Abstract

Problem-based learning (PBL) has been proved to be effective in building the necessary skills and personal qualities that employers are looking for. This paper reports on an exploratory study of Chinese international students’ perceptions of their PBL experience in tourism-related courses at universities in the UK. The findings suggested that the students found the PBL more interactive than their old learning style, and allowed them to learn on their own. However, some negative perceptions were also expressed. In particular, the students had a large psychological obstacle when it came to debating a subject with their lecturers.

Keywords: learning styles, problem-based learning, Chinese international students, tourism

Introduction

Britain has become the top destination for international students from mainland China, ahead of America (the previous favourite), and Germany, where higher education is virtually free (Bird and Owen, 2004). The figures are startling. In 2003, the number of Mainland Chinese students in British universities jumped from 17,700 to 32,000, and six years ago it was just 2,500 (August, 2004).

China has abundant resources for tourism, which provide an advantage for developing the industry. Tourism in China has been developing rapidly since a reform and opening-up policy was adopted in late 1978. Now it has matured into an industry of respectable magnitude with a fairly complete industrial make-up. It has become one of the fastest developing industries within the national economy, providing a new economic focus for the 21st century. Developing economic infrastructure and continuously increasing disposable incomes offers great potential for the Chinese tourism industry. Increasingly favourable and flexible governmental tourism policies are opening up the Chinese tourism industry to the world, and enabling more Chinese nationals to step out of their country.
The tourism industry is looking for people with good reasoning, communication, interpersonal, and leadership skills, who are also very self-motivated and independent. Student-centred learning activities such as problem-based learning (PBL), have been shown to be effective in creating more active classrooms and building the skills and personal qualities that future employers are looking for (Lo, 2004). These activities have been regularly adopted in higher educational institutions in the UK. However, the Chinese style of learning is different from that of British students, an example of which is the lack of student-centred learning activities within Chinese learning styles (Chan, 1999).

Therefore, the purpose of this paper is to report on an exploratory study of Chinese international students’ perceptions of their PBL experience in tourism-related courses at universities in the UK. This is a different style of learning experience for Chinese international students. Although it has been suggested as a good way to develop the necessary skills and personal qualities that employers in the tourism industry require, it is important to obtain their feedback in order to provide insights for the future alteration and enhancement of courses.

**Literature review**

**Chinese style of learning**

Redding (1990) concluded that Chinese people display five characteristics which can be taken to summarise Chinese thinking and learning: emphasis on perception of the concrete idea; non-development of abstract thought; emphasis on particulars not universals; practicality as the central focus and concern for reconciliation, harmony and balance. The predominant view in the literature is that Chinese students prefer passive teaching methods such as lectures and demonstrations. Problem-solving, explorative teaching methods employed in the West would not fit with the Confucian-derived preferences for rote learning (Chan, 1999; Thompson and Gui, 2000; Berrell et al., 2001; Nield, 2004). Problem-solving ability is largely neglected with student achievement assessed largely through written examinations, which are not designed to test ability in working with others and solving practical problems. In addition, Chinese students may be more concrete and pragmatic in evaluating ideas than their western counterparts, but they may also suffer from a lack of creativity, as well as being less likely to explore new directions to which they are unaccustomed (Harding, 1997). The problems are more pronounced when Chinese students arrive at Western universities for the first time and are faced with learning styles and approaches that are alien to them.

Chinese learners have been brought up to respect knowledge and wisdom; as part of their cultural upbringing they have been socialised to respect teachers and those who provide them with knowledge (Chan, 1999). Due to high power distance, the teacher is held in great respect; students would regard it as disrespectful to ask questions or debate with teachers in class. These authority relationships between students and lecturers reflect Confucianism and the high power distance in Chinese culture more generally (Dimmock and Walker, 1998).

**Problem-based learning**

PBL has a history of over 30 years of application in university education. The original form of pure PBL used in medical training has been modified and adapted over the years by other disciplines including nursing, psychotherapy and business. It is ‘an approach to learning through which many students have been enabled to understand their own situations and frameworks so that they are able to perceive how they learn, and how they see themselves as future professionals’ (Savin-Baden, 2000:2).

The starting point for learning should be a problem situation, a query or a puzzle that the learner wishes to solve, and the core characteristic is the ‘student-centredness’ of the approach (Boud, 1985). It is based on the assumption that learning through problem situations is much more effective than memory-based learning in creating a usable body of knowledge. PBL encourages the development of skills such as communication, report writing, teamwork, problem-solving and self-directed learning (Boud, 1985, Reynolds, 1997) and aids better retention of the knowledge acquired (Blake et al., 2000;
Schuler and Fincham, 1998). Students learn through a combination of group process, the resource and the teacher (Stokes et al., 1997).

When PBL is integrated into a traditional lecture-based curriculum, it promotes knowledge construction by providing an introduction to basic knowledge in the discipline during the first year, and integrating the concepts during the second year (Doig and Werner, 2000). It empowers students to reflect on their existing levels of understanding, to follow some of their own lines of enquiry and to develop their own cognitive maps of subject areas (Reynolds, 1997).

Students’ perceptions of PBL
A number of studies on students’ perceptions towards PBL have been conducted. Chung and Chow (1999, 2004) found that students were motivated to trying a more active learning mode, and to use more study skills in PBL than with other traditional teaching methods. It also allows students to attain a higher order of skills in organising and integrating information through critical evaluation. Norman and Schmidt (1992) found that students became more independent thinkers who were independent learners (more responsible for their own learning). Stokes et al. (1997) reported that interpersonal, leadership and metacognitive skills were required during the PBL experience. Creativity, teamwork, self-management, communication and problem-solving skills were also enhanced. In some research (Lo, 2004; Martin et al., 1998; Schelton and Smidt, 1998), students claimed that they could better integrate theory into practice.

Chung and Chow (1999) reported that in addition to the students’ own evaluation of the skills developed through PBL, they also form effective attitudes towards the experience. Students found the experience rewarding, interesting, challenging and enjoyable. They are motivated and willing to put in effort for pre-tutorial preparation (Mackinnon, 1999; Stokes, et al, 1999). A social environment is also created through students’ interaction (Harland, 2002). Friendship, mutual support, and understanding are built up among fellow classmates (Chung and Chow, 1999).

However some negative attitudes have also been reported in previous studies. Stokes et al. (1999) reported that students found it difficult to cope with the heavy workload. Woods (1994) reported that for students, PBL was frustrating and anxiety provoking. Some are not comfortable with the accuracy of the information they learn from their classmates (Chung and Chow, 1999; Lo, 2004).

Methodology
This research adopted both qualitative and the quantitative approaches to investigate Chinese international students’ perceptions of PBL in the UK. After detailed secondary research, a questionnaire was developed which included four parts. The first part was personal information such as gender, location they were studying at, etc. The second part was related to perceptions of Chinese styles of learning. The third part was concerned with positive and negative perceptions of the PBL experience. Both the second and third questions consisted of multiple choices. The fourth part was an open-ended question about suggestions on how to improve the course. All the questions were adapted from similar research (see Lo, 2004; Chung and Chow, 2004). Consequently, the author felt that the continued use of similar questions for this research would allow comparisons to be made across the studies.

Several hundred colleges and universities across the UK now offer full-time courses at a variety of levels in travel, tourism and leisure. Because of limited time and finance for this research, the researcher chose London, Leeds, Sheffield and Derby as four cities in which to base the research. A total of 100 questionnaires were send out to universities in the above four cities, and 85 questionnaires were returned from students who were studying tourism-related subjects. There were 14 students who left their telephone numbers for further interviews. Finally, eight in-depth interviews were developed into case studies. During the interviews, the interviewees were asked their perceptions of their PBL experiences and their suggestions on improvements to the learning experience.
In the data analysis stage, identity numbers were assigned to each completed questionnaire. Descriptive statistics of frequencies and percentages were compiled for the questionnaires while content analysis was used to consider the suggestions made by students in the questionnaires and in-depth interviews. The results of the questionnaire survey and the qualitative feedback from the interviews were also summarised, and then verified by the students who had left their contact numbers.

Findings

Student profile
In the questionnaire survey, all the respondents were full-time students, 65 of them were doing their master’s degree and 20 of them were involved in undergraduate study. In terms of geographic distribution, 41 of them were from London, 25 of them were studying in Leeds, 4 of them were at Sheffield, and 15 of them were based in Derby. Sixty-nine per cent of the respondents (59 out of 85) were female.

Perceptions of the Chinese style of learning
In the questionnaire survey, the students were first asked about their perceptions of the Chinese style of learning (see Table 1). Table 1 shows that 65.9 per cent of respondents thought that the Chinese style of learning had structured content, 76.5 per cent found that information delivered by lecturers in China was more concise and accurate; 88.2 per cent reported that notes were always provided. However, the respondents did report that little interaction between students and lecturers (82.4 per cent) occurred within the Chinese style of learning.

<table>
<thead>
<tr>
<th>Description</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Structured content</td>
<td>56</td>
<td>65.9</td>
</tr>
<tr>
<td>Information is concise and accurate</td>
<td>65</td>
<td>76.5</td>
</tr>
<tr>
<td>Notes are provided</td>
<td>75</td>
<td>88.2</td>
</tr>
<tr>
<td>Little interaction</td>
<td>70</td>
<td>82.4</td>
</tr>
</tbody>
</table>

Table 1: Perceptions of the Chinese style of learning

A male interviewee, aged 32, who was doing his master’s degree in conference management, provided a very good summary of the interviewees’ perception of the Chinese style of learning:

“The Chinese style of learning is typically teacher-centred, stressing recall of facts, and uses of rote learning. It uses strict exams to develop academic knowledge. It is a typical style in which concepts come first then skills. However, although it is a boring approach to learning about new facts, you know exactly what you should learn.”

Other interviewees showed their preference when they were asked about their perceptions of Chinese style of learning. For instance:

“I am comfortable with the Chinese style of learning because all the content material are taught and explained by the lecturers. In other classes, I would memorise textbook readings without even understanding them, in order to prepare for examinations.”

“I feel more secure and confident to learn new knowledge by the Chinese style of learning, because I know exactly what I have to learn.”

“The Chinese style of learning is a boring approach. I easily forgot most of memorised facts, as I never had a chance to relate them to the real world.”
Positive perceptions of the PBL experience

Table 2 shows that 89.4 per cent of the respondents admitted that PBL made them feel satisfied when their ideas were accepted by classmates. Eighty per cent reported that PBL was more interactive than their own learning style. A majority of the students also reported that PBL allowed them to learn on their own. However, only a small group of the students (29.4 per cent) thought that PBL enabled them to learn more effectively and to learn from classmates. And only 6 students (7.1 per cent) supported the view that PBL improved creativity.

<table>
<thead>
<tr>
<th>Description</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interactive</td>
<td>68</td>
<td>80.0</td>
</tr>
<tr>
<td>Satisfaction when ideas accepted by classmates</td>
<td>76</td>
<td>89.4</td>
</tr>
<tr>
<td>Learn more effectively</td>
<td>25</td>
<td>29.4</td>
</tr>
<tr>
<td>Learn on their own</td>
<td>60</td>
<td>70.6</td>
</tr>
<tr>
<td>Learn from classmates</td>
<td>25</td>
<td>29.4</td>
</tr>
<tr>
<td>Improve creativity</td>
<td>6</td>
<td>7.1</td>
</tr>
</tbody>
</table>

Table 2: Positive perceptions of the PBL experience

All the interviewees gave positive perceptions of their PBL experience. Two of the interviewees commented that they enjoyed the PBL sessions, as they were able to talk about what they had learned and they also gained satisfaction when their ideas were accepted by their team members.

“I enjoyed the PBL sessions during my study especially the event marketing subject. Usually we were given a case study and then we formed different groups. Each student was responsible for a part of the case. In the meeting, each of us then gave a small explanation for the other group members about our own part of the case and our own opinions. I felt so satisfied when my presentation was accepted by the other group members. I also learned a lot from my team mates who had sound work experience of marketing.”

“I found PBL allowed me to learn more actively. Instead of being taught by lecturers, I did a lot of readings about my case and then listed my concerns and the reasons for them. In the class, after my presentation, I answered my lecturer’s questions and solved classmates’ problems as well. Through this kind of learning, I studied on my own and gained knowledge from others.”

Negative perceptions of the PBL experience

Table 3 shows the students’ negative perceptions of the PBL experience. The students were very uncertain on the accuracy of the knowledge acquired (80 per cent of respondents admitted their uncertainty). This was supported by the fact that 70.6 per cent of respondents were not sure if they had understood the material content and were not sure about what do for the problems (60 per cent). Twenty-eight of the responses (32.9 per cent) claimed time was wasted in class, and it was also felt by some that teaching was not focused (32.9 per cent). Meanwhile, 28.2 per cent of the respondents also complained that the workload was heavy and required extra effort and work outside class.

<table>
<thead>
<tr>
<th>Description</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uncertainty on accuracy of knowledge acquired</td>
<td>68</td>
<td>80.0</td>
</tr>
<tr>
<td>Not sure if they’ve understood the content material</td>
<td>60</td>
<td>70.6</td>
</tr>
<tr>
<td>Not sure about what to do for the problems</td>
<td>51</td>
<td>60.0</td>
</tr>
</tbody>
</table>
The interviewees had negative perceptions that were similar to the respondents of the questionnaire survey. Their uncertainty was emphasised in different ways by several interviewees.

“After PBL sessions, I was often unsure about what exactly I had learnt in class.”

“My English was not very good. Sometimes I wasn’t sure if I had properly understood the case.”

“Once I graduated from my university in China, I came to Britain to do my master’s degree. I did not have any work experience. Sometimes, PBL sessions were a headache. After reading the case study, I found out the problems, but I was not sure whether my solutions were realistic or not.”

Many of the interviewees admitted that there was a big psychological obstacle for them when it came to debating a subject with their lecturers.

“I am happy to discuss problems with my team mates. However, I did find that I had a huge difficulty when arguing with my lecturers, especially when they were wrong about some issues. I think this is a problem that most Chinese students in the UK would have.”

“In China, we normally accept what lecturers tell us, and respect what they say. In the UK, lecturers encourage us to argue about issues, especially in PBL sessions. When my opponent was older than me, even though I knew he/she had a wrong idea, I would not argue with him or her. Because I feel uncomfortable arguing with a person who is older than me, and possibly also has more practical skills and experience than me.”

**Students’ suggestions on how to improve the lecturing**

The final part of the questionnaire survey asked the students to give their suggestions about ways to improve lectures. “Lecturers should teach more” was mentioned by 56 students in the survey. Forty-eight students commented that there should be a balance between traditional lectures and PBL exercises in class. In terms of using PBL exercises in class, in total, 24 students thought that lecturers should teach content material before PBL exercises and 20 thought that more guidelines on how to work on the problems should be provided. Also, 25 of them proposed that the required list of reading be cut in order to avoid heavy workloads.

All the interviewees showed enthusiasm similar to the respondents of the questionnaire survey. They were very keen to give suggestions about how to improve lecturing in the UK. In order to make sure that they could learn as much as possible whilst in the UK, their suggestions were about combining the Chinese style of learning with that of PBL during lectures in British classes.

“In British classes, most of time you have to learn by yourself instead of being taught by the lecturers. A lot of things I wrote in my assignments were brand-new to me. I think lecturers should teach more and then have one or two PBL sessions at end of each semester.”

“I did not have any experience on PBL before I came to the UK. It was so frustrating when we were having PBL sessions. To me, PBL sessions really meant wasting time in class. I think lecturers should
Huang, R. (2005) Chinese International Students’ Perceptions of the Problem-Based Learning Experience

give some guidelines for students about how to work on the problems.”

“As a Chinese student, I am very comfortable with Chinese style of learning. However, this doesn’t mean I cannot understand and use PBL approach. I think that when I learn new knowledge I use the style of learning which is most suitable for me.”

Discussion

With reference to positive attitudes towards the PBL experience, the results of this study are similar to Lo’s (2004) research on Hong Kong students’ experiences in PBL courses. The students enjoyed the interactions among themselves and with the lecturers. They found that PBL allowed them to learn on their own. They felt satisfied when their ideas were accepted by their classmates. This result resembles the study by Mierson and Parikh (2000) and Harland (2002), that a social environment was created among group members. However, this research found only a small group of the students thought PBL was a more effective way for them to learn. This result was different from Lo’s (2004) and Chung and Chow’s (1999) research which both suggested that PBL was a more effective way for students to learn.

The respondents’ negative perceptions towards PBL were consistent with the findings from previous studies. ‘Uncertainty about the accuracy of the acquired knowledge’ was the descriptor most frequently mentioned. Their uncertainty also showed in relation to the completeness of content material and how to approach the problem. However, although ‘heavy workload’ was one of the negative perceptions held by the students, it was not as serious as Lo (2004) and Stokes et al. (1997) suggested.

From the students’ suggestions, it is easy to see that Chinese students might have difficulties adjusting to this new style of learning experience, which was a total shift from ‘teacher-oriented teaching’. These suggestions could be taken into consideration for future modification of courses. The students may be more receptive to the PBL experience if they are involved in the process of deciding what they want to learn, and how to learn at the beginning of the course. The majority of the suggestions from the students lean towards ‘teacher-centred teaching’. If all these suggestions were to be implemented, it may actually defeat the purpose of offering the PBL sessions. Therefore, a combination of traditional lectures with the PBL sessions at the beginning of the semester and then progressively moving towards more student-driven PBL may possibly be a way to make Chinese students more receptive to this new learning method.

Conclusion

All of the respondents had a good understanding about the Chinese style of learning, although some complained there was little interaction in their learning process. Although not all respondents had positive perceptions of PBL, it is still encouraging to see that some respondents expressed positive attitudes towards this new experience, and that it made them learn more on their own and share new knowledge with classmates. These qualities of independence and motivation are exactly what the tourism industry is looking for. The negative perceptions held by the respondents and the interviewees were understandable as for most of them it was the first time that they had been exposed to this new learning method. Their negative perceptions and suggestions provide useful information to further improve PBL sessions and, more generally, course design in the UK for international students.

Because this is only a case study of Chinese international students, who were doing their studies related to tourism, this result should not be generalised to the larger population of Chinese international students in the UK, or to PBL courses offered in other disciplines. Furthermore, it may also be worthwhile to measure the effectiveness of PBL in developing the skills that the tourism industry is looking for.
References

Huang, R. (2005) Chinese International Students’ Perceptions of the Problem-Based Learning Experience

Woods, D. R (1994) Problem-Based Learning: how to gain the most from PBL. Waterdown.