specify)

.....  
.....  
.....  
.....  
.....

22. What sources did you consult to find information to resolve the academic needs? (If applicable you may tick more than one source of information)

- 22.1 International Student Office (ISO) [ ]
- 22.2 School/Faculty Office [ ]
- 22.3 Librarians [ ]
- 22.4 Lecturers/Supervisors [ ]
- 22.5 Colleagues [ ]
- 22.6 Student Funding Centre [ ]
- 22.7 Student Counselling Centre [ ]
- 22.8 Student Housing Department [ ]
- 22.9 Risk Management/Security Services [ ]
- 22.10 International Student Associations [ ]
- 22.11 Student Representative Council (SRC) [ ]
- 22.12 Home Affairs Department [ ]
- 22.13 Embassy Office [ ]
- 22.14 Medical Aid Insurance Companies [ ]
- 22.15 Internet use [ ]
- 22.16 Computer services [ ]
- 22.17 Other (please specify) [ ]

.....

.....

.....

.....

.....

23. Were you successful when you consulted the following sources?

	Yes	No	Not Applicable
23.1 International Student Office (ISO)	[ ]	[ ]	[ ]
23.2 School/Faculty Office	[ ]	[ ]	[ ]
23.3 Librarians	[ ]	[ ]	[ ]
23.4 Lecturers/Supervisors	[ ]	[ ]	[ ]
23.5 Colleagues	[ ]	[ ]	[ ]
23.6 Student Funding Centre	[ ]	[ ]	[ ]
23.7 Student Counselling Centre	[ ]	[ ]	[ ]
23.8 Student Housing Department	[ ]	[ ]	[ ]
23.9 Risk Management/Security Services	[ ]	[ ]	[ ]
23.10 International Student Associations	[ ]	[ ]	[ ]
23.11 Student Representative Council (SRC)	[ ]	[ ]	[ ]
23.12 Home Affairs Department	[ ]	[ ]	[ ]

23.13 Embassy Office	[ ]	[ ]	[ ]
23.14 Medical Aid Insurance Companies	[ ]	[ ]	[ ]
23.15 Internet use	[ ]	[ ]	[ ]
23.16 Computer services	[ ]	[ ]	[ ]
23.17 Other (please specify)	[ ]	[ ]	[ ]
.....	[ ]	[ ]	[ ]
.....	[ ]	[ ]	[ ]
.....	[ ]	[ ]	[ ]

24. What problems did you encounter when consulting the above sources?(Indicate not applicable (NA) if you have not encountered any problems)

<b>Sources</b>	<b>Problems encountered</b>
International Student Office (ISO)	
School/Faculty Office	
Librarians	
Lecturers/Supervisors	
Colleagues	
Student Funding Centre	
Student Counselling Centre	
Student Housing Department	
Risk Management/Security Services	
International Student Associations	
Student Representative Council (SRC)	
Home Affairs Department	
Embassy Office	
Medical Aid Insurance Companies	
Internet use	
Computer services	
Other (please specify)	

25. Do you use library resources for your studies or research?

25.1 Yes  [ ]

25.2 No  [ ] (If No, please go to Q28)

26. If Yes, please tick all those that apply

26.1 Library catalogue (OPAC)  [ ]

26.2 Online databases  [ ]

26.3 Print materials (books and journals)  [ ]

26.4 Theses and dissertations  [ ]

26.5 Reference collection  [ ]

26.6 Subject librarians  [ ]

26.7 Short loan/Academic reserves  [ ]

25.8 Interlibrary loan  [ ]

26.9 Discussion rooms (availability)  [ ]

26.10 Printing and photocopy facilities  [ ]

26.11 Other (please specify)  [ ]

.....[ ]

.....[ ]

27. How did you become aware of these library resources? (Please tick all those that apply)

27.1 Library orientation  [ ]

27.2 Library guides  [ ]

27.3 Library websites  [ ]

27.4 Subject librarians  [ ]

27.5 Lecturers/Supervisors  [ ]

27.6 Colleagues  [ ]

27.7 Other (please specify)

.....  
 .....

28. How useful are the following print resources for your studies?

Print resources	Very useful	Somewhat useful	Neutral	Not very useful	Not at all useful
Books					
Reference materials (dictionaries/encyclopaedias)					
Journals					
Indexes and abstracts					
Theses/dissertations					
Other (please specify)					



29. How useful are the following electronic resources for your studies?

Electronic resources	Very useful	Somewhat useful	Neutral	Not very useful	Not at all useful
Library Website					
Library catalogue (OPAC)					
E-books					
E-journals					
Online databases					
Other (please specify)					

30. How helpful are the subject librarians in assisting you to find information for your studies?

30.1 Very helpful [ ]

30.2 Somewhat helpful [ ]

30.3 Neutral [ ]

30.4 Not very helpful [ ]

30.5 Not at all helpful [ ]

30.6 Please explain (you may even give examples where applicable)

.....

.....

.....

.....

31. How helpful are your lecturers/supervisor in assisting you to find information for your studies?

31.1 Very helpful [ ]

31.2 Somewhat helpful [ ]

31.3 Neutral [ ]

31.4 Not very helpful [ ]

31.5 Not at all helpful [ ]

31.6 Please explain (you may even give examples where applicable)

.....

.....

.....

.....

.....

.....

32. What problems have you encountered when using these library resources? (Indicate not applicable (NA) if you have not encountered any problems)

<b>Library resources</b>	<b>Problem encountered</b>
Library catalogue (OPAC)	
Online databases	
E-books	
E-journals	
Print materials (books and journals)	
Theses and dissertations	
Reference collection	
Subject librarians	
Short loan/Academic reserves	
Interlibrary loan	
Discussion rooms (accessibility and furniture)	
Printing and photocopy facilities	

**B. An information seeking situation(s) in relation to personal needs**

33. Which of the following situations required you to find information related to your personal needs/issues? (Please tick all those that apply)

- 33.1 Accommodation [ ]
- 33.2 Family issues [ ]
- 33.3 Health issues [ ]
- 33.4 Cultural issues [ ]
- 33.5 Financial issues [ ]
- 33.6 Travelling issues [ ]
- 33.7 Security issues [ ]
- 33.8 Entertainment [ ]
- 33.9 Other (please specify)

.....  
.....  
.....  
.....  
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.....

34. What sources did you consult to find information to resolve the personal needs? (If applicable you may give more than one source of information)

.....  
.....  
.....  
.....  
.....  
.....

35. Was the information obtained from the source(s) useful?

- 35.1 Yes [ ]
- 35.2 No [ ]
- 35.3 If No', please specify why

.....  
.....  
.....  
.....

**Section 3- Information related to International Students Office (ISO)**

36. Are you aware of the services that are provided by International Students Office (ISO)?

36.1 Yes [ ]

36.2 No [ ]

37. If Yes, how did you get to know about these services?

.....  
.....  
.....  
.....  
.....  
.....

38. Please rate the services of the ISO?

<b>ISO services</b>	<b>Very useful</b>	<b>Somewhat useful</b>	<b>Neutral</b>	<b>Not very useful</b>	<b>Not at all useful</b>
Study visa-permit applications and extensions					
Applying for medical aid cover					
International clearance					
Faxes and registered mail services					
Other (please specify)					

39. If you indicated any services which were not useful to you in Q38 above, please explain why they were not useful?

.....  
.....  
.....  
.....

40. Are there any other services the ISO should be providing (but is not?) Please list the service/s below.

.....  
.....  
.....  
.....  
.....  
.....  
.....



### Appendix 3: Informed consent



Dear Respondent,

Invitation to participate in an interview

My name is Moise Majyambere, a PhD candidate in Information Studies at the University of KwaZulu-Natal, Pietermaritzburg Campus, South Africa. I am conducting this study as part of the requirements for the Doctoral degree. The purpose of this study is to investigate the “**information seeking behaviour of Humanities/Arts international postgraduate students in public universities in KwaZulu-Natal Province, South Africa**”.

You are invited to participate in the research which will be conducted at your university. To fully comprehend the information seeking behaviour of international students, it is important to understand their information needs. The study will assist in determining whether the information services that are provided by the University meet these students’ information needs. It will also help to identify problems students encounter as they seek information. The findings may be able to assist the university to improve on information delivery systems for international students and at the same time, contribute to ensuring the efficient integration of international students at these South African universities.

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission. Please note that your name will not be included in the report and confidentiality will be maintained throughout the study.

Your participation in answering the questions is completely voluntary. You have the right to withdraw at any time during the study. Your permission is required for audio-recording. The interview will take approximately 30 to 45 minutes. I appreciate the time and effort it would take to participate in this study.

Thank you.

Yours sincerely,

Moise Majyambere

University of KwaZulu-Natal  
Email: [majyamose@yahoo.fr](mailto:majyamose@yahoo.fr) or  
[208524104@stu.ukzn.ac.za](mailto:208524104@stu.ukzn.ac.za)  
Cell: 073 614 5712

**HSSREC Research Office:** Ms P Ximba  
Institution: University of KwaZulu-Natal  
Telephone number: +27 (0) 31 260 3587  
Email address: [ximbap@ukzn.ac.za](mailto:ximbap@ukzn.ac.za)

**Supervisor:**

Professor Ruth Hoskins  
Information Studies  
School of Social Sciences  
University of KwaZulu-Natal  
[hoskinsr@ukzn.ac.z](mailto:hoskinsr@ukzn.ac.z)  
033 260 5093 (tel.)

**Please complete this form**

**Title of study: “information seeking behaviour of Humanities/Arts international postgraduate students in public universities in KwaZulu-Natal Province, South Africa”.**

I....., hereby confirm that I understand the contents of this document and the nature of the research project, and I agree to participate in the research project as outlined in the document about the study. I consent / do not consent to have this interview recorded.

I acknowledge that I have been informed of the purpose of this interview. I am aware that participation in the study is voluntary and I understand that I am at liberty to withdraw from the project at any time, should I so desire.

**Participant**

Signature .....

Date: .....

Email: .....

**Researcher**

Signature .....

Date: .....

Email: .....

**Appendix 4: Interview schedule for the Head of International Student Office**

My name is Moise Majyambere, a PhD candidate in Information Studies at the University of KwaZulu-Natal, Pietermaritzburg Campus, South Africa. I am conducting this study as part of the requirements for the Doctoral degree. The purpose of this study is to investigate the **“information seeking behaviour of Humanities/Arts international postgraduate students in public universities in KwaZulu-Natal Province, South Africa”**.

The findings may assist these universities to improve information delivery systems for international students and at the same time, contribute to ensuring the efficient integration of international students at these South African Universities. I will be extremely grateful if you could assist me in this endeavour and allow me to interview you as part of my research. The interview will take approximately 30 to 45 minutes. Your responses will be kept anonymous and confidentiality is guaranteed.

1. How long have you been working for the International Students Office at your institution?

.....

2. How often do you assist international postgraduate students?

2.1 Very often [ ]    2.2 Often    [ ]    2.3 Sometimes    [ ]

2.4 Rarely    [ ]    2.5 Never    [ ]

3. What services are provided by the International Students Office at your institution?

.....  
.....  
.....  
.....  
.....  
.....  
.....

4. Are the international postgraduate students aware of some or all these services?

4.1 Yes    [ ]                    4.2 No    [ ]

5. If Yes, how do you make international postgraduate students aware of the services offered by the International Students Office?

.....  
.....  
.....  
.....



.....  
.....

6. If No, what do you think are the reasons for (some) international postgraduate students not being aware of the services?

.....  
.....  
.....  
.....

7. Which services are mostly utilised by international postgraduate students?

.....  
.....  
.....  
.....

8. In your opinion why are these services the most utilised by international postgraduate students?

.....  
.....  
.....  
.....

9. In your opinion which services do you think are under-utilised by international postgraduate students?

.....  
.....  
.....  
.....

10. In your opinion why are these services under-utilised by international postgraduate students?

.....  
.....  
.....  
.....

11. What would you say are the problems experienced by international postgraduate students in obtaining information from the International Students Office?

.....  
.....  
.....  
.....  
.....

12. Do you cooperate (either formally or informally) with any other student office services on university/campus, e.g. Student Counselling Centre, Student Representative Council (SRC), etc., with regard to international postgraduate students?

12.1 Yes      [   ]                      12.2 No      [   ]

13. If Yes, please could you explain the nature of this cooperation?

.....  
.....  
.....  
.....  
.....

14. If No, please could you specify the reasons for this non-cooperation?

.....  
.....  
.....  
.....  
.....

15. How do you assist international postgraduate students to obtain university accommodation (especially if they are new to the university)?

.....  
.....  
.....  
.....  
.....

16. What problems do you experience when assisting the international postgraduate students to obtain university accommodation?

.....  
.....  
.....  
.....  
.....

17. If you do encounter problems, is anything being done to address these accommodation problems? Please elaborate.

.....  
.....  
.....  
.....  
.....

18. How do you support international postgraduate students to obtain a study visa-permit from the Department of Home Affairs?

.....  
.....  
.....  
.....  
.....

19. What problems do you experience when assisting international postgraduate students to obtain a study visa-permit?

.....  
.....  
.....  
.....  
.....

20. If you do encounter problems, is anything being done to address these study visa-permit problems? Please elaborate.

.....  
.....  
.....  
.....  
.....

21. How do you support international postgraduate students to obtain medical aid insurance?

.....  
.....  
.....  
.....  
.....

22. What problems do you experience when assisting the international postgraduate students to obtain medical aid insurance?

.....  
.....  
.....  
.....  
.....

23. If you do encounter problems, is anything being done to address these medical aid insurance problems? Please elaborate.

.....  
.....  
.....  
.....

24. Do you have a policy document that guides the services you provide to international postgraduate students? Please elaborate.

.....  
.....  
.....

25. In your opinion is this policy relevant for the current needs of international postgraduate students? Please elaborate.

.....  
.....  
.....  
.....  
.....

26. In your opinion is your office sufficiently funded by the parent organisation to deliver an efficient service to international postgraduate students? Please elaborate.

.....  
.....  
.....  
.....  
.....

27. In your opinion is your office sufficiently staffed to deliver an efficient service to international postgraduate students? Please elaborate.

.....  
.....  
.....  
.....

28. Does your office have appropriate amenities/facilities (e.g. building space and office equipment, etc.) to deliver an efficient service to international postgraduate students? Please elaborate.

.....  
.....  
.....  
.....

29. How do you provide information to international postgraduate students who are using your services?

.....  
.....  
.....  
.....

30. What problems do you encounter when you provide information to international postgraduate students?

.....  
.....  
.....  
.....

31. Do you have a website which provides information on the services you provide to international postgraduate students?

.....  
.....  
.....  
.....

32. How else do you promote your information services to international postgraduate students?

.....  
.....  
.....  
.....  
.....  
.....

33. Are there any new initiatives regarding information services for international students?  
Please elaborate.

.....  
.....  
.....  
.....  
.....  
.....

34. Is there anything else you would like to comment on regarding the information services you offer to international postgraduate students?

.....  
.....  
.....  
.....  
.....  
.....

**Thank you very much for your time.**

## Appendix 5: Informed consent



Dear Respondent,

Invitation to participate in a focus group discussion

My name is Moise Majyambere, a PhD candidate in Information Studies at the University of KwaZulu-Natal, Pietermaritzburg Campus, South Africa. I am conducting this study as part of the requirements for the Doctoral degree. The purpose of this study is to investigate the “**information seeking behaviour of Humanities/Arts international postgraduate students in public universities in KwaZulu-Natal Province, South Africa**”.

You are invited to participate in the research which will be conducted at your university. To fully comprehend the information seeking behaviour of international students, it is important to understand their information needs. The study will assist in determining whether the information services that are provided by the University meet these students’ information needs. It will also help to identify problems students encounter as they seek information. The findings may be able to assist the university to improve on information delivery systems for international students and at the same time, contribute to ensuring the efficient integration of international students at these South African universities.

Any information that is obtained in connection with this study and that can be identified with you will remain confidential and will be disclosed only with your permission. Please note that your name will not be included in the report and confidentiality will be maintained throughout the study.

Your participation in answering the questions is completely voluntary. You have the right to withdraw at any time during the study. Your permission is required for audio-recording. The focus group discussion will take approximately one hour. I appreciate the time and effort it would take to participate in this study.

Thank you.

Yours sincerely,

Moise Majyambere

University of KwaZulu-Natal  
Email: [majyamose@yahoo.fr](mailto:majyamose@yahoo.fr) or  
[208524104@stu.ukzn.ac.za](mailto:208524104@stu.ukzn.ac.za)  
Cell: 073 614 5712

**Supervisor:**

Professor Ruth Hoskins  
Information Studies  
School of Social Sciences  
University of KwaZulu-Natal  
[hoskinsr@ukzn.ac.za](mailto:hoskinsr@ukzn.ac.za)  
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**HSSREC Research Office:** Ms P Ximba  
Institution: University of KwaZulu-Natal  
Telephone number: +27 (0) 31 260 3587  
Email address: [ximbap@ukzn.ac.za](mailto:ximbap@ukzn.ac.za)

**Please complete this form**

**Title of study: “information seeking behaviour of Humanities/Arts international postgraduate students in public universities in KwaZulu-Natal Province, South Africa”.**

I....., hereby confirm that I understand the contents of this document and the nature of the research project, and I agree to participate in the research project as outlined in the document about the study. I consent / do not consent to have this focus group discussion interview recorded.

I acknowledge that I have been informed of the purpose of this focus group discussion interview. I am aware that participation in the study is voluntary and I understand that I am at liberty to withdraw from the project at any time, should I so desire.

**Participant**

Signature .....

Date: .....

Email: .....

**Researcher**

Signature .....

Date: .....

Email: .....



## Appendix 6: Focus group discussion guide

My name is Moise Majyambere, a PhD candidate in Information Studies at the University of KwaZulu-Natal, Pietermaritzburg Campus, South Africa. I am conducting this study as part of the requirements for the Doctoral degree. The purpose of this study is to investigate the **“information seeking behaviour of Humanities/Arts international postgraduate students in public universities in KwaZulu-Natal Province, South Africa”**.

The findings may assist these universities to improve on information delivery systems for international students and at the same time, contribute to ensuring the efficient integration of international students at these South African Universities. I will be extremely grateful if you could participate in a focus group discussion as part of my research. The focus group discussion interview will take approximately one hour. Your responses will be kept anonymous and confidentiality is guaranteed.

**Instructions (to be read to students): Students must feel free to answer the questions as honestly as possibly.**

1. What information do you need as an international postgraduate student in terms of your studies?

.....  
.....  
.....  
.....  
.....

2. What information do you need as an international postgraduate student in terms of your personal needs?

.....  
.....  
.....  
.....  
.....

3. What information sources do you use to obtain information related to your studies?

.....  
.....  
.....  
.....  
.....

4. What information sources do you use to obtain information related to your personal needs?

.....  
.....  
.....  
.....  
.....

5. Do you find these information sources you use for your studies useful? Please explain why.

.....  
.....  
.....  
.....  
.....

6. Do you find these information sources you use for your personal needs useful? Please explain why.

.....  
.....  
.....  
.....  
.....

7. What problems do you as an international postgraduate student encounter when seeking information related to your studies?

.....  
.....  
.....  
.....

8. How can such problems related to your studies be overcome?

.....  
.....  
.....  
.....  
.....

9. What problems do you as an international postgraduate student encounter when seeking information related to your personal needs?

.....  
.....  
.....  
.....  
.....

10. How can such problems related to your personal needs be overcome?

.....  
.....  
.....  
.....  
.....

11. Are you satisfied with information services supplied by the International Student Office (ISO) regarding:

11.1 Study visa-permit applications and extensions?

.....  
.....  
.....  
.....  
.....

11.2 Applying for medical aid cover?

.....  
.....  
.....  
.....  
.....

11.3 Obtaining International clearance?

.....  
.....  
.....  
.....  
.....

11.4 Any other areas of service by the ISO that you would like to comment on? Please specify.

.....  
.....  
.....  
.....  
.....  
.....

12. How can the information services provided by the ISO to international postgraduate students be improved?

.....  
.....  
.....  
.....  
.....

13. Are you satisfied with information services supplied by the library regarding:

13.1 Library catalogue (OPAC)?

.....  
.....  
.....



.....  
.....  
13.6 Short loan/Academic reserves?

.....  
.....  
.....  
.....  
.....

Interlibrary loan?

.....  
.....  
.....  
.....  
.....

Availability of Discussion rooms?

.....  
.....  
.....  
.....  
.....

13.10 Printing and photocopy facilities?

.....  
.....  
.....  
.....

13.11 Any other service offered by the library that you would like to comment on? Please specify.

.....  
.....  
.....

.....  
.....  
14. How can the information services provided by the library to international postgraduate students be improved?

.....  
.....  
.....  
.....  
.....

15. Do you have any other comments relating to your information needs? Please elaborate.

.....  
.....  
.....  
.....  
.....  
.....

**Thank you very much for your time.**

## Appendix 7: Sampling table used to determine sample size

**Table 7.1** Sample sizes for different sizes of population at a 95 confidence level (assuming data are collected from all cases in the sample)

Population	Margin of error			
	5%	3%	2%	1%
50	44	48	49	50
100	79	91	96	99
150	108	132	141	148
200	132	168	185	196
250	151	203	226	244
300	168	234	267	291
400	196	291	343	384
500	217	340	414	475
750	254	440	571	696
1 000	278	516	706	906
2 000	322	696	1091	1655
5 000	357	879	1622	3288
10 000	370	964	1936	4899
100 000	383	1056	2345	8762
1 000 000	384	1066	2395	9513
10 000 000	384	1067	2400	9595

**Source:** Sampling table (Saunders, Lewis and Thornhill 2009: 219)



**Appendix 8: Application for permission to conduct research at the UKZN**



University of KwaZulu-Natal  
Pietermaritzburg  
Pte Bag X01,  
Scottsville, 3209  
14<sup>th</sup> January 2014.

The Registrar  
Mr M C Baloyi  
University of KwaZulu-Natal  
Pte Bag X3630  
Durban

Dear Sir,

**RE: REQUEST FOR PERMISSION TO UNDERTAKE RESEARCH**

My name is Moise Majyambere (208524104), a PhD student in Information Studies in the School of Social Sciences, College of Humanities at the University of KwaZulu-Natal, Pietermaritzburg.

As part of my doctoral studies I am undertaking research on the 'information seeking behaviour of Humanities/Arts international postgraduate students in public universities in KwaZulu-Natal Province, South Africa'. My supervisor is Professor Ruth Hoskins. Some of the methods that will be used in gathering data for the research include a focus group discussion and questionnaires for international students and interviews with the Heads of International Student Offices. The outcomes of this study will be beneficial to South African academic institutions in serving this group of international postgraduate students to meet their information needs. These surveys will also contribute to ensuring the efficient integration of present and future international students in South African universities

The purpose of this letter is to request permission to conduct these interviews, distribute the questionnaires and arrange focus group discussions, and to request any other information that could assist this research. I intend to collect data from March-April 2014. The data collected will be treated with confidentiality and anonymity. I shall be very grateful for your assistance and I appreciate your cooperation in advance.

Yours sincerely,

Moise Majyambere.  
E-mail: [majyamose@yahoo.fr](mailto:majyamose@yahoo.fr) or [208524104@stu.ukzn.ac.za](mailto:208524104@stu.ukzn.ac.za)

## Appendix 9: Application for permission to conduct research at the UNIZULU



University of KwaZulu-Natal  
Pietermaritzburg  
Pte Bag X01,  
Scottsville, 3209  
10th September 2013.

DVC Research and Innovation  
Prof R Midgley  
University of Zululand  
Pte Bag X1001  
Kwa-Dlangezwa, 3886

Dear Sir,

### **RE: REQUEST FOR PERMISSION TO UNDERTAKE RESEARCH**

My name is Moise Majyambere (208524104), a PhD student in Information Studies in the School of Social Sciences, College of Humanities at the University of KwaZulu-Natal, Pietermaritzburg.

As part of my doctoral studies I am undertaking research on the 'information seeking behaviour of Humanities/Arts international postgraduate students in public universities in KwaZulu-Natal, South Africa'. My supervisor is Dr Ruth Hoskins. Some of the methods that will be used in gathering data for the research include a focus group discussion and questionnaires for international students and interviews with the Heads of International Student Offices. The outcomes of this study will be beneficial to South African academic institutions in serving this group of international postgraduate students to meet their information needs. These surveys will also contribute to ensuring the efficient integration of present and future international students in South African universities

The purpose of this letter is to request permission to conduct these interviews, distribute the questionnaires and arrange focus group discussions, and to request any other information that could assist this research. I intend to collect data from October-November 2013. The data collected will be treated with confidentiality and anonymity. I shall be very grateful for your assistance and I appreciate your cooperation in advance.

Yours sincerely,

Moise Majyambere.

E-mail: [majyamose@yahoo.fr](mailto:majyamose@yahoo.fr) or [208524104@stu.ukzn.ac.za](mailto:208524104@stu.ukzn.ac.za)

## Appendix 10: Application for permission to conduct research at the DUT



University of KwaZulu-Natal  
Pietermaritzburg  
Pte Bag X01,  
Scottsville, 3209  
10th September 2013.

The Deputy Registrar  
Dr T S Pillay  
Durban University of Technology  
Pte Bag X1334  
Durban, 4001

Dear Sir,

**RE: REQUEST FOR PERMISSION TO UNDERTAKE RESEARCH**

My name is Moise Majyambere (208524104), a PhD student in Information Studies in the School of Social Sciences, College of Humanities at the University of KwaZulu-Natal, Pietermaritzburg.

As part of my doctoral studies I am undertaking research on the 'information seeking behaviour of Humanities/Arts international postgraduate students in public universities in KwaZulu-Natal, South Africa'. My supervisor is Dr Ruth Hoskins. Some of the methods that will be used in gathering data for the research include a focus group discussion and questionnaires for international students and interviews with the Heads of International Student Offices. The outcomes of this study will be beneficial to South African academic institutions in serving this group of international postgraduate students to meet their information needs. These surveys will also contribute to ensuring the efficient integration of present and future international students in South African universities

The purpose of this letter is to request permission to conduct these interviews, distribute the questionnaires and arrange focus group discussions, and to request any other information that could assist this research. I intend to collect data from October-November 2013. The data collected will be treated with confidentiality and anonymity. I shall be very grateful for your assistance and I appreciate your cooperation in advance.

Yours sincerely,

Moise Majyambere.

E-mail: [majyamose@yahoo.fr](mailto:majyamose@yahoo.fr) or [208524104@stu.ukzn.ac.za](mailto:208524104@stu.ukzn.ac.za)

## Appendix 11: Research clearance from UKZN



17 January 2014

Mr Moise Majyambere  
School of Social Sciences  
Pietermaritzburg Campus  
UKZN  
Email: [majyamose@yahoo.fr](mailto:majyamose@yahoo.fr)  
[208524104@stu.ukzn.ac.za](mailto:208524104@stu.ukzn.ac.za)

Dear Mr Majyambere

### RE: PERMISSION TO CONDUCT RESEARCH

Gatekeeper's permission is hereby granted for you to conduct research at the University of KwaZulu-Natal towards your postgraduate studies, provided Ethical clearance has been obtained. We note the title of your research project is:

*"Information seeking behaviour of Humanities/Arts international postgraduate students in public universities in KwaZulu-Natal, South Africa."*

It is noted that you will be constituting your sample by randomly handing out questionnaires and conducting focus group discussions with international students and interviewing the Head of the International Student Office in the College of Humanities at UKZN.

Data collected must be treated with due confidentiality and anonymity.

Yours sincerely

**MR M C BALOYI**  
**REGISTRAR**

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#### Office of the Registrar

Postal Address: Private Bag X54001, Durban, South Africa

Telephone: +27 (0) 31 260 8005/2206 Facsimile: +27 (0) 31 260 7824/2204 Email: [registrar@ukzn.ac.za](mailto:registrar@ukzn.ac.za)

Website: [www.ukzn.ac.za](http://www.ukzn.ac.za)



Founding Campuses: ■ Edgewood ■ Howard College ■ Medical School ■ Pietermaritzburg ■ Westville

## Appendix 12: Research clearance from UNIZULU

**DEPUTY VICE-CHANCELLOR,  
RESEARCH AND INNOVATION**



**UNIVERSITY OF ZULULAND**

Website: <http://www.uzulu.ac.za>

Private Bag X1001  
KwaDlangezwa 3886

Tel: 035 902 6634  
Fax: 035 902 6222  
Email: [nbhengu@pan.uzulu.ac.za](mailto:nbhengu@pan.uzulu.ac.za)

Mr Majyambere  
University of KwaZulu-Natal  
Pietermaritzburg

Per email: [majyamose@yahoo.fr](mailto:majyamose@yahoo.fr)

16 November 2013

Dear Mr Majyambere

**REQUEST FOR PERMISSION TO CONDUCT RESEARCH AT UNIZULU: "INFORMATION-SEEKING BEHAVIOUR OF HUMANITIES/ARTS INTERNATIONAL POSTGRADUATE STUDENTS IN PUBLIC UNIVERSITIES IN KWAZULU-NATAL, SOUTH AFRICA"**

Your letter dated 10 September 2013 and subsequent emails refer.

Having received the provisional ethical clearance certificate dated 4 November 2013 from the University of KwaZulu-Natal, I hereby grant approval for you to conduct part of your research at UNIZULU, as per the methodologies stated in your letter of 10 September 2013.

I note that the UKZN has not yet issued a final ethical clearance certificate. This approval is therefore conditional upon production of such a certificate and the research may not commence without such a certificate.

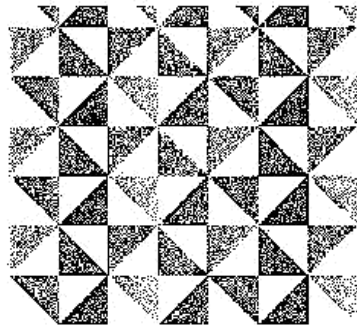
I wish you well in your research.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Rob Midgley', written over a horizontal line.

**Professor Rob Midgley**  
Deputy Vice-Chancellor, Research and Innovation

"Restructured for Relevance"



## Appendix 13: Research clearance from DUT

*Directorate for Research and Postgraduate Support  
Durban University of Technology  
Tromso Annexe, Steve Biko Campus  
P.O. Box 1334, Durban 4000  
Tel.: 031-3732576/7  
Fax: 031-3732946  
E-mail: [moyos@dut.ac.za](mailto:moyos@dut.ac.za)*

11<sup>th</sup> December 2013

Mr Moise Majyambere  
c/o Department of Information Studies  
University of Kwa-Zulu Natal

Dear Mr Majyambere

### **PERMISSION TO CONDUCT RESEARCH AT THE DUT**

Your email correspondence in respect of the above refers. I am pleased to inform you that the Institutional Research Committee (IRC) has granted permission for you to conduct your research at the Durban University of Technology. However, kindly note that the committee requires you to provide proof of full ethical clearance prior to you commencing with your research at the DUT.

We would be grateful if a summary of your key research findings can be submitted to the IRC on completion of your studies.

Kindest regards,  
Yours sincerely

A handwritten signature in black ink, appearing to read "Moyo".

**PROF. S. MOYO**

**DIRECTOR: RESEARCH AND POSTGRADUATE SUPPORT**

04 November 2013

## Appendix 14: Provisional approval ethical clearance

**Mr Moise Majyambere (208524104)**  
School of Social Sciences  
Pietermaritzburg Campus

**Protocol reference number: HSS/1096/013D**

**Project title: Information seeking behaviour of Humanities / Arts international Postgraduate students in public universities in KwaZulu-Natal**

Dear Mr Majyambere,

### **Provisional Approval - Expedited**

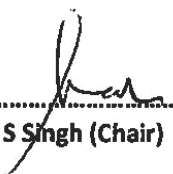
I wish to inform you that your application in connection with the above has been granted provisional approval, subject to the following information being provided:

#### **1. Relevant Gatekeeper permission letters being obtained**

Kindly submit your response to Dr Shenuka Singh (Chair),

**This approval is granted provisionally and the final approval for this project will be given once the above condition has been met. Research may not begin until full approval has been received from the HSSREC.**

Yours faithfully

  
.....  
**Dr S Singh (Chair)**

/ms

cc Supervisor: Dr Ruth Hoskins  
cc Academic Leader Research: Professor Sabine Marschall  
cc School Administrator: Ms Nancy Mudau

28 January 2014

**Appendix 15: Full approval ethical clearance**

**Mr Moise Majyambere (208524104)**  
**School of Social Sciences**  
**Pietermaritzburg Campus**

**Protocol reference number: HSS/1096/013D**

**Project title: Information seeking behaviour of Humanities / Arts international Postgraduate students universities in KwaZulu-Natal**

Dear Mr Majyambere,

**Full Approval – Expedited**

With regards to your response to our letter dated 04 November 2013, the Humanities & Social Sciences Research Ethics Committee has considered the abovementioned application and the protocol have been granted **FULL APPROVAL**.

**Any alteration/s to the approved research protocol i.e. Questionnaire/Interview Schedule, Informed Consent Form, Title of the Project, Location of the Study, Research Approach and Methods must be reviewed and approved through the amendment/modification prior to its implementation. In case you have further queries, please quote the above reference number.**

**Please note: Research data should be securely stored in the discipline/department for a period**

I take this opportunity of wishing you everything of the best with your study.

Yours faithfully



.....  
**Dr Shenuka Singh (Chair)**

/ms

cc Supervisor: Dr Ruth Hoskins  
cc Academic Leader Research: Professor Sabine Marschall  
cc School Administrator: Ms Nancy Mudau