A Systematic Literature Review of Research into Career Development Interventions for Workforce Development

Final Report

By

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The Centre for Guidance Studies (CeGS) is a research and development unit based at the University of Derby. The Centre aims to bridge the gap between guidance theory and practice. It supports and connects guidance practitioners, policy-makers and researchers through research activities and learning opportunities; and by providing access to resources related to guidance and lifelong learning.

CeGS aims to:

- Conduct and encourage research into guidance policies and practices;
- Develop innovative strategies for guidance in support of lifelong learning;
- Provide resources to support guidance practice across all education, community and employment sectors.

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# Table of Contents

Executive Summary....................................................................................................... 1  

Chapter One: Introduction ............................................................................................. 7  

Chapter Two: The Research Design Process ................................................................ 19  

Chapter Three: Strengths and Limitations of the Systematic Literature Review Process ................................................................................................................................. 27  

Chapter Four: The Evidence ........................................................................................ 31  

Chapter Five: Conclusions and Recommendations ..................................................... 41  

Chapter Six: Bibliography and Research Report Summaries ......................................... 45  

Appendices:  

Appendix 1: References................................................................................................ 67  
Appendix 2: Project Team and Steering Group............................................................ 73  
Appendix 3: Further information on databases............................................................ 75  
Appendix 4: Search strategy for electronic databases .................................................. 79  
Appendix 5: Search terms............................................................................................. 81  
Appendix 6: Data extraction instrument......................................................................... 83
Executive Summary

Introduction

The recently published Skills White Paper (2005)\(^1\) outlines opportunities and barriers that affect individuals’ access to high quality training and jobs, with a series of proposals and strategies designed to address these key issues. Frequent reference to the tailoring of information and guidance to help individuals explore their career, training and personal development options as they move in, through, and out of workplace settings, demonstrates a general recognition that career development interventions could offer individuals and the UK economy greater potential for social and economic prosperity.

The Department for Education and Skills (DfES), Engaging Adults in Learning Division, commissioned the Centre for Guidance Studies, (CeGS), University of Derby, and the Institute for Employment Research, (IER), University of Warwick, to undertake a systematic literature review of research evidence on career development initiatives, both within and outside of the workplace. The primary focus being to concentrate on research findings that specifically relate to initiatives at level 2 or below.

Aim

The review identifies research evidence in a systematic and transparent way in order to ascertain what career development interventions (CDIs) motivate employees to engage in learning for work. Other factors that influence the outcomes of workforce development are also explored.

Objectives

The review was designed to:

- ensure synergy with current work in the area of workforce development, such as the Economic and Social Research Council’s (ESRC) Teaching and Learning Research Project (TLRP), in order to generate a comprehensive and rigorous evidence base;
- contribute to the development of, and add value to, the National Guidance Research Forum (NGRF) and the National Library Resource for Guidance (NLRG);
- capture and disseminate research findings in order to motivate practitioners, managers and policy-makers to engage in evidence-based practice; and
- help inform the UK research agenda by identifying critical questions that need to be addressed in the future.

Research scope and methodology

The DfES commissioned the systematic literature review in April 2004. The literature review process was adapted from a methodology developed by the EPPI-Centre, Institute of Education, University of London. Our research question focused on:

‘What career development interventions, at level two or below, from within and outside the workplace, motivate employees to engage in learning for work?

With the sub-question:

What internal and/or external factors influence the outcomes of workforce development?

The process consisted of five distinct phases that included:

- the systematic identification of potentially relevant studies, using a wide range of electronic and paper-based library sources;
- the application of pre-determined inclusion and exclusion criteria derived from the research question to report titles, abstracts and full texts;
- in-depth examination of studies which met the pre-determined inclusion and exclusion criteria in order to assess the quality of the study and extract evidence in support of the in-depth review;
- the development of a framework for data analysis and identification of key themes; and
- the presentation of review findings.

From over 77,000 articles that were initially identified, the research team distilled the available research data and completed an in-depth review of 27 research studies that the met set criteria. In order to ensure consistency between the research teams, regular face-to-face meetings and teleconferences were held, including extensive e-mail consultation.
Definitions of career development interventions

Career is defined as a ‘sequence of life experiences over time’ (Arthur, 1989). As such, career development involves the creation of a career pattern, decision-making style, integration of life roles, values expression, and life-role self concepts (Herr and Cramer, 1996). Career development interventions (CDIs), defined broadly, involve any activities that empower individuals to cope effectively with career development tasks (Spokane, 1991). Using this conceptual framework, the research team reviewed a wide range of career development interventions.

The evidence

The relationship between guidance, careers, advice, information and counselling is elusive and contested territory and the misuse of terminology among practitioners often leads to confusion. For example, it is not uncommon for professional career specialists to use the terms ‘career’ and ‘work’ interchangeably. Also, the interface between ‘career guidance’, ‘career management and development’ and ‘career coaching’ is often inconsistently represented, particularly across professional associations who use a variety of terminology to define their work. This lack of precision conveys conflicting messages to individuals and employers thus serving as a barrier to advancing the efficacy of career development interventions within and outside of the workplace.

Research findings indicate that career development activities are made available through a variety of formal and informal mechanisms. Access to career development services largely depends on local policies and availability of provision both within and outside of the workplace. In some cases, career development interventions are linked to formal performance review and appraisal systems, especially within some large companies; conversely, informal reviews undertaken by peers raise individual levels of awareness of personal growth and development needs.

At least four main categories are derived from the literature research findings. This are: (i) formal training/development, within and outside the workplace; (ii) informal training/development, within and outside the workplace; (iii) human resource led initiatives; and (iv) involvement of intermediaries.

Conclusions and recommendations

In assessing the body of available evidence, a key consideration is the depth and quality of research currently available to substantiate the outcomes of career development interventions, aimed at level two or below, and how these motivate employees to engage in learning for work.

The review findings show that many studies focus on ‘process’ and/or ‘activities’ rather than the learner ‘outcomes’ from career development interventions.

There appears to be a lack of robust quantitative studies, longitudinal research and comparative studies that focus on outcomes from career development interventions.
The review has successfully identified that the impact of career development interventions are ‘context’ dependent, and that there is an interaction between context and learning factors influencing employees’ motivation for learning at or for work.

In many cases, research was insufficient in terms of assessing the outcomes of employee development schemes (EDS) and processes designed to inform and motivate individuals in learning and personal development. In addition, the distinction between employee and employer benefits is not always clearly differentiated in the research literature.

The key recommendations signify main areas where action is needed to enrich the quality of available research, and to address existing gaps in research. The recommendations are addressed to policy-makers, researchers, trainers, managers and practitioners and are specifically linked to (i) engaging with ongoing research; (ii) developing more longitudinal research studies; (iii) exploring quantitative research study options; and (iv) initiating more focused research that examines the process of career development interventions within and outside the workplace and its effects.

Acknowledgements

The project team would like to express their sincere gratitude for the funding received from the Department for Education and Skills (DfES), Access to Learning for Adults, to support this review.

The Centre for Guidance Studies (CeGS) and the Institute for Employment Research (IER) are also grateful to the National Guidance Research Forum (NGRF) Strategic Group who acted as an Advisory Group for the project. We would also like to thank Dr. Alan Brown (Principal Research Fellow, Warwick University) who acted as critical reader to the project. In addition, Lisa Flint (Visiting CeGS Associate), Geoff Gratien (CeGS Senior Associate), and Michelle Wood (CeGS Research Assistant) who provided invaluable support throughout the project.

The Centre for Guidance Studies, University of Derby, has undertaken two systematic literature reviews with the support of the Evidence for Policy and Practice Information and Co-ordinating Centre (EPPI-Centre), which is part of the Social Science Research Unit (SSRU), Institute of Education, University of London. The underpinning principles, along with key elements of the EPPI-Centre approach, have informed the development of the methodology for this review. The team is, therefore, indebted to the EPPI-Centre for their knowledge and expertise in systematic literature review techniques.
Feedback

CeGS and IER would be pleased to receive feedback on the research and this report. We hope the findings prove helpful to a range of organisations in planning new policy and practice initiatives.

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Chapter One: Introduction

1.1 The research project, commissioned by the Department for Education and Skills (DfES), Engaging Adults in Learning Division, provides a review of research evidence on career development initiatives, both within and outside of the workplace. It offers a summary analysis of key findings that have been shown to enhance employee motivation to engage in learning for work. It also provides definitions of ‘career development interventions’ to help contextualise the inter-relationships that exist between individuals, learning and work. Finally, it offers commentary on the key issues arising from findings from national and international research and highlights key challenges associated with choosing appropriate career development interventions that bring about positive change for individuals, business and the UK economy.

Aim and objectives

1.2 The overall aim was systematically to identify and review research evidence in order to ascertain what career development interventions motivate employees, at level 2 or below, to engage in learning for work.

1.3 The literature review focused on research that identified career development interventions, both within and outside the workplace, and provides a commentary on the reported outcomes of such interventions on employees’ motivation to learn. We concentrated on interventions at level 2 or below, primarily, although not exclusively, aimed at unskilled and semi-skilled employees, because of the particular emphasis in government information, advice and guidance (IAG) policy (DfES, 2003).

1.4 More specifically, the objectives were to:

- ensure synergy with current work in the area of workforce development, such as the Economic and Social Research Council’s (ESRC) Teaching and Learning Research Project (TLRP), in order to generate a comprehensive and rigorous evidence base;

- contribute to the development of, and add value to, the National Guidance Research Forum (NGRF) and the National Library Resource for Guidance (NLRG);

- capture and disseminate research findings in order to motive practitioners, managers and policy-makers to engage in evidence-based practice; and

- help inform the UK research agenda by identifying critical questions that need to be addressed in the future.
Research question

1.5 The research question below was developed in response to current government policies designed to improve workforce qualifications and skills, increase productivity levels, and improve the UK’s economic competitiveness within a global market.

What career development interventions, at level two or below, from within and outside the workplace, motivate employees to engage in learning for work?

With the sub-question:

What internal and/or external factors influence the outcomes of workforce development?

Methodology

1.6 The review process draws upon best practice from within the EPPI Centre\(^2\), Institute of Education, University of London systematic literature review process, combined with the research expertise from the Centre for Guidance Studies (CeGS), University of Derby and Institute for Employment Studies (IER), Warwick University. The study consisted of a number of distinct phases as outlined below:

- **searching**: i.e. the systematic identification of potentially relevant studies, using a wide range of electronic and paper-based library sources;

- **screening**: i.e. the application of pre-determined inclusion and exclusion criteria derived from the research question to report titles, abstracts and full texts;

- **data-extraction**: i.e. in-depth examination of studies which meet the pre-determined inclusion and exclusion criteria in order to assess the quality of the study and extract evidence in support of the in-depth review;

- **synthesis**: i.e. the development of a framework for data analysis and identification of key themes; and

- **reporting and dissemination**: i.e. presentations of review findings.

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*CeGS completed two systematic reviews with the support of the EPPI-Centre: ‘A systematic review of recent research (1988 - 2003) into the impact of careers education and guidance on transitions from Key Stage 3 to Key Stage 4’ and ‘A systematic literature review of research (1988-2004) into the impact of career education and guidance during Key Stage 4 on young people’s transitions into post-16 opportunities’. These reviews are published at: http://eppi.ioe.ac.uk/EPPIWeb/home.aspx?page=/reel/reviews.htm*
Defining Career Development Interventions (CDIs)

1.7 Career development interventions are shaped, in part, by how we define our terms. The relationship between guidance, careers, advice, information and counselling is elusive. Miller's (1982) proposition that guidance consists of five activities (informing, advising, teaching, counselling and feeding back) represents one way of making sense of the relationship. This conceptualisation of 'guidance' as consisting of a number of related activities was subsequently adapted and developed, for example, by Oakeshott (1990) and SCAGES (1991). No one definition of guidance, however, is generally accepted in the UK (Killeen and White, 1992; Hawthorn and Butcher, 1992). This confusion was confirmed by the [then] Lead Body for Advice, Guidance and Counselling in their Newsletter (March, 1993) which reported that 'there is considerable inconsistency in definition and function of advice, guidance and counselling', and that a feasibility study which they have undertaken had been 'haunted by difficulties with terminology and definitions arising out of a lack of clarity about the differences between advice, guidance and counselling.' Various terms, which variously combine 'guidance', 'counselling' and 'careers', are used to imply subtle, but important distinctions in practice, for example, guidance, careers guidance, vocational guidance, vocational counselling, adult guidance, educational guidance, careers counselling, careers education and guidance (Bimrose and Wilden, 1994).

This diversity is reflected throughout Europe. A study of guidance and counselling for higher education across seven European countries revealed considerable inconsistency in the use of terms used for pre-entry guidance and counselling services (Bimrose, 1996). For example, in Bulgaria, they were called ‘District Career Guidance and Counselling Offices’; in France, they were known as Centres for Information and Guidance; ‘Guidance and Counselling Services’ in Ireland and Sweden; and ‘Employment Services’ in Slovenia.

An examination of practice in the area reflects this terminological confusion. Whilst 'counselling' has succeeded in establishing itself with a professional body (British Association for Counselling and Psychotherapy) that unifies various interest groups and performs various umbrella functions, 'guidance' remains a more fragmented area of activity. Watts (1991, p232) identifies four professional associations established by guidance practitioners - the Institute of Careers Officers (subsequently renamed the Institute of Careers Guidance), the National Association of Careers and Guidance Teachers, the Association of Graduate Careers Advisory Services and the National Association for Educational Guidance for Adults. These associations represent separate but related areas of guidance practice, with others emerging (like the Association of Careers Professionals which represents practitioners in the private sector).

Herr and Cramer (1996) argue that the misuse of terminology among practitioners leads to confusion. For example, it is not uncommon for professional career specialists to use the terms ‘career’ and ‘work’ interchangeably. Also, the interface between ‘career guidance’, ‘career management and development’ and ‘career coaching’ is often inconsistently represented, particularly across professional associations who use a variety of terminology to define their work. This lack of precision conveys conflicting messages to individuals and employers thus serving as
a barrier to advancing the efficacy of career development interventions within and outside of the workplace.

1.8 In this context, ‘career’ is defined as:


It is argued that at the heart of this definition lies an acknowledgement that all individuals have a ‘career’, which stems from learning and work experiences within differing settings throughout their lives. Whilst other definitions exist, such as the OECD statement below, we have chosen to adopt the concept of exploring both ‘sequence and patterns’ in our review of the literature research findings.

1.9 Career development refers to lifelong psychological and behavioural processes that are influenced by ‘context’ thus shaping one’s career over the life span. As such, career development involves:

‘the person’s creation of a career pattern, decision-making style, integration of life roles, values expression, and life-role self concepts’ (Herr and Cramer, 1996).

1.10 Career development is provided in a variety of different contexts and this further extends the complexity of potential descriptors used to explain the process. Examples of these differing contexts are given below.

- **Workplace settings**: where the quality of the ‘employee and employer relationship’ is a critical factor in helping determine the extent to which career development takes place. This setting may provide opportunities and/or barriers to individual success. The role of human resource (HR) specialists, outplacement agencies, vocational training providers, managers, and peers greatly influence different types of career discussions at work (Hirsh and Jackson, 2004).

- **Formal education settings**: where the quality of provision and level of support available to the learners are critical factors in helping to determine the extent to which learning and skills development support the individuals’ career development plan.

- **Community settings**: where the quality of local information, advice and guidance services made available to individuals with a diverse range of educational, social and economic needs is a critical factor in helping to determine upward, sideways and/or downward career mobility.

1.11 In terms of workplace settings and business survival, typically, smaller firms compete on the basis of focus, differentiation and flexibility, rather than volume and diversity/coverage. Although company activities are often highly specialised, roles within the organisation generally are not. There is less infrastructure in SMEs than in larger organisations, fewer ‘support’ functions and broader individual

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responsibilities. As a consequence, smaller companies are typically very lean, and career ladders - where they exist - are short. Taken together, these characteristics represent a very different context for workforce development than that prevailing in larger organisations.

1.12 Career development interventions, defined broadly, involve any activities that empower individuals to cope effectively with career development tasks (Spokane, 1991). For example, activities that help individuals develop:

- self-awareness;
- occupational awareness;
- decision-making skills;
- acquisition of job search skills;
- adjustment to occupational and life choices; and
- ability to cope effectively with new learning situations.

1.13 Research findings indicate that career development activities are made available through a variety of formal and informal mechanisms e.g. one-to-one discussions; workshop-based activities; educational activities; web-based career development programmes; web-based career information systems, and/or telephone/e-mail helplines. Access to career development services largely depends on local policies and availability of provision both within and outside of the workplace. In some cases, career development interventions are linked to formal performance review and appraisal systems, especially within some large companies; conversely, informal reviews undertaken by peers raise individual levels of awareness of personal growth and development needs.

1.14 In recent years the policy pendulum has shifted from focusing on seeking to secure individual commitment to lifelong learning (a focus in the mid-90s) to workforce development (with a focus on employers developing their own and the country’s prosperity through developing a more highly skilled workforce).

1.15 From the late 90’s onwards, the government’s lifelong learning strategy, as developed by The National Skills Task Force (1998), has focused on finding new ways of improving workforce development. The Task Force concluded:

> At the centre of transformation lies the progression from the industrial society...to an information and knowledge-based society built upon intellectual capital...To compete effectively on the world stage, employers need access to the best educated and trained workforce...to compete effectively in a dynamic labour market, individuals must acquire the necessary skills (para 2.4).

1.16 The National Learning Targets, launched in October 1998, remain underpinning features of the government’s two overarching goals designed to achieve:

- an inclusive society, where everyone has an equal chance to achieve their potential; and

- a globally competitive economy, with successful firms and a fair and efficient labour market.
1.17 In the UK, around 35% of adults of working age lack formal qualifications at level 2. Campbell et al. (2001) found that the proportion of the workforce possessing level 2 qualifications in the UK was well below that in a number of developed countries including in France and Germany. In England, the government set a target for 85% of 19 year olds to achieve a level 2 qualification by 2004. In addition, for those individuals aged 20 and over, a 50% target was set towards achieving a level 3 qualification, 28% with a level 4 qualification and a 7% reduction in non-learners by 2002 (DfEE, 2000). Progress has been made towards achieving these challenging targets. The 2000 Labour Force Survey (Office for National Statistics, 2001) indicated just over 76% of 19 year olds had achieved a level 2 qualification by Autumn 2003, compared with slightly less than 75% in 2001 (Department for Education and Skills (DfES), 2004).

1.18 In December 2002, the Department for Education and Skills (DfES) published a revised departmental strategy ‘Delivering Results: A Strategy to 2006’. This document set out a range of objectives designed to address the strategic aim to ‘help build a competitive economy and inclusive society’. It was reported this would be achieved by:

- creating opportunities for everyone to develop their learning;
- releasing potential in people to make the most of themselves; and
- achieving excellence in standards of education and levels of skills. (pp.4)

1.19 In the UK, the concept of ‘skills development’ is viewed as central to economic success. A key objective set by government is to ‘encourage and enable adults to learn, improve their skills and enrich their lives’. Although targets were also set for increased participation in Higher Education, particular attention was given to upskilling adults without a level 2 or equivalent qualification. The targets in relation to this group are:

- to improve the basic skill levels of 1.5 million adults between the launch of Skills for Life in 2001 and 2007, with a milestone of 750,000 by 2004.

- to reduce by at least 40% the number of adults in the workforce who lack NVQ level 2 or equivalent qualifications by 2010. Working towards this, one million adults in the workforce to achieve level 2 between 2003 and 2006.

1.20 Following earlier research by the Cabinet Office’s Performance and Innovation Unit (later Strategy Unit), the Government in July 2003 launched its Skills Strategy, which aims to:

‘put business needs centre stage, raising demand for training by tackling barriers, and giving employers and employees greater choice and control over the content and delivery of training; helping businesses use skills to achieve more ambitious longer-term business success’.

1.21 In order to achieve these ambitious targets, the Government recognised the need to strengthen the links between learning and employment, including encouraging employers and trade unions to engage in the skills agenda and workforce development. Additional targets for organisations were set in order to encourage them to invest in training and staff development: 45% of medium or large
organisations and 10,000 small organisations will achieve recognition through the Investors in People (IiP) award.

1.22 However, despite such evidence, and the benefits that companies report from involvement in Investors in People, as the Skills Strategy acknowledges, many companies in the UK - in particular small and medium sized enterprises (SMEs) - do not always look to career development interventions (CDIs) as a key component of competitive advantage. A consistent finding from surveys of ‘training activity’ is that smaller firms are less likely to provide formal training, with the smallest reporting the least formal training activity (Skills Task Force, 2000). Whilst all organisations face barriers to workforce development, for many small firms the concern with ensuring short-term survival is much more acute (Westhead and Storey, 1997).

1.23 At the same time, there are a number of factors which combine to make workforce development (particularly of the formal kind) more problematic - of which cost, and the difficulty of releasing staff to plan and undertake the work are the most frequently cited (Tamkin and Hillage, 1999). Furthermore, many owner/managers have little or no management training (Johnson, 1999) themselves, and only a minority of smaller firms has any discrete internal training or a personnel function to identify, develop, initiate, and follow-up what would constitute effective human resource development (HRD) for their business.

1.24 However, as research for the National Skills Task Force and others have noted, this does not represent the whole picture because of the significant contribution made by informal learning (Westhead and Storey, 1997), coupled with a failure by some SMEs to recognise relevant activity as training at all (Abbott, 1994). Indeed, the recent CBI’s Employment Trends Survey indicates that SMEs are more likely than larger firms to rate workforce skills as a major factor in their competitiveness.

Differing stakeholders

1.25 There is an underlying assumption that government policies support career development interventions, within and outside of the workplace, given they are generally viewed as being ‘in the interest of public good’. Career development interventions are widely considered as instruments to help raise individual’s aspirations and their active participation in education and/or training. However, different stakeholders have differing interests and expectations in the outcomes from career development activities as the examples below indicate:

- **Individuals** are likely to be most concerned with having access to high quality information and career development services designed to help support them with important work and life decisions.

- **Employers** are likely to be most concerned with receiving and retaining highly motivated people within their companies, i.e. did career development activities motivate the individual(s) to extend their knowledge, skills and experience so that company benefits could be accrued?

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4 Medium and large organisations employ 50 people or more. Small organisations employ between 10 and 49 people, [http://store.apple.com/1-800-MY-APPLE/WebObjects/AppleStore/](http://store.apple.com/1-800-MY-APPLE/WebObjects/AppleStore/)

5 See Westhead and Storey (1997), Tamkin and Hillage (1999), and Johnson (1999)
• **Career development specialists** are likely to be most concerned with *formative issues*, i.e. which element(s) of the career development intervention contributed most effectively to the outcomes achieved and how can the individual and/or the organization continue to benefit most from this?

• **Policy-makers** are likely to be most concerned with *summative evaluations* and *cost-benefit outcomes* arising from their investment in career development policies and practices within and outside of the workplace, i.e. did career development interventions achieve the expected outcomes and what are the cost implications for current and future workforce development policies?

1.26 Reconciling these differing interests is hugely challenging and demanding for all stakeholders, especially those individuals and/or organisations who are expected to ‘show returns’ from their levels of investment related to specific career development activities. Figure 1, below, highlights the relationships that need to be fully considered when assessing the efficacy of career development interventions on employees’ motivation to learn. There are three complementary, yet often competing, agendas, namely:

• Individual development;
• Business development; and
• Workforce development.
1.27 Research findings suggest that many individuals often look to their employers for support in relation to career management and progression. Market research by MORI (2001) on behalf of the Guidance Council, indicated nearly half of the working population accessed information, advice and guidance (IAG) about learning and work opportunities in 2000, and of them a third indicated they had accessed help (in varying forms) through their employer. Those findings are also reflected in the latest report from MORI for the Guidance Council which will be published shortly.

1.28 Humphries (2002) suggests that adult guidance providers, working closely with employers, have a crucial role to play in supporting adults at pre-level 2 to participate more fully in productive work-related learning. However, this has significant implications for the development of career services in the UK, and offers real challenges to policy-makers, managers and practitioners to find innovative ways of inspiring and motivating individuals and employers to invest in learning and personal development.

1.29 The emergence of a knowledge economy has also led to a shift in the balance of occupations away from unskilled manual jobs (Humphries, 2002). Whilst the concept of a ‘knowledge economy’ is often contested territory (see, inter alia, Hughes, 2005; Brown and Keep, 2004, and Taylor, 2004), it is widely accepted that individuals’ roles within the workplace are fast changing, and the role of intermediaries in helping to broker new learning and career development opportunities remains largely under-developed.
1.30 Also, the content and purpose of interventions, and the likely effects on individuals within or outside of the workforce, requires greater clarity and specificity to help develop:

(i) common terminology that can be used by a range of key stakeholders;
(ii) the credibility of career development programmes; and
(iii) the reputation of those responsible for management and delivery of careers provision.

1.31 Assessing career interventions that support workforce development is complex largely due to the ‘patchy’ and ‘inconsistent’ nature of businesses and provision in geographical and sectoral areas. Bysshe et al. (2004) reported that “there are 3.7 million enterprises in the UK. According to recent research by the Confederation of British Industry (CBI), SMEs (firms with less than 250 employees) currently account for over 99 per cent of enterprises, provide over 55 per cent of employment and just under half of all financial turnover. In turn, up to 2.6 million of them are owned by sole traders, who constitute some 13.5 per cent of the national workforce and 7.4 per cent of national turnover” (p.4).

1.32 Research findings from Hughes et al. (2002) demonstrate there are many examples of interesting practice and a plethora of initiatives to support workforce development. However, “few of these initiatives…..have had a significant impact on the development of the workforce in small and medium-sized enterprises” (p.3). Given the increasing importance of SMEs to the economy, they argue this balance needs to be redressed. Their findings suggest the way learning is perceived within SMEs clearly affects views on the ‘learning potential’ for individuals within everyday activities.

1.33 The way learning is perceived, and the extent to which learning outcomes enhance workforce development, is also contested territory. Unwin (2004) highlights the complexity of untangling formal and informal learning within the workplace. She argues that where individuals have been encouraged and supported in their work-related learning, they are more likely to have the confidence to engage in learning outside the workplace.

1.34 Figure 2 overleaf summaries the various degrees of formality in the planning and delivery of career development interventions and the contrasting in-house and external provision that can potentially impact on individuals’ lives.

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6 The Bank of England report for 2nd and 3rd quarter 2003 has indicated considerable growth in business start-ups.

### Figure 2

<table>
<thead>
<tr>
<th>Formality of CDI’s</th>
<th>In-house provision</th>
<th>External provision</th>
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<tbody>
<tr>
<td><strong>Formal</strong></td>
<td></td>
<td></td>
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<tr>
<td>Career development activities as part of formalised Human Resource Development (HRD) strategy</td>
<td>Advice/guidance on learning and career development delivered by trained (e.g. HRD) staff as part of performance review appraisal</td>
<td>Access to information/advice/guidance (IAG) on learning and career development delivered by external staff (e.g. career specialists as part of a formal review process. This could be initiated by the individual and/or the employer).</td>
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<td></td>
<td>Less likely to find in SMEs</td>
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<tr>
<td><strong>Semi-Formal</strong></td>
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<tr>
<td>Career development activities as part of semi-formal arrangements whereby individuals have access to ‘independent broker(s)’ and/or ‘agent(s) for change within the company.</td>
<td>Advice/guidance on learning and career development delivered by line manager/HR staff (e.g. as part of performance review appraisal), or by trained Trade Union Learning Representatives or Learner Champions.</td>
<td>Advice/guidance about learning and career development delivered by external IAG specialists (e.g. Careers Adviser, Employer Training Pilot, FE/Learning/learndirect provider as part of supporting in-company learning).</td>
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<td></td>
<td>Likely to find examples within both SMEs and large companies</td>
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<td><strong>Informal</strong></td>
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<tr>
<td>Information/advice based approaches within developing HRD/workforce development strategy</td>
<td>Information and signposting on learning/career opportunities provided on an informal basis within company as part of wider strategy to engage employees in learning/career development activities</td>
<td>Employees have access to IAG services as individuals rather than as part of a company strategy. They may also draw upon the experiences and recommendations of their family, peers and friendship groups.</td>
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<tr>
<td></td>
<td>Likely to find examples within both SMEs and large companies</td>
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</tbody>
</table>

Source: Adaptation of CeGS model designed by Bosley, Bysshe & Gration - January 2004
1.35 As a result, the motivation to utilise differing forms of career development interventions will inevitably vary from individual to individual, depending on their unique set of circumstances.
Chapter Two: The Research Design Process

2.1 In this chapter, we consider the research design detailing the key stages within the review process. We highlight the process of undertaking a systematic literature review, drawing on best practice derived from the EPPI Centre, Institute of Education, University of London. We have also incorporated lessons learned from previous literature reviews undertaken by the Centre for Guidance Studies (CeGS), University of Derby and the Institute for Employment Research, Warwick University. From this a wide range of literature was identified using set criteria for an in-depth review.

Process

Stage One - Searching

2.2 The first stage of the review involved the identification of papers, research reports and policy documents that were broadly concerned with career development interventions and learning for work. Potentially relevant papers were identified through electronic databases, websites and personal contacts. The research team, in conjunction with the Critical Reader, identified appropriate electronic databases and websites. Two teams of researchers based at the Universities of Derby and Warwick undertook the searches as outlined in Table 1 below:

<table>
<thead>
<tr>
<th>Electronic database</th>
<th>Searched by</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABI/Inform</td>
<td>Warwick</td>
</tr>
<tr>
<td>Blackwell Synergy</td>
<td>Warwick</td>
</tr>
<tr>
<td>Business Source Premier</td>
<td>Warwick</td>
</tr>
<tr>
<td>EBSCO</td>
<td>Warwick</td>
</tr>
<tr>
<td>Emerald Text</td>
<td>Warwick</td>
</tr>
<tr>
<td>ERIC / British Educational Index (BEI)**</td>
<td>Derby</td>
</tr>
<tr>
<td>Ingenta Connect**</td>
<td>Derby</td>
</tr>
<tr>
<td>JSTOR*</td>
<td>Warwick</td>
</tr>
<tr>
<td>Kluwer</td>
<td>Derby</td>
</tr>
<tr>
<td>PsycInfo</td>
<td>Derby</td>
</tr>
<tr>
<td>Sage Journals on-line</td>
<td>Warwick</td>
</tr>
<tr>
<td>ScienceDirect</td>
<td>Warwick</td>
</tr>
<tr>
<td>SOSIG</td>
<td>Derby</td>
</tr>
<tr>
<td>Wiley Interscience*</td>
<td>Warwick</td>
</tr>
<tr>
<td>Zetoc</td>
<td>Derby</td>
</tr>
</tbody>
</table>

* Searches were not undertaken in these two databases given technical difficulties in exporting references into the Reference Manager software programme (see para3.8).

** Limited searches were undertaken on these databases due to technical difficulties both searching the databases and importing the references into the Reference Manager software programme (see para3.8).
2.3 Appendix 3 provides additional information on the electronic databases used and the contents illustrate clearly why some searches yielded greater results than others. It also provides a practical guide to other researchers and policy-makers seeking to use electronic databases for literature searches. In addition, other internet websites were surveyed to search for relevant data as detailed in Table 2 below.

Table 2: Websites searched

<table>
<thead>
<tr>
<th>Website</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadian Career Development Foundation</td>
</tr>
<tr>
<td>Careers Research and Advisory Centre (CRAC)</td>
</tr>
<tr>
<td>Centre for Guidance Studies (CeGS)</td>
</tr>
<tr>
<td>Centre for Labour Market Studies</td>
</tr>
<tr>
<td>Chartered Institute of Personnel Development (CIPD)</td>
</tr>
<tr>
<td>Department for Education and Skills:</td>
</tr>
<tr>
<td>Department for Trade and Industry</td>
</tr>
<tr>
<td>ESRC Teaching and Learning Research Programme (TLRP)</td>
</tr>
<tr>
<td>Guidance Council</td>
</tr>
<tr>
<td>INFED</td>
</tr>
<tr>
<td>Institute for Employment Research (IER)</td>
</tr>
<tr>
<td>Institute of Career Guidance</td>
</tr>
<tr>
<td>Investors in People</td>
</tr>
<tr>
<td>Learning and Skills Development Agency (LSDA)</td>
</tr>
<tr>
<td>National Association for Educational Guidance for Adults (NAEGA)</td>
</tr>
<tr>
<td>National Centre for Guidance in Education</td>
</tr>
<tr>
<td>National Centre for Vocational Education Research (NCVER)</td>
</tr>
<tr>
<td>National Learning and Skills Council (LSC)</td>
</tr>
<tr>
<td>National Foundation for Educational Research (NFER)</td>
</tr>
<tr>
<td>National Institute for Adult Continuing Education (NIACE)</td>
</tr>
<tr>
<td>Organisation for Economic Co-operation and Development (OECD)</td>
</tr>
<tr>
<td>Trade Union Learning Services</td>
</tr>
</tbody>
</table>

2.4 In order to ensure that the searches undertaken by the two research teams were consistent and comparable, a search strategy was developed. This comprised key search terms derived from the research question and located within category headings. The teams combined the search terms under three main category headings, some example are as follows:

- keyword 1 AND keyword 2 AND keyword 3
- keyword 1 AND keyword 2 AND keyword 2 AND keyword 3
- keyword 1 AND keyword 2 AND keyword 3 AND keyword 3
- keyword 2 AND keyword 3
2.5 From this ‘search strings’ emerged to enable the research team to concentrate their efforts on locating relevant literature linked specifically to the review question. The research teams kept a log of search strings used and the results yielded from this process. In the event that the search terms yielded more than 500 references, additional terms were added to the string in order to more accurately focus the search. The search logs were compared to ensure that the terms had been applied consistently. In the event that one team but not the other had applied an effective search string, appropriate action was taken to address any gaps and/or inconsistencies. However, it should be noted that the same search string often yielded different results when applied in different databases. Some examples of successful search strings in the different electronic databases are listed in Appendix 4.

2.6 There is a plethora of material in the fields of career development, workforce development and adult learning. Our initial searches yielded 77,272 initial references. To help reduce the number of potential papers a significant proportion were screened online in order to determine their suitability for inclusion in the systematic literature review. During online screening, the titles, and in some instances the abstracts, were read to determine:

- references that were conducted before 1990;
- not written in English; and
- those concerned with ‘economically inactive’ individuals.

These references were excluded during this stage of the process.

2.7 It should be noted that some electronic databases and websites had a facility to specify date of publication in the search terms. In these cases, it was possible to eliminate articles published prior to 1990 from the outset. Online screening was a beneficial element of the process as this enabled the researchers to recognise when a database had been comprehensively searched and duplications could also be identified.

**Stage Two - Screening**

2.8 The results of each search of less than 500 references were assessed on screen in order to ascertain whether the documents were likely to meet pre-determined inclusion and exclusion criteria. The inclusion and exclusion criteria devised by the research team were as follows:

**Studies included** were:

- written in English;
- focused on career development interventions at level 2 or below, delivered either within or external to the workplace for employees;
- conducted after 1990.
Studies excluded were:

- were not written in English;
- were conducted before 1990;
- focused solely on career development interventions at level 3 and above;
- concerned with unemployed and economically inactive\(^8\) individuals;
- only concerned with internal and/or external factors without reference to career development interventions;
- were not concerned with learning for/at work but are only with psychology, motivation or career theory;
- were based on single person opinion.

2.9 The bibliographic information for those that met the inclusion criterion was entered into a database for screening by ‘title’ and ‘abstract’. Reference Manager\(^9\) was used to capture bibliographic information. A number of electronic databases had the facility to export bibliographic information directly from the database into Reference Manager. Where this facility was not available, the information was downloaded in a text file and imported using an appropriate filter into Reference Manager. The bibliographic information for relevant articles identified from websites and personal contacts were entered into the master database. In addition, library specialists at the National Library Resource for Guidance (NLRG) and National Institute for Adult Continuing Education (NIACE) undertook searches on behalf of the research team.

2.10 The databases created independently by the research teams at the Universities of Derby and Warwick were merged to create a single master file containing 2,200 references. The master file was sorted by ‘author’ in order to identify duplicate references. The duplicates were removed leaving a database containing 1,903 references. During a further screening process, a number of additional duplicates were identified. The removal of duplicate references reduced the number of potential studies for inclusion in the in-depth review to 1,808.

2.11 At this stage all references that met one or more of the exclusion criteria were exported into one of a set of six databases that corresponded to exclusion criteria 2-7 listed above. The exclusion criteria were applied hierarchically and articles were excluded on the basis of the first criteria met.

2.12 References that met all of the ‘inclusion and exclusion’ criteria were exported into a new database. The number of references totalled 277. In order to ensure the review was sufficiently focused, two additional exclusion criteria were developed as follows:

- studies that do not take account of factors which may influence learning at/for work; and

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\(^8\) The Office for National Statistics classifies individuals who are either not looking or not available for work as being economically inactive. For the purpose of this study, this definition was broadened to include anyone who is not currently in employment.

\(^9\) Reference Manager is a bibliographic management system which facilitates: searches of, and data capture from, online bibliographic databases; storage and retrieval of bibliographic references; and bibliography creation.
• studies that focus solely on the benefits of workforce development for employers and the motivations for encouraging employees to engage in learning at/for work.

2.13 These criteria, which were derived from concepts inherent in both the principal review question and the sub-question. Figure 3 overleaf provides a descriptive map designed to summarise the searching and screening process.
Figure 3

Flow of literature through searching and screening process

1. Identification of potential studies

2. Application of inclusion & exclusion criteria

3. Application of additional inclusion & exclusion criteria

4. In-depth review

Initial Search
N = 77,272

On-line Screening
N = 2202

Abstracts and Titles Screened
in Reference Manager
N = 1754

Studies for potential Inclusion
N = 277

Abstracts and Titles Screened
in Reference Manager
N = 277

Additional Studies Provided by Personal Contacts
N = 57

Full document screened
N = 116

Studies included in the In-Depth Review
N = 27

Total Number of Studies Excluded
N = 2262

Criterion 2: N = 96
Criterion 3: N = 184
Criterion 4: N = 145
Criterion 5: N = 662
Criterion 6: N = 251
Criterion 7: N = 44
Criterion 8: N = 64
Criterion 9: N = 49
Irrelevant: N = 232
Duplicates: N = 448
Insufficient Info: N = 61
Unable to obtain N=26
Stage Three: Data Extraction

2.14 An instrument devised by the research team was used to provide a framework for extracting, assessing and analysing data contained within the included studies (see Appendix 6). The data extraction instrument included:

- bibliographic information;
- focus of the study;
- methodology;
- findings; and
- analysis.

2.15 The primary purpose of the ‘analysis’ section was to identify the available evidence in support of the review question. This included a review of evidence to investigate whether or not career development interventions impact on:

- motivation for learning for work;
- factors that facilitate learning for work;
- eliminate barriers to learning for work; and
- the outcomes arising from workforce development.

In addition, the quality of the studies and the evidence produced was assessed by an analysis of the strengths and limitations of studies. The EPPI-Centre, Institute of Education, identified the following three components to help assess the quality of studies in terms of ‘weight of evidence’:

(i) the soundness of studies (internal methodological coherence), based upon the study only;

(ii) the appropriateness of the research design and analysis used for answering the review question; and

(iii) the relevance of the study topic focus (from the sample, measures, scenario, or other indicator of the focus of the study) to the review question.

By judging the studies in this way, an overall ‘weight of evidence’ can be determined.

Stage Four: Synthesis

2.16 The findings were synthesised according to key themes relating to the review question. These were as follows:

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10 A series of structured questions within each section were designed to ensure that the review teams extracted the data consistently.
Career Development Interventions (CDIs)

These included:

- *Formal interventions* such as employee development schemes, in-house vocational and non-vocational programmes of learning, and/or career and personal development planning activities.
- *Informal/formal interventions* such as learner activities supported by learner champions, trade union learner representatives, agents for change, mentors and brokers operating within and outside of the workplace.

External Factors

These included:

- organisational size and structure including hierarchies and management at both a ‘macro’ and ‘micro’ level;
- available network support i.e. co-worker and/or peer support mechanisms including friends and/or family;
- the learning environment;
- timing and delivery constraints;
- funding and resources; and
- mode of employment.

Internal Factors:

These included:

- learner motivation and confidence;
- experience of learning;
- level of education; and
- age, gender, ethnicity and class.
Chapter Three: Strengths and Limitations of the Systematic Literature Review Process

3.1 In this chapter, we consider the strengths and limitations of the study so that key lessons can be identified that will not only benefit the review team, but also other researchers. Whilst this review represents an in-depth detailed study of literature which used a thoroughly systematic approach, it needs to be acknowledged that it is very time consuming and resource intensive.

Strengths

3.2 The systematic review process enabled the review group to undertake a comprehensive, objective assessment of the available research to provide a sound evidence base for policy-makers, managers, practitioners and researchers.

3.3 The literature review process was adapted from a methodology developed by the EPPI-Centre, Institute of Education, University of London. A key feature in relation to selecting and screening studies was careful monitoring and recording to ensure actions taken were transparent and consistent across the review team. In total, 27 studies were selected from an original 77,272, identified which may appear to some as a weakness of the process. However, this is the result of progressive focusing that is central to systematic approaches and ensures that the studies selected and included in the in-depth review accurately address the research question and sub-question.

3.4 Online screening of materials by the research team was a beneficial part of the process. It enabled the team to become very familiar with the materials, which not only helped to identify when a database had been exhausted, but also helped the identification of additional exclusion criteria.

3.5 The process has identified both potential gaps in the existing research and potential areas for future reviews. For example, mentoring and coaching are often considered good examples of career development interventions in the workplace motivating and influencing employees to learn for/at work. However, much of the literature reviewed describes the process rather than focusing on outcomes. Further empirical research is required in this area, the findings from which could usefully be synthesised in an in-depth review in order to inform future policy and practice.

Limitations

3.6 The review group is aware that there may be studies, which have not been identified. There is a possibility that unpublished reports and Doctoral theses may provide relevant research evidence, but these can be difficult to track down and costs of doing so may be prohibitive. It should also be noted that studies that are not written in English may also provide insight into the impact of career
development interventions, for example, studies concerned with ‘bilan de competence’\textsuperscript{11}.

3.7 Although every endeavour was made to obtain all materials considered relevant to the research question and sub-question, some texts had to be excluded simply because of availability. For instance, some reports written in the early 1990s identified in the web searches were not available electronically and could not be obtained in time for data-extraction. Future reviews would need to consider undertaking this, where possible, at an earlier stage in the process. For instance, materials identified in web searches could be obtained during the searching process to ensure they are available for screening. This implies changing the review process so that each step is not discrete.

3.8 The review was, to some extent, limited by technical difficulties experienced in the early stage of the research process. Although the review group had access to, and expertise in, two bibliographic programmes (Reference Manager and Endnote), some electronic databases did not have accurate export functions to either of the programmes. The transparency of the process would have been improved by the provision of importation filters that would have eliminated the need for online screening. Thus, the review group would have been able to account for all studies that were excluded by title and abstract. Some databases did not have export functions to bibliographic software, which meant the screening was a very time-consuming process.

3.9 In addition, the instability of two of the web-based databases severely inhibited the search process. However, the research team do not feel that the overall approach was compromised, as additional searches in the latter stages of this phase were simply identifying duplicate references. The research team felt confident that ‘saturation point’ had been reached and that few, if any, new references of any relevance would have been identified had the team persevered with the searches.

3.10 The terminology used by some authors can be misleading. For example, the unqualified use of the term ‘significant’ implies statistical significance. Therefore, caution is needed when interpreting the results of studies where authors are not explicit about the analysis of data. A further example is the use of the terms ‘knowledge and skills’. In some cases, authors use these terms to describe particular pre-defined knowledge and skills that are subject to measurement in the studies. However, there are also cases where these terms are used generally with no qualification. Such instances lead to vague conclusions, which can potentially mislead the reader.

\textsuperscript{11} ‘Bilan de competence’ is ‘a system for the validation of professional competences acquired outside formal education. …\[It aims\] to permit the employee to understand his or her professional and personal competences as well their motivation and aptitudes in order to facilitate their professional as well as their educational plans and careers. …The bilan de competence is focused on the labour market and on enterprises.’ Bjørnåvold, J. (2000). Making Learning Visible: Identification, Assessment and Recognition of non-formal learning in Europe. Cedefop Reference series. Catalogue no.:TI-32-00-871-EN-C. Available online at: \url{http://www.ilo.org/public/english/employment/skills/recomm/publ/008.html#3.5.1.1} See also Bjørnåvold, J. and Brown, A. (2002) Rethinking the role of the assessment of non-formal learning, in P. Kämmäräinen, G. Attwell, and A. Brown (eds.) Transformation of learning in education and training: key qualifications revisited, Cedefop Reference series 37, Luxembourg: Office for Official Publications of the European Communities.
Defining ‘career development intervention’ is problematic. This review used what some may consider to be a narrow definition. Consequently, material was excluded that others working in the field may believe should have been included. Career development intervention, as defined in this review, focused on information, advice and guidance in the workplace (including inventions such as mentoring and employee development schemes) rather than broader policy programmes designed principally to increase productivity. For instance, national changes in vocational training programmes were excluded from the review, as they did not focus on individual motivations for learning, but on governmental influences on learning.

In addition, many of the studies reviewed focused on the career development interventions and their impact on organisational productivity, efficiency and competitiveness. These focused on the benefits of workforce development for employers and the motivations encouraging employees to engage in learning at/for work are neglected or are implicit. Although some may argue that this may motivate some employees to learn at/for work, it was agreed in the research team that the focus of the study was on ‘employee benefits’ and not ‘employer benefits’.

Also, the focus on level 2 or below meant that many studies that may have had some general relevance to the broad issues under investigation (e.g. in examining relationships between learning and contextual factors) were excluded.

The conclusions that can be drawn from the review are limited due, at least in part, to:

- the problems associated with defining ‘career development interventions’ within and outside the workplace;
- the nature of the research available on employee development schemes;
- the nature of research assessing the outcomes of these schemes and mentoring processes to inform and support individuals; and
- the lack of differentiation in the research literature between employee and employer benefits.

It was also noted that there is a distinct lack of research that is longitudinal in nature; the majority of studies are a ‘snapshot in time’ which may explain why there is limited data on the influences of career development interventions on individual learning.

A common disadvantage to conducting systematic reviews is that, when changes in policy and practice do occur, it takes time for primary studies to be commissioned and completed, which in turn impacts on how quickly the results of any changes in policy or delivery can be incorporated into systematic reviews. However, the most significant problems of a systematic literature review are that it downplays the role of researcher judgement and does not build on other reviews that are useful even if they have not used such exclusive criteria. Drawing on our experiences, the ‘systematic approach’ should be an intention underpinned by research ethics and standards rather than a specific ‘regimented approach’. Common sense decisions...
should be applied so that good and interesting research findings can be included even though they may be on the periphery of inclusion criteria.

Remote team working

3.17 Undertaking the review at two separate research centres, and involving a total of five researchers, has required close communication and regular review. In order to ensure consistency between the research teams, regular face-to-face meetings and teleconferences have been held, and there has been extensive e-mail contact. One specific example was the development of the additional exclusion criteria referred to above, which came about through each team separately identifying the need for further criteria and then working together to agree them. The experience has demonstrated that in order to adhere to the systematic review process it is vital that all the researchers involved in the project have a shared understanding of the research question, the methodology and the detailed approach to be taken at each stage. The level of close contact between the two teams has been critical to the success of the review.
Chapter Four: The Evidence

4.1 In this chapter, we review the body of evidence emerging from the research findings. We begin by reflecting on the effects of the exclusion criteria on the research findings. This is followed by an overview of the issues set within policy and organisational contexts in which career development interventions take place. Finally, an examination of differing career development interventions is explored using at least four main categories derived from the research findings namely:

- formal training/development, within and outside the workplace;
- informal training/development, within and outside the workplace;
- human resource led initiatives; and
- involvement of intermediaries.

Effects of the applied criteria

4.2 It should be noted that certain literature were excluded from the review based on the exclusion criteria. The rationale for the exclusion criteria was to ensure a focused review answering the question, reviewing what was believed to be a gap in the literature whilst ensuring it was linked to policy.

4.3 Learning within and outside of the workplace implies individual learning in the workplace, within educational settings and within the community. Whilst, there was some literature on all three settings, much of the evidence concerning learning in the community found in this review was based in the United States, and focused solely on meeting government agendas, addressing policy or focused on economically inactive individuals. As this review was concerned with career development interventions for individuals in employment, these studies concerning economically inactive individuals were excluded from the review.

4.4 It was also found that much of the evidence concerned with learning at and for work related to the benefits of workforce development for employers. These studies were excluded because they did not relate to individual employees and motivations. Some evidence was also excluded as focused on employers’ motivations for encouraging employees to engage in learning for work and did not focus on individual employee motivations.

4.5 Many of the research studies found as part of the review process, but excluded, did not take into account factors which may influence or motivate individual learning at and for work. For instance, research on different employee development schemes and training courses related to the development, implementation and process of the schemes. Because of this, they were excluded. These studies not only failed to consider individual benefits and motivations for participating in the schemes, but also did not consider what internal and external factors may have influenced the outcomes of the workforce development schemes.
4.6 Finally, there was a wealth of research on mentoring and coaching which had to be excluded from the review for several reasons. The majority of initiatives were not concerned with individuals at level 2 or below. Second, studies evidenced the process of these career development interventions rather than the outcomes and how they may have motivated individuals to engage in learning for and at work. Third, much of this evidence also focused on the benefits of these interventions for organisations, so were also excluded.

Policy context

4.7 Research carried out by Thursfield and Holden (2004) briefly explored the policy of workforce development. They draw on evidence from NIACE (1997), Matlay (1999) and Gibb (2002) which highlight:

“significant inequalities in access to learning and development at work” (Thursfield and Holden, 2004, p292).

Building on this, the authors argue that government initiatives designed to remedy the problem of low skilled workers, are underpinned by an essentially ‘voluntarist approach’ and have tended to focus mainly on ‘supply-side’ policies.

- Unwin (2004) agrees with the above-mentioned assertion. In addition, she provides an overview of a number of important developments central to the enhancement of individuals’ learning within and outside of the workplace. These include: (i) collaboration between local Learning and Skills Councils (LLSCs) and Regional Development Agencies (RDAs) to bring employers and education and training providers closer together; (ii) the expansion of Employer Training Pilots which provide funding to subsidise the cost of sending employees on training courses; (iii) an increase from £11m to £14m a year for the Union Learning Fund (representatives to take ‘paid time off’ from work to open up learning opportunities for employees); (iv) the identification of 20 leading employers to act as Employer Champions to promote adult basic skills training in the workplace; (v) development of a ‘no wrong door’ policy to make sure businesses get the advice they need for improving performance; (vi) the expansion and improvement of Modern Apprenticeships; (vii) the development of a coherent work-based pathway which will begin at 14 years old; and (viii) the establishment of Centres of Vocational Excellence for the provision of education and training in colleges and other providers.

- Ford (2005) affirms that the increase in adults 50+ in the UK, and much of the developed world, is providing challenges to policy-makers for which there are no known precedents. Arguing that current policy is essentially ‘piecemeal’ and reactive in nature, Ford points to the need for a national strategy to encourage new forms of career development interventions specifically aimed at older adults that would include specific career development interventions.

4.8 The recently published Skills White Paper (2005) identifies ways of tackling obstacles that impede individuals' access to high quality training and jobs. Here, emphasis is placed on the need for better tailoring of information and guidance to help individuals work out the best skills, training and job options for themselves. The potential role of UfI Learndirect in supporting individuals with their transitions
through learning and work is highlighted, with further plans to extend its existing role. These policy plans indicate a ‘step change’ in using this infrastructure to reach out to more individuals within and outside of the workplace, as well introducing the concept of a combination of free and charged services. Within the Government’s skills policy framework, the principle of creating a market in career is now a serious proposition. Watts et al. (2005) outline three possible models for Government as follows:

- stimulating the market in order to build and strengthen its capacity;
- regulating the market and assuring the quality of services, both to protect the public interest and to build consumer confidence; and
- compensating for market failure where this is appropriate.

Government has a vital role to play in all three respects. Current policy is to distinguish those who should have access to free services in terms of qualification levels. Whilst this creates opportunities for individuals at level 2 and 3 or below, it restricts access to free services for others such as new graduates within the labour market.

**Organisational contexts**

4.9 Research findings (see, inter alia, Unwin, 2004; Barber, 2004; and Rayman et al. (1990), strongly suggest that ‘context’ is a key determinant of individual motivation to engage in learning.

- Unwin (2004) suggests that workplace learning needs to be understood as “an embedded process which depends on, but can also shape and change, the culture and behaviour of an organisation” (p3). She argues that cultural differences determine the character of learning opportunities on offer in an organisation; hence some organisations provide an ‘expansive learning environment’, whereas others provide more ‘restrictive learning environments’. Drawing on her research, the ‘expansive-restrictive model’ could be used further to analyse workplace learning characteristics of individual organisations in order to show how career development interventions are shaped and delivered within contrasting organisations.

- Barber (2004) discusses cultural and ethnic considerations related to informal training amongst Indian mechanics, where a ‘repetitive learning model’ dominates, despite the prevalence of a ‘reflective practice model’ among informally trained mechanics Europe. This ethno-centric approach to learning demonstrates the stark differences in learning styles that need to be accommodated in relation to motivating individuals to engage in learning both within and outside of the workplace.

- In their in-depth evaluation of a workplace initiative in Massachusetts, USA, Rayman et al. (1990) found organisational factors, plus gender and ethnicity all influence learning in the workplace and the outcomes.

4.10 Clearly, differing individuals and groups populate learning and work organisations, therefore, key research findings show that gender, age, and ethnicity within
organisations are important factors when designing new career development interventions.

- Howell et al. (2002) focus on gender and women’s experience at work and provide a critical feminist perspective on human resource development. They explore women’s workplace learning through human resource development initiatives. Two overarching themes are considered: firstly, women and organisational change and secondly, disappearing boundaries among work, family, and community. From this, the research findings point out serious flaws in many assumptions underlying mainstream training and development programmes about why and how women work in the office or on the shop floor. For adult educators, questions of who defines “productive work,” as well as how that work is rewarded, become central to understanding workplace learning and in helping to shape the production of knowledge.

- Warr and Birdi (1998) examined employee age and voluntary development activities in order to learn about employees’ views and reactions to previous learning experiences and their preferences for possible future activity. They concluded that participation in learning appears to give rise to increased motivation. However, other factors also impact on older employees’ motivation for learning. In respect of career planning, they argue that the personal importance of career-related activities decreases with age.

- Ford (2005) highlights that older people welcome high quality guidance. The types of provision identified as being particularly helpful are highly-personalised and people-focused initiatives that combine a range of guidance activities in an integrated service.

Formal training/development, within and outside the workplace

4.11 This category refers to research findings which mainly relate to ‘explicit’ forms of career development interventions designed to motivate adults at level 2 or below, to participate and engage in learning opportunities. These may include programmes and schemes, individual and/or group activities.

4.12 Various types of ‘potential learners’ are highlighted by Firth and Goffey (1997), and Birdi et al. (1997) explain reasons for adults’ participation in different kinds of development activities within and outside of the workplace.

- Firth and Goffey (1997) explored the role of Employee Development Schemes (EDS) in increasing adults’ motivation to learn. They identified three groups at the start of their EDS experience as follows: (i) new learners (the novice); (ii) wavering learners (the reticent); and (iii) committed learners (the convinced). In addition, they acknowledge a fourth group i.e. non-learners (learning rejectors). The amount of money available for respondents to spend on themselves and/or learning differed and whilst finance “did not influence perceptions of learning *per se*, it did affect involvement” (p12). This highlights the different types of learning styles present with the workforce and factors that motivate engagement in learning.
• Berry-Lound et al. (2001) examined Employment Development Schemes (EDS) in a range of private and public sector organisations in order to map take-up, identify gaps, and explore the benefits to both organisations and employees. Pump-prime funding provided the impetus for the setting up of EDS, and the provision of guidance on learning opportunities was found to be an important feature of effective EDS. Increased levels of confidence, morale, motivation and skill levels were reported by employees involved in the scheme.

• Birdi et al. (1997) examined the reasons for participation in, and benefits of, four different types of employee development activities. The authors found that the variables significantly associated with participation in all categories of activity, included; education, job grade, learning motivation, learning confidence, co-worker support, and non-work support.

• Cheng et al. (2001) examined the extent to which job and career attitudes motivate individuals to learn in Hong Kong. They tested out four main hypothesis and concluded that individuals with a strong career commitment are more likely to career plan. In their conclusion, they strongly suggest that organisations need to establish employee development schemes (EDS) to provide a visible future promotion ladder within the organisations in order to enhance the learning habits of employees.

• Antonacopoulou (2000) reviewed the motives, expectations and assumptions underpinning employee self-development initiatives in three retail banks. The focus was upon both the perspective of the organisation and the impact such initiatives have on individual employees in terms of their willingness to take responsibility for their development. Such self-development initiatives highlight the difficulty of balancing the competing priorities of the organisation with those of the individual, and highlight the need for sufficient attention to be paid to such issues at the early design stage.

4.13 A contrasting focus on ‘training providers’ illustrates their tendency to operate within formal systems and processes. However, career development interventions within the workplace are often process-driven and neglect the main outcomes from the learning process. For example,

• Smith (2000) indicates that apprentice learning in the workplace is often unstructured and unsupported and ‘at odds’ with apprentice learning preferences. One interesting example of how formal apprenticeship programmes can have unexpected consequences can be seen from the work of Fuller and Unwin (2004) who pointed out that in practice apprentices quite often 'teach' other workers (for example, in how to use IT effectively).

• Walsh et al. (1997) present a model for implementing workplace literacy education that focuses on giving front-line workers or first-line workers basic skills instruction and as appreciation for lifelong learning. In this context, career development interventions such as involving workers in decision-making activities are viewed as a successful contributor to both learner and programme development.
4.14 The issue of accreditation linked to National Vocational Qualifications (NVQs) and Scottish Vocational Qualifications (SVQs) is featured in at least two of the research studies.

- Pate et al. (2003) analysed the implications of SVQs for personal development and their implications for job performance, career development and employability. Their small-scale study highlighted that the success of SVQs was in part attributed to the level of interest shown by managers. Participants viewed vocational education in a positive light and they perceived this as contributing to their own personal development and employability.

- Thornhill (2001) concentrates on younger workers and the reasons for their failure to complete NVQ units or full awards for which they had been registered. The findings concluded that younger workers regard the work-based nature of NVQs as beneficial since many expressed a preference not to be in a ‘taught’ environment, preferring instead an ‘experiential’ learning process. This has implications for the design and development of career development interventions and how these may be delivered within and outside of the workplace.

4.15 Some research studies focus on job performance, appraisal and review processes within the context of enhancing workforce development. For example,

- Hughes et al. (2002) focused on training and development activities for the existing adult workforce, which relate to improvement of performance within current and future job roles. They indicate that the term ‘workforce development’ is often “used as a catch-all to describe work-specific training conducted by and for employers, and the general or specific development of individuals in the workforce” (p43). They argue that the ‘workforce development’ term therefore needs to be explored to find out what type of learning is being undertaken and to differentiate between that which is of benefit to employers and employees, and that which is beneficial to individuals only.

- van Zolingen et al. (2000) in their study of Post Offices in the Netherlands, investigate critical success factors related to implementing on-the-job training. They highlight concepts such as the ‘learning organisation’, ‘lifelong learning’, and ‘organisational learning’. They explain that these concepts are “based on the idea that organisations cannot build on the individual learning of their employees, but that this learning needs to be shared and acted upon in such a way that the organisation performs outstandingly in an increasingly competitive environment.”

- Rayman et al. (1990) evaluated a Massachusetts workplace initiative focusing on outcomes derived from participation in workplace education programmes. The results indicated increased self-confidence including improved relations with co-workers and job performance. At least 78% of supervisors recognised a change in the workers as a result of participation in the programme, including speaking more English, understanding assignments better, improved problem-solving and more positive attitudes towards work.
4.16 The inter-play between workforce development, lifelong learning and learning organisations appears to be often primarily focused on the benefits to the employer and/or business needs rather than individual’s requirements. As a result, it could be argued that career development interventions must serve a dual purpose. The critical issue relates to whose interest is being best served – the employer or the individual?

**Informal training/development, within and outside the workplace**

4.17 This category highlights research on more informal mechanisms designed to enhance motivation and learner involvement in training/development activities. From this, policy makers need to consider to what extent informal mechanisms can be more widely recognised in order to increase individuals’ participation in learning opportunities at level 2 and above. Also, managers/deliverers may need to reflect more fully on how these factors can help influence learner success.

- Sheehan (2004) carried out a study of learning within a group setting. The findings highlight four important factors that impinge on the learning process for participants: (i) the novelty of the learning environment whereby a more informal approach was adopted; (ii) the value of flexibility in the approach used to impart information and gain practice in learning within a group facilitated process; (iii) the value of openness from managers on their selection of individuals to participate in learning; and (iv) the value of differences between participants making a positive contribution to group learning.

4.18 Although, Stead (1997) focused on mentoring within a work-based learning environment in order to assess its effectiveness, the author found that mentoring was not essential for all learners with many finding alternative, informal forms of support within the workplace. Colley (2003) also adopts a similar position on this issue.

4.19 Some research studies, which explore the development of non-vocational driven activities, demonstrate that this can be a suitable alternative to offering vocational programmes linked to learner development. For example,

- Holden (1996) evaluated a non-vocational development pilot initiative, within a major water company, to determine whether this encouraged wider participation in learning. There was evidence that over half of the participants had taken up a learning activity as something that they would not otherwise have done, and thus the broader benefits of learning were recognised through increased levels of confidence.

**Human resource led initiatives**

4.20 In terms of reviewing the evidence, it is clear that different types of human resource interventions influence people’s motivation to engage in learning within and outside the workplace.
• Pate et al. (2003) in their study of SVQs and personal development, highlight the crucial importance of human resource (HR) professionals as they are often perceived as central to the organisational ethos within many workplace settings.

4.21 However, this is not always the case particularly in small-medium enterprises (SMEs) where contrasting in-house and external types of provision exist. Potentially, career development interventions have benefits for both employers and individuals but there appears to be limited evidence of substantive studies in this area of research. An example of a relatively small-scale study below illustrates the potential for more in-depth investigation into alternative approaches to harnessing specialist guidance workers to support individuals within companies:

• Hughes and Sheldon (2000) examine an innovative approach whereby trained guidance consultants from a specialist careers service, worked closely with individuals who had been identified as the lead person for managing specific change within their company. Models for managing change (Kanter, 1992) suggest that building a commitment to change requires: positive re-enforcement of competence; avoiding creating obvious losers from the change; minimising surprise; and giving people advanced warning of new requirements. The findings from this ADAPT funded project suggest that with precise targeting, the use of guidance is more cost-effective than simple universal delivery of information and advice.

4.22 It could potentially be argued that more longitudinal and cross-national studies would be helpful to help examine more closely individual experiences and how these relate to situational and motivational factors. For example,

• Maurer et al. (2003) examined the effects of individual, situational, motivational, and age variables, on a wide range of work-related learning and development activities in the USA. Using a new longitudinal theoretical model, the authors conclude that a person involved in work-based learning/development activities, will be someone who has been involved before, believes in the need for development and in his/her ability to develop skills, and perceives him/herself to have social support for development at work and outside of work.

One longitudinal study has been commissioned to develop a theoretically-informed and evidence-based analysis of both immediate and longer-term outcomes of workplace-linked interventions designed to improve adults' basic skills. This study is part of the ESRC Teaching and Learning Research Programme and the project is due to run from 2003 to 2008.12

Involvement of intermediaries

4.23 This category refers to studies that include examples of both ‘concealed’ and ‘unconcealed’ methods used as a mechanism to trigger motivation to engage in learning.

12 For further information, see: www.tlrp.org/proj/phase111/wolf.htm and www.ioe.ac.uk/tlrp/workplaceskills
4.24 A growing number of studies highlight the importance of mentors (inter alia, Stead, 1997; Colley, 2003; Godshalk and Sosik, 2003) in supporting individuals to access and participate in new learning opportunities.

- Eby et al. (2004) explored the effect of negative mentoring given this aspect has been neglected in other research studies. The findings demonstrate that some poor quality career development interventions have a negative, adverse effect on individuals’ motivation to engage in learning for work.

- Godshalk and Sosik (2003) examined the importance of the ‘match’ between the learning goals of mentors and protégés as a means of determining the success of the relationship. Their study found that where mentors and protégés shared high and similar learning goals, protégés reported higher levels of psycho-social support and career development than where mentor and protégé were less well-matched.

- Colley (2003) draws upon detailed case studies to reveal the perspectives of the participants and the complex power dynamics of the mentor relationship. Highlighting the emotional costs and counter-productive outcomes of mentoring, as well as its benefits, Colley argues that mentoring cannot be separated from the wider power relations that surround those involved.

- Payne (2001) examines the role of Trade Unions in lifelong learning. The review findings highlight the importance of trade union learning representatives in employee development, particularly in providing credible ‘advocates’ for change.

- Thursfield and Holden (2004) evaluated a workforce development pilot focused around the role of ‘expert’ learning brokers acting as intermediaries between employers and learning/training providers. As a result of the actions of the learning brokers, the identification of learning needs was enhanced and although levels of training did not increase, planned training within the pilot companies was brought forward. However, the authors argue that in order to maximise the benefits of learning brokers, their longer-term relationship with companies needs to be fostered and resourced.

4.25 Although there is some statistical evidence which directly relates to the involvement of intermediaries (inter alia, 2003, 2004; and Payne, 2001), the findings from our review show that research studies in this area are mainly qualitative rather than quantitative.
Chapter Five: Conclusions and Recommendations

5.1 In this chapter, we summarise the key findings from the review of literature sources and provide recommendations to support public policy development in this area.

5.2 In assessing the body of available evidence, a key consideration is the depth and quality of research currently available to substantiate the outcomes of career development interventions, aimed at level 2 or below, and how these motivate employees to engage in learning for work. The review findings show that many studies focus on ‘process’ and/or ‘activities’ rather than the learner ‘outcomes’ from career development interventions over time.

5.3 Our review of methodologies used by some researchers also gives rise to concerns about their transparency in research reports. It is quite clear from the review of available evidence that many small-scale studies exist with anecdotal evidence contained within the reports. There appears to be a lack of robust longitudinal studies that focus on outcomes from career development interventions.

5.4 The results point to some major concerns about the ‘quantity and quality of published research’ that considers the impact of career development interventions, at level 2 or below, from within and outside the workplace on motivating employees to engage in learning for work. Many research studies were eliminated at an early stage of the review process because they focused on unemployed and/or high achievers, rather than low-skill/semi-skilled workers. Clearly, there are major research gaps which need to be filled to help policy-makers and deliverers of services gain a better understanding of career development interventions that work well for individuals in the workplace qualified at level 2 or below.

5.5 The review has successfully identified that the impact of career development interventions are ‘context’ dependent, and that there is an interaction between context and learning factors influencing employees’ motivation for learning at, or for work. The process had also identified the potential for existing research in this area to be extended in order to deepen our understanding of these interactions.

5.6 The conclusions that can be drawn from the review are limited due, at least in part, to the nature of available research. In particular, research was insufficient in terms of:

- assessing the outcomes of employee development schemes (EDS) and processes designed to inform and motivate individuals in learning and personal development;

- career coaching within the workforce for individuals at level 2 or below; and

- differentiation in the research literature between employee and employer benefits.

It was also noted that there is a distinct lack of research that is longitudinal in nature. The majority of studies represent a ‘snapshot in time’, which may explain
why there is limited data on the influences of career development interventions on individual learning. The lack of longitudinal studies has been partly addressed by the ESRC Teaching and Learning Research Programme. This has commissioned a number of longitudinal studies in the area of workplace learning, adult learning and lifelong learning. Most of these projects run for three to five years and are due to report in 2007 or 2008.\textsuperscript{13}

\section*{Recommendations}

This brief literature review has highlighted a number of key issues for government policy-makers, researchers, managers, practitioners, trainers and students. The key recommendations signify main areas where action is needed to enrich the quality of available research, and to address existing gaps in research. The recommendations are addressed to policy-makers, researchers, trainers, managers and practitioners. These have deliberately not been classified in categories indicating key stakeholders responsible for implementation. The work of the National Guidance Research Forum (NGRF), established by DfES in 2004, provides an ideal platform to discuss these issues, and to identify priorities for research that could further inform UK career development policy and practice within and outside the workplace.

\subsection*{Engaging with ongoing research}

(i) Research, funded by the ESRC under their Teaching and Learning Research Programme, should be engaged with, since it is directly relevant to this area of work. (para. 4.22)

\subsection*{Innovative approaches to gathering research evidence}

(ii) Robust, \textit{longitudinal research} should be undertaken which provides insights in the longer-term benefits of career development interventions for workplace learning. This requires funding support from policy-makers and other interested parties. Given the current Government’s skills agenda, there is evidence to suggest that it may be very timely to undertake a ‘formal review’ of planned research studies that specifically relate to career development interventions within and outside the workplace. (para. 3.15, 4.22)

(iii) A balance of rigorous \textit{quantitative studies} is needed to complement qualitative research that exists. The majority of research studies which met the set criteria were largely ‘qualitative’. (para. 4.25)

(iv) \textit{Comparative studies} may also be useful to explore the relationship, if any, between career development interventions for adults with differing qualification levels.

\textsuperscript{13} For further information, see: www.tlrp.org/proj/Workplace.html, www.tlrp.org/proj/phase111/daniels.htm and www.tlrp.org/proj/phase111/biesta.htm
Priorities for future research and policy development

(v) In new research studies, increased emphasis should be placed on the outcomes of career development interventions and how these impact on individuals, rather than the benefits of interventions for the employer. (para. 3.5, 4.5, 4.13, 4.16)

(vi) Further research into the ways in which contextual and environmental factors impact on individual motivation to engage in learning for work is required (para. 4.9). More account should also be taken of intervening variables, such as gender, ethnicity, age and disability, regarding access to workplace learning opportunities, for individuals qualified at level 2 and below. (para. 4.10)

(vii) Research into career coaching within and outside of the workplace, for adults at level 2 or below, is currently under-developed. Overall, the process and application of career development interventions designed to motivate adults into learning would benefit from greater attention from both the policy-makers and guidance research community. (para. 3.5, 4.6)

(viii) Although there is some evidence to suggest that formal on- and off-the-job training can increase learner confidence and motivation to engage in further training, less attention has been paid to the role and impact of informal mechanisms. Future research could usefully address this gap in existing knowledge. (para. 4.17).

(ix) Some innovative work with small and medium enterprises has helped to illustrate the advantages of effective career development interventions and work-related learning for these types of organisations. However, further research into alternative approaches to, and policies for, harnessing the expertise of specialist guidance workers in support of SMEs is required. (para 4.21)

Dissemination of research

(x) There is scope to continue the research dialogue on how best to identify and to address key issues relating to career development interventions in the workplace, through the National Guidance Research Forum website (cited in the Skills White Paper, 2005. Part II para. 167).
Chapter Six: Bibliography and Research Report Summaries

6.1 This chapter provides detailed summaries of the studies concerned with career development interventions, at level 2 or below, from within and outside the workplace, that were reviewed as part of this project. An extended bibliography is also included for the reader.


Focus of Study: This paper examines the motives and expectations that underpin employee development initiatives in three retail banks, and the underlying assumptions that shape how such initiatives are implemented in practice. Organisational and individual employee perspectives on development are examined. These findings show the impact of employee development initiatives on individuals' willingness to learn and take personal responsibility for their own development. The analysis highlights the nature of the interaction between individual and organisational priorities and draws attention to some of the challenges that underpin employee development initiatives.

Key findings: All three banks adopted employee self-development schemes, primarily because they were perceived by the organisations to provide a degree of flexibility. The three banks differed in their perceptions and approach to self-development and there was significant variation in terms of how the schemes were introduced.

Employee perspectives on the impact of employee development initiatives varied within and across the three banking institutions. Almost half (46%) from Bank ‘A’ believed that their organisation encouraged learning, compared with 56% from Bank ‘B’ and 81% from Bank ‘C’. Although all employees of Bank ‘C’ and almost three quarters of Bank ‘B’ (73%) reported that their organisation encouraged them to take personal responsibility for their own development, only 50% of Bank ‘A’ employees felt encouraged to do so.

The research concluded that the multiplicity of interpretations and meanings attached to employee development initiatives (such as self-development) mediated employees’ perceptions of the impact of the schemes. The factors that can influence employee perceptions and experiences of development schemes include: perceptions of the organisation; organisational culture, policies and procedures; employee relations; and the extent of the synergy between the employees’ and the organisation’s strategic and operational priorities.

*Focus of Study:* This study is concerned with how people acquire skills in the workplace, and with the strengths and weaknesses of informal training.

*Key findings:* Informal training amongst the Indian mechanics was dominated by a ‘repetitive learning model’ whereas ‘reflective practice’ is much more common among informally trained mechanics in Europe. The strengths of informal training were found to be: innovation; tacit knowledge development; learning of appropriate skills; and accessibility. The weaknesses of informal training were found to be: poor reflective practice; difficulty in adopting new technologies and tools; safety; and lack of accreditation.

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*Focus of Study:* The research is concerned with Employee Development Schemes (EDS), defined as schemes that provide employees with access to opportunities for personal development not directly linked with their current role and responsibilities. The study was designed to map take-up of EDS within organisations in order to update and address gaps in existing information about them. Particular emphasis was placed on the number, type, age, and location by sector of EDS and how EDS are developing and operating.

*Key findings:* The research report concluded that EDS are typically an employer-led benefit that applies to all employees irrespective of level of educational attainment. EDS provide a fixed amount of funding for non-work related training. They are usually specific to individual firms, however, there are examples of where groups of employers have worked together to develop and support this type of initiative. EDS are often not linked to qualifications and are seen to benefit the employer and employee by keeping the latter interested and able to learn.

The research findings suggest that approximately 1500 employers in England were involved in EDS in 2001. Although there has been a dramatic rise in the in the number of organisations with less than 200 employees taking up EDS since 1997-1998, the number of organisations overall has declined. The research suggests that EDS is more prevalent in retail, finance, pharmaceuticals, utilities, banks, schools, colleges, automotive industries and manufacturing. Little evidence of systematic EDS arrangements was found in local authorities, health care trusts, tourism, hotel and catering, transport, communications and construction.

In general, it was financial incentives, as opposed to business planning, that led to the introduction of EDS. However, some good practice linking EDS to business objectives was identified. A variety of funding mechanisms were in place. One in seven organisations fully funded external courses. Where full funding was not provided, employees were either encouraged to seek funding through Individual Learning Accounts and/or jointly fund the course themselves.
EDS are delivered through a mixture of on-site and external provision. Over two-thirds of those organisations surveyed reported providing access to on-site learning facilities.

The majority of schemes were for employees only. They were introduced as a means of improving skill levels, increasing staff commitment, motivation and loyalty and encouraging learning in a work environment. From the employers’ perspective, the benefits to employees of EDS are increased confidence and improved learning skills. The case study evidence reveals that employees felt that they had been encouraged to engage in further work-related and/or vocational learning as a result of participation in EDS. Employees also reported increased confidence, morale, motivation and skill levels.


Focus of Study: This study examined the reasons for participation in, and benefits of, four different employee development activities. It aimed to determine the factors that facilitate or discourage participation in development activities and the effectiveness of different development activities for organisations and individuals.

Key findings: The research findings demonstrate that older workers are significantly less likely to take part in voluntary development activities, in particular courses designed to enhance work-based craft skills and work-based business skills. However, older workers are more likely to report lower levels of learning confidence and learning motivation. As further analysis revealed a positive correlation between education level, learning motivation and learning confidence and participation, it is suggested that these factors, rather than age, are more likely to impact on participation.

Employees are more likely to participate in learning when they have the support from their manager, co-workers and family and friends. However, time constraints, particularly amongst those employees who work shifts, can have a negative impact on participation. All respondents, irrespective of age, reported increased knowledge, skills or abilities are a result of voluntary development activities.


Focus of Study: The study considers the extent to which attitudes towards jobs and career motivate individuals to engage in learning and facilitate knowledge transfer. The research examines constructs including ‘job involvement’ and ‘career commitment’ together with their effects on learning motivation and learning transfer.
Key findings: Learning motivation was a significant predictor of learning transfer and career commitment was positively related to learning motivation and learning transfer. Job involvement was not significantly related to learning motivation and learning transfer.

Pursuit of learning may represent an individual’s desire to enhance his/her employability rather than job performance. However, career commitment suppressed the effect job involvement had on learning transfer. Environmental factors (such as technological advancement and demands for new skills) are expected to affect career commitment.

It was found that people with strong career commitment are more likely to plan for their careers paths. Two major career goals identified include enhancing future career prospects and improving personal performance. Career commitment significantly predicted learning motivation and learning transfer.

It was noted that in order to enhance the learning habits of employees, organisations should plan to establish employee development schemes and give employees a visible future promotion ladder from within the organisation.


Focus of Study: The research focuses on the meaning of mentoring and what can be achieved through mentoring relationships. The author draws upon detailed case studies to help explain the dynamics of the mentoring relationship.

Key findings: The analysis highlights many negative aspects of the engagement mentoring model, but also supports findings from other research which concur: when individual’s are allowed to negotiate mentor relationships on the basis of their own needs and concerns, they usually perceive mentoring in a highly positive way, and can identify important benefits they have gained from the experience. Moreover, this individual work is not necessarily counter-posed to group-based educational practices.

Evidence from informal community education suggests that an initial period of one-to-one support may be a vital precursor for some members of marginalized and disadvantaged communities to be able to participate in collective learning that can lead to action for change. Whilst Colley’s work focuses primarily on work with young people, there are many relevant aspects to the mentoring relationship that can be applied both within and outside of the workplace.

Focus of Study: Two studies were conducted that focused on the negative and positive mentoring experiences of protégés and how these types of experiences relate to career support and learning. The purpose was to understand the effects of negative mentoring, as this has been neglected in other research, and how negative mentoring may affect protégé outcomes over and above positive mentoring.

Key findings: Significant correlations were found with relational complementarily, social exchange perceptions, intentions to leave the relationship, depressed mood and psychological job withdrawal. Most frequently reported metathemes (from the original study) were: perceived mismatches between mentor and protégé in terms of values, work styles and personality; distancing behaviour (e.g. mentors who neglect or intentionally exclude their protégés from important meetings or events); manipulative behaviour (e.g. situations where the mentor wields his or her power in a tyrannical manner, or taking credit for a protégé’s hard work); lack of mentor expertise, including interpersonal and technical skills; and general dysfunctionality where the mentor displays a negative attitude toward their work or the organisation, or has personal problems that interfere with his or her ability to mentor (e.g. excessive drinking or family problems).

Lack of career-related support is perceived as: not helping the protégé attain desirable positions (lack of sponsorship); not providing feedback (lack of coaching); failing to protect the protégé from potentially damaging situations (lack of protection); not challenging the protégé (lack of challenge); and not taking initiative to help the protégé become visible to important organisational players (lack of exposure).

The absence of psychosocial support reflects: not having pleasurable social interactions (lack of friendship and social functions); not serving as a role model (lack of role modelling); not being a sounding board for personal concerns (lack of counselling); and not conveying positive regard toward the protégé (lack of acceptance).

Some relationships are marked by both positive and negative experiences. Others are primarily positive or mainly negative, whilst other relationships fail to meet the protégés needs, but are not regarded as damaging (neutral). Positive mentoring is identified in the form of career-related support (e.g., coaching, challenging assignments, sponsorship) and psychosocial support (e.g., acceptance, counselling). Four phases of mentoring are identified: initiation, cultivation, separation, and redefinition.

**Focus of study:** The study focuses on the introduction of Employee Development Schemes (EDS) in small to medium sized companies and the impact these schemes have on employees’ perceptions and attitudes to learning for work. Emphasis is placed on small firms and those employees with no prior experience of learning in order to explore the role of EDS in increasing motivation to learn and skills development.

**Key findings:** The research found that irrespective of learning history, attitudes to learning were positive, confirming the findings of previous research. The research identified degrees of difference between respondents in their perceptions of learning suitability, its relevance to them and their motivation for involvement. This results in four groups of individuals who differ in their initial approach to an EDS learning course: new learners (often unskilled or semi-skilled, with little experience of adult learning); wavering learners (more at ease with own ability, often with some prior adult learning experience, but do not automatically turn to learning); committed learners (often more experienced learners who look to learning more readily as an option); and non-learners. Other factors dictating the likelihood of involvement in learning include personal finances.

The study suggests there is a wide variety of EDS. Attitudes towards the concept of EDS are generally positive and tend to remain stable or improve over time. One third of the sample were attracted to learning by the EDS; one third were galvanised into action; one third were much further along the road to involvement before the EDS was implemented. Employees were encouraged to take-up EDS by financial incentives. Other motivators were grouped into three subsets and varied according to the individual and their circumstances: those relating to the individual (accepting challenge, expectations of enjoyment, social contact); those relating to work (job insecurity, the desire to improve their career prospects); and those relating to the focus of the learning (personal interest in subject, CV improvement).

De-motivators and barriers to involvement in EDS comprise two types: personal barriers (lack/fear of learning experience, lack of time, satisfaction with status quo, suspicion of company motivation in offering EDS) and those related to the EDS itself (lack of awareness of scheme, schemes that require individual to be proactive in seeking information).

Two thirds of the sample reported that they had benefited from the EDS. All groups, but new and wavering learners in particular, benefited from EDS. The benefits included increased commitment to learning and a willingness to look to learning in the future. The opportunity to engage in learning led to other discrete benefits, such as increased confidence and self esteem, the ability to value learning more readily, less reticence about future learning experiences, greater flexibility inside and outside the workplace. Respondents reported that companies also benefit from EDS as they are perceived to produced happier and better trained employees which increases company morale and fosters cohesion and team spirit.

Focus of Study: The author provides a wide-ranging review of third-age career guidance, learning and employment policy and practice in the UK. The report was initiated as part of the Joseph Rowntree Foundation’s Transitions after 50 research programme.

Key findings: Although the report focuses on learning, work and guidance issues for people aged 45+, the emphasis throughout is on learning and ‘career’ transition and development in a lifelong context. The report is, therefore, relevant for all age groups, including young people. It considers:

- The effects of third-age unemployment and under-employment, and demographic change, on: national economies; local communities; and individuals - including older members of ethnic minorities, people with disabilities, those with low basic skills or whose skills require updating, older people with high skill levels but few if any qualifications, people living in areas of persistent high unemployment or made redundant from declining industries, and others who may encounter difficulties additional to their age.
- Main barriers encountered by older adults who wish to continue learning and developing their careers, and how these barriers might be alleviated.
- How employer attitudes, and current workplace conditions and practice, may affect older workers.
- Career guidance and learning requirements of older adults.
- National and international Government understanding of, and attitudes towards, career guidance.
- Current learning, and career development and guidance provision, in the four countries of the UK.
- Varying government attitudes towards older adults and their potential economic and social contributions, and the extent to which Government policies are ‘joined up’ and co-ordinated.

Some key points and observations arising from the findings include the following:

- At present policies tend to be largely reactive, with much of the emphasis on older adults as receivers of services rather than positive contributors to the GNP.
- Many older employed and unemployed adults are disadvantaged on grounds of age irrespective of level of previous qualifications. Third-age skills training strategies should therefore encompass all levels of ability and not be restricted to people who have not yet attained level 2 qualifications. However, the needs of the less well qualified should be seen as paramount.
- Many older adults want to continue working, but also want a change of direction for a variety of reasons, including awareness of previously under-utilised potential and changes in personal interests and values. Simultaneously, many older adults want to retire from their current place of work (but not stop working) because they find aspects of work, including management approaches and conditions in the workplace, unsupportive and uncongenial. There are profound issues here for Government, economy, employers, guidance and learning providers and older individuals themselves.
• ‘Lifelong learning’ should be genuinely lifelong and seen as a public, as well as private, investment. There is currently a national shortage of readily accessible and affordable opportunities for older adults to retrain and upskill, or to prepare for ‘active retirement’ and improve their quality of life through non-vocational as well as more vocational provision, including training in skills relevant to volunteering.

• Training and lifelong learning programmes, and career development support strategies, need to be much more widely available in the workplace and open to all age groups irrespective of occupational status. Many employers need additional help to understand the relationships that link training, lifelong learning and career development support with higher staff motivation and efficiency, and therefore with increased company productivity and profitability.

• The processes and objectives of career guidance, and its key role in helping to realise economic and social policy, are insufficiently understood by government and senior policy makers.

• Mechanisms are required in the UK that facilitate the ready exchange of experience on lifelong learning, skills training and career guidance, and enable the four nations to learn from and build on each other’s good practice, including good practice in work with older age groups.


*Focus of Study:* The research aimed to investigate whether unsuccessful mentoring relationships may result from the different learning goal orientations that the mentor and protégé bring to the relationship. It examines how the similarity between a mentor’s and protégé’s learning goal orientation is associated with mentoring functions received and protégé expectations regarding career outcomes.

*Key findings:* The research demonstrates that protégés who possess high levels of learning goal orientation that were similar to their mentor were associated with the highest levels of psychosocial support. These protégés also reported higher levels of career development, idealised influence, enacted managerial aspirations, desired managerial aspirations, and career satisfaction when compared to mentor–protégé dyads who possessed low levels of learning goal orientation or dyads with dissimilar levels of learning goal orientation. Learning-goal-oriented mentors and protégés are likely to focus on effort and intrinsic motivation, as a means of utilising ability, and raising expectations of accomplishments.

Results of planned comparisons indicate that similarity between mentor and protégé learning goal orientation was associated with protégé ratings of mentoring functions received and protégé outcomes. Protégés who possessed high levels of learning goal orientation similar to their mentors reported: the highest levels of psychosocial support received; higher levels of career development received than protégés who possessed low levels of learning goal orientation similar to their mentors; higher levels of idealised influence (behaviour and attributes) than protégés who possessed low levels of learning goal orientation similar to their mentors and protégés who possessed higher levels of learning goal orientation than their mentors; and similar
levels of career development and idealised influence (behaviour and attributes) as protégés who possessed lower levels of learning goal orientation than their mentors.

Protégés who possessed high levels of learning goal orientation similar to their mentors reported: higher levels of enacted managerial aspirations than protégés who possessed low levels of learning goal orientation similar to their mentors and protégés who possessed lower levels of learning goal orientation than their mentors; higher levels of desired managerial aspirations than protégés who possessed lower levels of learning goal orientation than their mentors; and higher levels of career satisfaction than protégés who possessed low levels of learning goal orientation similar to their mentors.


Focus of Study: A non-vocational employment development initiative which aimed to promote individual growth through stimulation of thinking capacity; increased self confidence; the release of energy; and understanding of life in general. The study aimed to determine whether it encourages wider participation in learning.

Key findings: Without exception all participants interviewed had enjoyed their learning activity and, in the main, the specific objectives of the learning activity were felt to have been achieved. There was evidence from over half the participants (and particularly from those who had taken up a learning activity as something that they would not otherwise have done) that there were broader benefits. The most positive replies were about increased confidence. Responses that clearly corresponded to the other two wider benefits, "release of energy" and "understanding of life generally", were less evident. Whether in overcoming barriers to make a return to learning or in discovering the attraction of personal learning, there is clear evidence of wider benefits to many of the participating employees. The extent to which the employer also benefits from such changes is more difficult to judge and may well only be realised over the medium-long term.


Focus of Study: The study is an exploration of women’s workplace learning through human resource development initiatives. The purpose of the research is to use critical and feminist perspectives to explore the experiences of women in the workplace and with workplace training as delivered through HRD.

Key findings: The research points out serious flaws in many assumptions underlying mainstream training and development programs about why and how women work in the office or on the shop floor. For adult educators, questions of who defines “productive work,” as well as how that work is rewarded, become central to understanding the workplace and its role in controlling workers and in shaping the production of knowledge. Findings emerged under two themes: women and organisational change, and disappearing boundaries among work, family and
community. Both case study organisations were experiencing dramatic changes – 
flattening out of organisational hierarchies leading to increased demand for higher 
skills. This demand was a central rationale for expanding the HRD’s role as 
facilitator of organisational change. Training was concentrated on helping workers 
to be flexible, docile and adjustable. In theory, the ideal learning organisation 
should combine personal and work-related development, but in practice for 
employees it rarely meets this expectation.

Paper. Derby: Centre for Guidance Studies, University of Derby.*

**Focus of Study:** It examines an innovative client-centred approach to effecting 
change and developing a learning culture using guidance within the workplace. It 
focuses on supporting and enabling individuals to face and manage change in their 
workplace by investing in workforce development through education and training. 
It examines the role of guidance in this process.

**Key findings:** Sixty-five percent of respondents believe that employers should guide 
them on external career options. Clearly, employers are well placed to provide 
information about the skills and learning required for specific internal jobs and 
avancement, and to recognise the learning needs of their staff. Only half (54%) of 
employers reported providing information about learning. This was often job or 
company specific, and could therefore lack independence and impartiality about 
options and routes. More critically, employer-led learning is unlikely to be 
conducive to encouraging individual motivation and commitment to lifelong 
learning.

Individual meetings with the Guidance Consultant were described by the majority 
as ‘a very well prepared and organised meeting which targeted the relevant issues 
promptly and efficiently.’ Others stated that it offered an excellent opportunity to 
learn more up-to-date information regarding business development. There were 
those who described the meeting(s) as: broadening perspectives by making explicit 
the options available and providing key contacts; providing advice and information 
on relevant training opportunities at a local and regional level; helping to achieve set 
targets often linked to personal and company goals; clarifying objectives and areas 
of interest linked to an agreed action plan; presenting creative ideas and lateral 
thinking to support business goals; helping to generate more sales and leads through 
networking and training opportunities; and encouraging and supporting a culture of 
change and critical reflection on individual and company needs.

Clearly, the personal element, the guidance and the immediate accessibility of 
assistance that a ‘support person’ brings are seen as being crucial for developing the 
business plans and the workforce. Other forms of intervention in the workplace such 
as business counselling often have their focus drawn towards ‘business activity’ 
rather than the individual. Personal development approaches focus on the 
individual but with less of a direct link to the specific demands in the workplace. 
The ‘agent for change’ model adopts a person-centred approach that concentrates on 
equipping the worker to meet the challenge and drive forward an agreed programme 
for change within the company.

**Focus of Study:** The focus of the study was primarily on workforce development practice in small and medium enterprises. The study aimed to address three central research questions: what is the relationship between corporate assessments of workers’ development needs and workforce development strategies?; how is learning in the workforce taking place?; and what learning methods are being used and how effective are they?. Specifically, the project aimed to identify key features of current practice in workforce development and suggest how this could be improved and extended. Its objectives were to: assess the extent and effectiveness of workforce development; examine how priorities for workforce development are identified; identify the types of learning that are taking place – in terms of content and delivery – and assess the effectiveness of this in relation to corporate and individual objectives; and develop criteria for good practice in supporting learning in the workforce.

**Key findings:** Employees emphasised the importance of clearly defining workforce development and distinguishing between specific development needs within a given workplace and the development needs of the workforce as a whole. They also felt it was important to distinguish between learning which is of benefit to the employer as well as the individual and that which is of benefit to the individual only.

Employees in firms of up to 50 staff were less likely to have their training needs formally identified and more likely to receive on-the-job training. The type of business, occupation of employee and employment status all influenced the type workforce development undertaken. Organisational culture influences the value attached to and the perceived benefits of workforce development. All respondents regarded business change, product development, changes in legislation, the need for multi-tasking/multi-job roles and the introduction of new technology as the key drivers of training needs. Employees in small firms of up to 50 staff also reported that the outlook of the owner manager on the firms’ growth and sustainability was also a key driver. Time was regarded a key constraint on off-the-job training in particular.

Almost without exception, respondents felt that their employer should pay for job-related training and that provision should be made within working hours to undertake the training. Respondents felt that basic, job specific skills were best delivered on-the-job, but that it was more effective to learn complex skills off-the-job. Indeed the majority of respondents reported learning on the job, although there was some evidence that employees in medium-sized firms had undertaken formal structured off-the-job training.

Respondents cited the following factors and incentives which motivated the workforce to learn in terms of both vocational and non-vocational learning: personal satisfaction, achievement, self-fulfilment; better future/job prospects, employability; job satisfaction; increased chance of promotion; better pay; qualifications/certificates as proof of training; quality standards in firms; performance related targets; interest in topic/subject; chance to fulfil a personal
ambition; thirst for knowledge; to ‘keep up with the times’; to stay ahead of the
game.

Respondents were most likely to be motivated to undertake work-related training by
job-related factors and to undertake non-vocational training by intrinsic factors such
as a sense of achievement.

Maurer, T. J., Weiss, E.M. and Barbeite, F.G., (2003), A Model of Involvement
in Work-Related Learning and Development Activity: The effects of
individual, situational, motivational and age variables. Journal of Applied
Psychology. 88 (4), 707-724.

Focus of Study: This is a large-scale 13-month longitudinal study of the effects of
individual, situational, motivational and age variables on involvement in learning
and development activities in the United States. The study investigated a wide
variety of developmental activities including on-the-job, off-the-job, voluntary,
required, skill-building, feedback-seeking and career planning initiatives. A new
model of involvement was posited and tested. The study focused on attitudes and
interest, intentions to participate, and actual participation in development as
outcome constructs in the model. A detailed treatment of age differences in
development was presented.

Key findings: A host of individual and situational antecedents were correlated with
attitudes towards, intentions to participate, and actual participation in development
activities. In general, it appears the results are consistent with the hypothesised
sequence of relationships: employee age – individual and situational variables –
perceived benefits and self-efficacy for development – development attitudes –
intentions for development – participation in development.

The age of an employee negatively affects the individual and situational variables
that can otherwise enable or predispose a person to development. Individual
learning preparedness and career variables, along with situational support for
development, contribute to beliefs that favourable benefits will result from
participation in development and to self-efficacy for development. Higher beliefs
regarding favourable benefits and self-efficacy lead to favourable attitudes toward
development, and this leads to greater intentions to participate, which leads to
subsequent participation. Prior participation also directly predicted intentions above
and beyond this chain of relations.

Although there were several significant effects for age noted here, overall the age
effects were relatively small, and there were no direct effects on overall
involvement.

The model depicts a person who will be involved in development as someone who
has been involved in such activities before, believes in the need for development
and in his or her ability to develop skills, to receive intrinsic benefits from
participating, and who perceives him- or herself as possessing learning qualities, as
having social support at work and outside of work for development, as being job
involved, and as having career insight.

*Focus of Study:* The research focused on the accreditation of competencies. Broadly, it aimed to analyse: the implications of SVQs for personal development (for example, self-esteem, job satisfaction and motivation) and their implications for individual career development and employability. It also aimed to analyse the implications of SVQs for job performance and study the process of the accreditation of competencies by examining the rationalist versus subjectivist schools of learning.

*Key findings:* Respondents were broadly neutral over the extent to which their SVQs had contributed to the promotion. There was weak agreement that an SVQ would make it easier to get a job outside the company. In general it was felt that on-the-job learning was the most important factor to enhance career prospects. Employees were broadly neutral over the extent to which SVQs had increased their job satisfaction. There was weak agreement that the SVQ has increased their self-esteem, their organisational commitment and made them more motivated to do their job. Overall it was felt that the process was quite easy, although it was perceived as bureaucratic and not very enjoyable to undertake. The success of SVQs was in part attributed to the level of interest managers took in employees’ SVQs and the opportunities provided to practice skills on completion of the qualification. Furthermore, managers gave the candidates encouragement to complete the process of accreditation. Those with no university or college background liked the fact that it was work based and it gave them a qualification to prove their skill level. Even those with university degrees preferred the vocational approach, which was not ‘school like’ and the continuous assessment was easier than studying for a single exam. Individuals liked the fact that it was more interactive, with work-based projects.


*Focus of Study:* The research focused on the role of trade unions in lifelong learning, within concepts of modernisation and reflexive modernity.

*Key findings:* Trade union learning reps have direct links across all sectors to individuals and organisations who are least likely to adapt to change – the unskilled, semi-skilled and craft workers. Many learning reps have, themselves, found union activity and office a gateway into learning for the first time since leaving school. They are, therefore, credible advocates for change and the introduction of trade union learning initiatives can act as an intervention and motivation for people to engage in learning.

*Focus of Study:* An evaluation of the Massachusetts Workplace Education Initiative (MWEI) that focused on outcome assessments through an examination of the perspectives of union representatives and management and learners. It aims to offer recommendations for program enhancement, co-ordination and marketing. The evaluation is divided into two studies: assessing adult learners; and assessing union leaders, members and representatives of upper and middle level management.

*Key findings:* Organisational factors, plus gender and ethnicity were all found to influence learning in the workplace and outcomes of the initiative. Diversity of adult learner population is significant in predicting outcomes – in particular age, gender, socio-economic status - which also deserve attention when designing a program. Similarly diversity of industry and program design are significant variables in predicting program outcome. Agreement reached between adult learners, union representatives and supervisors that reading, writing and speaking skills had improved as a result of the program. Workplace education has changed working conditions in a positive ways. Participation in workplace education programs results in increased self-confidence, an outcome which is perceived to positively influence many areas of an adult learners life, including relationships with co-workers and job performance. Almost four-fifths (78.6%) of supervisors recognised a change in the workers as a result of participation in the program including speaking more English, increased self-confidence, improved understandings of assignments, improved problems solving, contributing their own ideas more, working with less interruptions, more positive attitude, working independently and improved job performance. Over a third (36.5%) of workers think their chances of promotion are improved by being in a program. Two-thirds (66.7%) of managers saw no changed in mobility.

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*Focus of Study:* The focus of the research study was on one particular organisational education and training intervention, and on how individuals experienced the learning and implementing of part of that intervention, namely group process facilitation. It also focussed on how learning from the program was transformed, shaped and moulded by the social experiences of the participants when they returned to their workplace. The study addressed the need to understand how individuals interpret and give meaning to the social and personal impact of learning and implementing group process facilitation during the learning program and in the workplace.

*Key findings:* There were four important factors reported that impinged on the learning process for the participants and that helped them construct new realities: the novelty of the learning environment; the value of flexibility; the value of openness; and the educational value of difference.
A more informal environment, than what participants were used to, was initially found confusing, uncomfortable, uneasy, threatening, bewildering, and stressful. All participants commented on the novelty of the environment.

Flexibility in the approach taken to imparting information about group process facilitation, helping participants absorb the information and providing opportunities for participants to practice their new learning was different to the hierarchical structures of the organisation. Participants considered this type of flexibility a benefit to learning.

Managers had selected participants for the learning program. Some of these were briefed about the reasons for their selection by their managers, which included the need to develop an agreed learning plan for their career development and the potential benefits. These participants generally stated that they were open to the aims and objectives of the learning program, were motivated to participate as openly and as completely as possible, and were keen to implement their new learning back in the workplace. For those participants who were not well informed, the evidence indicates that this resulted in uncertainty and confusion and had a negative impact on their development, including doubt about the learning program; ambiguity about the content, structure and style of the learning program; participants not wanting to go on the course; and doubt about the benefits of the learning program, their role in it, and their concerns about implementing their learning in the workplace. All participants said that the actions of others in their group were difficult and challenging on some occasions. All participants regarded their understanding of other people, and experiential learning in their group, as a positive experience, thus, illustrating the educational value of difference.


Focus of Study: It focuses on the flexible delivery of an apprentice training programme and examines the learning preferences of apprentices and the support that they receive in the workplace. It also examines different/better support for flexible delivery of training for learners, trainers and enterprise contexts and assesses the level of support given to them in their workplaces to engage with activities supporting their construction of knowledge and skill.

Key findings: Apprentice learning preferences are not well suited to the self-directed and independent learning expected by flexible delivery. Support for apprentices in the workplace is also not suited to their learning preferences or to supporting flexible delivery. Three types of learning preferences are identified: verbal-nonverbal, structure and social-independence. In general, apprentices prefer hands on direct experience to qualitative learning material that is delivered through verbal material; strongly prefer a high degree of structure at one end and less structured content at the other; and prefer an environment that is characterised by instructor and peer support.
Types of learning support and their use vary and are identified as: worker observation; demonstration; discussion with fellow worker; discussion with supervisor; environment observation; experimentation; and practise.

**Stead, R., (1997), Mentoring young learners: does everyone really need a mentor? Education and Training. 39 (6/7), 219-224.**

*Focus of Study:* It focuses on mentoring young learners and the environment in which mentoring is successful, defined by direct learning outcomes. It aims to identify and promote good practice in work-based learning with a particular emphasis on the contribution of mentors, investigating six themes: whether everyone need a mentor; mentoring and expert knowledge; whether mentors train in a non-vocation-specific context; mentoring versus managing; formality; and problems in recruiting mentors.

*Key findings:* Learning support in the workplace comes in many forms and is not confined to conventionally-defined mentoring. It is crucial that the mentor has expert knowledge and that this knowledge is in the relevant vocational field. Tension was found between mentoring and managing which was impeding learning. The manager/mentor was not considered beneficial. Mentoring was considered successful, in that it was helping learners to learn, when it takes place in the context of a formal meeting. Mentoring was found to be a time-consuming process so there were difficulties in recruiting mentors. It was also found that learners and mentors needed a stable environment (i.e. stable employment) to create an enduring and effective relationship, thus suggesting that with shortening job tenures, situations in which mentoring can occur are tending to diminish in number.

**Thornhill, P., (2001), A Study into Reasons for Younger Worker Drop-out from Full NVQs/NVQ Units. Sheffield: Department for Education and Skills.**

*Focus of Study:* The DfES commissioned this study to isolate the factors that account for younger worker drop out from NVQ units and full awards for which they have been registered and provide indications of where and how an intervention to help prevent drop out could be made. The study examined the factors that predispose a younger worker to drop out of an NVQ compared with older workers. The underpinning aims of the study were to: examine the particular needs of the younger worker group in terms of NVQ access and attainment and improved progress towards the National Targets for this age group; address the issue of whether there are particular problems or barriers which need to be overcome for young people as opposed to the older person; look at, amongst other things, the design and delivery of NVQs; and consider the impact of the role of the Careers Service and careers guidance in schools.

*Key findings:* Just over half of young people in a Government-supported Training (GST) scheme (51%) are aiming for NVQ Level 2. However, over half (53%) of these do not achieve a qualification. Younger workers are most likely to drop out in the first three months of the qualification. The young person’s employment status at the start of training is the most significant factor influencing early drop out. Ethnicity, previous experience of GST, age at start of training and time of year in
which training started have no significant impact on drop out. Re-analysis of the National Trainee Database suggests that employed status female younger workers represent a greater proportion of the employed group dropping out of training within the first 18 months.

The majority of respondents provided positive comments on the structure of the NVQ and the portfolio development. Respondents valued the opportunity to work and gain a qualification at the same time. Younger workers regard the work-based nature of the qualification as a benefit, as many expressed a preference for experiential learning and not learning in a formal taught environment.

The report concludes that NVQ non-completion has little to do with the learning structure of the NVQ. NVQ drop out is attributed to external factors including wrong initial choice, changes in employer, occupation or employment status, training issues such as employer involvement and support, and quality, consistency and frequency of trainer and assessor support, and financial issues. Perceived lack of, or slow progress, leads to a loss of interest which has a de-motivating effect on younger workers. Whether the younger worker actually expects to complete the NVQ at the outset is a critical factor influencing actual completion. Expectations are influenced by a range of factors including the importance attached to achieving the NVQ qualification relative to other relevant qualifications.

The majority of younger workers consulted felt that it was important or very important to secure an occupation with training; however, getting an occupation and training was regarded as more important than the NVQ qualification itself.


Focus of Study: The aim of the project was to critically evaluate one, local-led, workforce development pilot initiative, designed to address the UK skills ‘problem’. Two ‘expert’ learning brokers were funded by a LSC to act as intermediaries between employers and learning/training suppliers. The aim of the pilot initiative was to assess the efficacy of these learning brokers as a ‘vehicle’ to stimulate and raise demand for skills. The article highlights three case studies to illustrate a range of practice implemented as part of the pilot programmes, which serves as a basis for a critical discussion of the demand-led approach to workforce development.

Key findings: In all three case studies, demand for training increased, although if only to bring planned training forward. The companies benefited from the individual attention of the learning broker and they suggest that the relationship between companies and some form of ‘expert’ training intermediary is one that can be usefully developed in the future.

Several inherent contradictions to the learning broker function in relation to workforce development were identified. The first contradiction concerned the issue of autonomy for the learning broker. This included both internal and external autonomy, e.g. the degree to which brokerage is embedded in a particular employing institution and employment relationship, and the independent status of the broker and his or her freedom of action to provide objective advice. The second
contradiction highlighted the tension between the broker’s need to meet short-term targets for stimulating demand and a broader obligation to ensure value for public monies.

The research concedes that there were fundamental problems and weaknesses in the pilot that may have served to undermine the role of the broker. These were as follows: the inability of publicly funded training initiatives to free themselves from unproductive and debilitating systems of measurement and control; the failure of the broker to mount any substantial challenge to the ‘training grants culture’, partly because of the inflexible LSC targets and timescales; the danger of the broker’s role being compromised without genuine autonomy and independence from companies and providers; and the definition of demand-led training found under workforce development is concerned only with the demands of employers, and when employees are not consulted over their own developmental needs and wishes giving rise to questions of ownership and commitment.


Focus of Study: This aims to provide an overview of the policy context relating to the government’s workforce development agenda and highlights a number of important developments central to the enhancement of workplace learning. The term ‘workplace learning’ is used to embrace all types of learning generated or stimulated by the needs of the workplace, including: formal on-the-job training; informal learning; and work-related off-the-job education and training (see, inter alia, Evans et al, 2002; Eraut et al, 2000; Beckett and Hager, 2002). A key theme is that workplace learning needs to be understood as an embedded process that depends on, but can also shape and change the culture and behaviour of, an organisation.

Key findings: A model of workplace learning which explores how, why and for whom workplace learning occurs i.e. the expansive-restrictive model, is introduced. Unwin strongly asserts the necessity to understand the interaction between the organisational context, the workplace learning environment and the individuals engaged in learning. Unwin indicates if you want to understand why the nature and content of apprenticeships vary so much from one organisation to another, or why some organisations only offer learning opportunities to their managerial staff, you have to examine the following: the history and culture of the organisation; how work is organised and controlled; the skills profile of the company and how the skills are distributed; the extent to which the range of tasks and skills have been mapped; and the availability of a structured learning programme designed to generate opportunities to gain breadth and depth.

**Focus of Study:** Post Offices Inc, The Netherlands implemented a new instruction model for on-the-job training (OJT) of desk employees in response to increased competition in the global market. The broad aim of the study was to assess the quality of the new instruction model using the Jacobs and Jones (1995) evaluation model for structured on-the-job training. It also aimed to identify critical success factors. A series of sub-questions were developed linked to the four components of the Jacobs and Jones model: training outputs; training processes; training inputs; and organisational context.

**Key findings:** Case study employers were on the whole satisfied with the way trainees performed tasks at the desk. Although nine out of ten mentors reported that none of their trainees had achieved the expected score of 80% by the end of the training programme (week four), all trainees showed improvement in their test scores which rose from an average of 55% to over 70%. When average trainees’ scores were compared, the results suggested that the expected score for the test in week 4 was too high.

The length of the programme was considered the minimum to achieve the training objectives, particularly for employees of newly established post offices, or those (mainly provide sector) which were being set up during the training period. Mentors and district managers felt that the programme should be extended to 6 weeks.

The implementation of the model did not meet all expectations and the study illustrates some of the difficulties when implementing OJT. This training model assumed that all products and services would be learned during self-study. However, OJT is only effective if what is learned can be put into practice. As some of the smaller/privately owned post offices did not offer the full range of products and services, in reality modules were delivered on a ‘need to know basis’. Mentors’ performance influences the successful implementation of training models. When mentors are not convinced of the quality of the model, the implementation will not be successful. Mentors, who are generally highly experienced staff, should be involved in the development of the training programme so that their knowledge and experience can be incorporated into the design. Mentors should be adequately trained in order to ensure they fully appreciate the theoretical underpinnings of the model and what it is aiming to achieve. They need to be sufficiently prepared to enable them to discuss the application of the model in practice and deal with presenting issues.

**Focus of Study:** This study presents a model for implementing workplace literacy education that focuses on giving front-line workers or first-line workers basic skills instruction and appreciation for lifelong learning. It focuses on a partnership program between a technical college and an adult education centre and two area businesses. It aimed to prepare employees for technical changes in the workplace and interdepartmental cross-training; upgrade employees’ basic communication and math skills; introduce employees to computer skills and team-building skills; and provide the remedial instruction workers need to attain in order to pursue additional education. It also examined the involvement of trade union learning reps in motivating individual involvement in learning for work.

**Key findings:** Incentives offered included pay or half-pay for class attendance; provision of calculators; measuring tapes, notebooks and tote bags for class; access to computers and laptop computers for skills practice at home; and purchase of a satellite dish to take advantage of distance education. The program was viewed as empowering the workforce and a good-will gesture to employees. Influences included: top management support; change in management; introduction of technology; plant manager and supervisors’ views of employees job skills; and level of workers’ responsibility.

Workplace Literacy Implementation Model highlights areas that need to be addressed for a successful program – selected areas relevant to the review include:
- **Feel Good:** management initiated; little direction and few requirements from company.
- **Employee initiated – learner centred; can be ‘feel good’ or ‘technical needs’**.
- **Retention – Access to computers; follow-up on poor attendance; determine causes of drop-outs (exit survey); treat customer (learner) well; pleasant classroom; appropriate time; learner centred; customer driven; provide customer service.**


**Focus of Study:** This study is concerned with 11 factors, including age, that influence worker engagement in four voluntary development activities provided by a large vehicle manufacturer: a company-sponsored tuition refund scheme; an company-subsidised employee development programme; a company-provided employee development centre; and personal development record made available to each employee to plan and record their progress. The objectives of the study were three-fold: to learn about the age-pattern in activities of each of the four voluntary development activities and to account for each pattern in terms of individual and environment features; to examine age variations in employees’ views about those voluntary activities in terms of their reactions to previous experiences and their preferences for possible future activity; and to consider practical procedures which may bring about greater development activity by older people.
Key findings: Analysis by age demonstrated that older employees were significantly less likely to take part in all four voluntary development activities, and the tuition refund scheme in particular. Low levels of education, learning motivation, learning confidence and non-work support are all significantly associated with both increased age and low levels of participation.

All respondents, irrespective of age, reported increases in their knowledge, skills or abilities as a result of participation in the schemes. Older workers were less likely to express interest in acquiring work-based craft skills, work-based business skills and vehicle do it yourself skills. Age differences were absent in the desire to acquire general skills, home-based craft skills and computing skills. Older staff were equally interested in learning in their own time non-job material as younger staff.

The research concludes that participation in learning appears to increase motivation for further learning, although a causal link is not proven. In order to increase motivation for learning amongst older workers, learning confidence, and non-work support need to be increased and perceived time constraints reduced. However, it should be noted that other factors may impact on older employees’ motivation for learning; for example, it seems likely that the importance attached to career-related activities will decrease with age as employees perceive that their career goals have been achieved. Older employees may not perceive a need to engage in learning and development activities.
Appendix 1

References


Taylor, R., (2004), Britain’s World of Work – Myths and Realities. Swindon: ESRC.


Appendix 2

Project Team and Steering Group

The National Guidance Research Forum Strategic Group acted as Steering Group to the project:

Jane Artese          HECSU
Jenny Bimrose       Institute for Employment Research
Vivienne Brown    Careers Scotland
Gareth Dent          Ufl Ltd
Margaret Gildea   Rolls Royce Plc
Jim Hillage         Institute of Employment Studies
Wendy Hirsh          Chair
Deirdre Hughes    Centre for Guidance Studies
Heather Jackson   NHSU
John Jordan     Connexions Lancashire Ltd
Malcolm Maguire   NICEC
Rob Millar       University of Ulster
Lesley Rees     Careers Wales Association
Ann Ruthven      Guidance Council

Project Team:

Project Director: Deirdre Hughes, Centre for Guidance (CeGS)
Lead Writer: Dr Jenny Bimrose, Institute for Employment Research (IER)
Researchers: Dr Sally-Anne Barnes, and Dr. Michael Orton (IER), and Lindsey Bowes, (CeGS)
Research Assistants: Lisa Flint, Hayley Reynolds and Michelle Wood (CeGS)
Critical Reader: Dr Alan Brown (Principal Research Fellow, IER)
Library: John Marriott (CeGS)
Appendix 3:

Further information on databases

The following information was taken from respective websites in 2004/2005.

**ABI/Inform** [http://proquest.umi.com/login](http://proquest.umi.com/login)

One of the world's first electronic databases, ABI/INFORM has been a premier source of business information for more than 30 years. The database contains content from thousands of journals that help researchers track business conditions, trends, management techniques, corporate strategies, and industry-specific topics worldwide.

The Global edition of ABI/INFORM is available on the Web through ProQuest®, a premier information access and retrieval system. It is suitable for all types of researchers whether online novices or information professionals. Natural language searching, database segmenting, and conceptual smart searching are just a few of the features that help users find the exact information they need quickly and easily.

Includes approximately 1,300 full text titles mainly Business and Economics, overall covering 1971 to present.

**ERIC/BEI** [http://www.bei.ac.uk/bei.htm](http://www.bei.ac.uk/bei.htm)

The British Education Index (BEI) is designed to aid the identification of appropriate literature by people investigating aspects of education or training.

The Index provides details about the contents of various literature sources: over 300 education and training journals published in the British Isles, similar report and conference literature, and texts in the *Education-line* collection.

The range of subjects covered is as broad as the interests of researchers and writers active in the field. Particular strengths include aspects of educational policy and administration, evaluation and assessment, technology and special educational needs.

The Index is maintained within Leeds University Library by a small team responsible for all aspects of Index production including, crucially, the description of the subject content of literature by use of a consistent vocabulary (the British Education Thesaurus) designed specifically for this purpose. This attention to detail distinguishes the Index from similar discovery tools. The Index is available as a subscription print journal, on CD-ROM and over the internet.

**Blackwell Synergy** [http://www.blackwell-synergy.com](http://www.blackwell-synergy.com)

Blackwell Synergy is the online journals service from Blackwell Publishing. It holds the content for most of Blackwell's journals, the majority of which are published on behalf of international scholarly and professional societies. Blackwell Synergy helps to improve the quality of research time by enabling readers to search for relevant articles, read abstracts for free, print the full-text of subscribed to articles, download citations, and make connections to other relevant research through reference linking.

Includes approximately 670 full text titles covering all subjects.
**Business Source Premier**

As the world’s largest full text business database, Business Source Premier provides full text for nearly 7,800 scholarly business journals and other sources, including full text for more than 1,125 peer-reviewed business publications. This database offers information in nearly every area of business including management, economics, finance, accounting, international business, and more. This database provides full text (PDF) for more than 350 of the top scholarly journals dating as far back as 1922. This database is updated on a daily basis via EBSCOhost.

**EBSCO** [http://www.ebsco.com](http://www.ebsco.com)

EBSCO stands for Elton B. Stephens Company. EBSCO Subscription Services, EBSCO Publishing and EBSCO Book Services form the EBSCO Information Services group. EBSCO is a worldwide leader in providing information access and management solutions through print and electronic journal subscription services, research database development and production, online access to more than 100 databases and thousands of e-journals, and e-commerce book procurement.

EBSCO has specialized products and services for academic, medical, government, public and school libraries as well as for corporations and other organizations. EBSCO maintains a comprehensive database of more than 282,000 serial titles and upholds active relationships with more than 60,000 publishers worldwide. EBSCO has been serving the library and business communities for almost 60 years.

**Emerald** [http://www.emerald-library.com/](http://www.emerald-library.com/)

Emerald was established in 1967 by a group of senior academics who, dissatisfied with the international publishing distribution outlets of the time, formed MCB University Press, an alternative publishing house that focused on niche management disciplines including strategy, change management, and international marketing. In 2001 MCB University Press adopted the name Emerald as its new organizational identity, reflecting a renewed, high-level commitment to its guiding principles.

Publisher of the world's widest range of management and library and information services journals, as well as a strong specialist range of engineering, applied science and technology journals. Emerald currently publishes more than 150 journal titles in the fields of management and information science. Emerald Fulltext offers an expanding collection of 40,000 articles from titles published by Emerald.

Includes approximately 135 full text titles, mainly Social Science.

**ERIC** [http://searcheric.org](http://searcheric.org)

The Educational Resources Information Centre (ERIC) is the USA’s information network connecting virtually all educational information providers and educational information users. ERIC is a public service that uses technology to increase access to education research and practice to improve learning, teaching, and community-based educational decision-making.

The ERIC database includes summaries of more than 1,200,000 documents and journal articles on education research and practice written since 1966. The ERIC database is the third most frequently used database in any field (*Computers in Libraries*, February 1995).
Via the Internet, ERIC provides electronic access to a wide range of educational information and resources including full-text lesson plans and tests, thematic essays, reference material, and pointers to what others are doing (eliminated 12/19/2003).

ERIC produces and disseminates more than 2,000 briefing papers (Digests) with over 150 titles added annually. These syntheses provide balanced coverage of all the important education topics, including educational management, assessment, professional development, technology and reform (no new Digests after 1/1/2004).

This was written around January 2003. Since that time, the US Department of Education decided to revise the structure of the ERIC System by eliminating all ERIC clearing houses and most of the services they provide. The government will continue to maintain the core ERIC database and will implement some sorely needed improvements (faster turn-around time, free access to ERIC documents). For more information, see http://www.lib.msu.edu/corby/education/doe.htm and this notice issued by the Department of Education on 25 November 2003.

INGENTA http://www.ingenta.com
Since its launch in May 1998, Ingenta has developed and grown to become the leading Web infomediary empowering the exchange of academic and professional content online. Ingenta supplies access to: 6,000+ full-text online publications; 27,000+ publications.

Kluwer http://www.springerlink.com/
As of January 2005 SpringerLink offers more than 1,250 journals and over 2,500 books from our online book series. All former Kluwer Academic journals are available on SpringerLink. SpringerLink is one of the world's leading online information services for scientific, technical, and medical (STM) books and journals.

SpringerLink offers electronic and printed literature from Springer-Verlag, a pre-eminent scientific publisher with a reputation for excellence spanning more than 150 years. It also offers the work of a growing roster of publishers, including Urban and Vogel, Steinkopff, and Birkhäuser. SpringerLink currently offers over 500 fully peer reviewed journals and a growing roster of series, comprising more than 2,000 books online. SpringerLink, the premier electronic data source from Springer for researchers in biomedicine, life science, clinical medicine, physics, engineering, mathematics, computer science, humanities, and economics.

PsycINFO http://www.apa.org/
PsycINFO is an abstract (not full-text) database of psychological literature from the 1800s to the present. An essential tool for researchers, PsycINFO combines a wealth of content with precise indexing.

Sage Journals Online http://www.sagepub.com
SAGE Publications is an independent international publisher of journals, books, and electronic media. Known for our commitment to quality and innovation, we are a world leader in our chosen scholarly, educational, and professional markets. Since its inception in 1965, SAGE Publications has been a leader in publishing high-calibre titles for academic researchers in the social sciences. Building on that solid foundation, we offer a broad selection of textbooks and resources to enrich the classroom experience for undergraduate and graduate students.

Includes over 100 full text titles, mainly Social Science.
Since its launch in 1997, ScienceDirect has evolved from a web database of Elsevier journals to one of the world's largest providers of scientific, technical and medical (STM) literature. ScienceDirect® is a part of Elsevier ([http://www.elsevier.com](http://www.elsevier.com)).

With ScienceDirect® you can: access over 1,800 scientific, technical and medical peer-reviewed journals; search over 60 million abstracts from scientific articles; and link out to articles from over 170 other publishers.

SOSIG [http://www.sosig.ac.uk/](http://www.sosig.ac.uk/)
The Social Science Information Gateway (SOSIG) is a freely available Internet service which aims to provide a trusted source of selected, high quality Internet information for students, academics, researchers and practitioners in the social sciences, business and law. It is part of the UK Resource Discovery Network. This is a database of over 250,000 Social Science Web pages. Whereas the resources found in the SOSIG Internet Catalogue have been selected by subject experts

Zetoc [http://zetoc.mimas.ac.uk/](http://zetoc.mimas.ac.uk/)
Zetoc provides access to the British Library's Electronic Table of Contents of around 20,000 current journals and around 16,000 conference proceedings published per year. The database covers 1993 to date, and is updated on a daily basis.
Appendix 4

Search strategy for electronic databases

The following search strings are some successful examples applied in the various electronic databases searched.

**ABI/Inform**
- adult AND learn* AND work
- career development AND employee AND work
- career development AND learning AND work
- employee AND work AND learning

**ERIC/BEI**
- Adult with(3) learning AND workplace AND development
- Employ? AND learning AND advice
- Career with(3) development AND employee AND learn?
- Career with(3) development AND work? AND employee

**Blackwell Synergy**
- adult AND learn* AND work
- career development AND learning AND workplace

**Business Source Premier**
- career development AND learn* AND work*
- employee AND education AND career
- mentoring AND work* and learn*

**EBSCO**
- adult AND learning AND work*
- adult AND learning AND policy
- career counselling
- career development
- vocational AND training

**Emerald**
- career development AND education AND work
- career development AND skill?
- employee AND education
- mentor* (NOT sport) AND work
- workplace AND learning AND motivation
INGENTA
employ* and learning and advice

Kluwer
(adult) AND (education) AND (policy)
(learning) AND (workplace)
(work) AND (learning) AND (policy)

PsycINFO
career development AND training AND employee
employee AND learning AND motivation
career development AND adults AND work

Sage Journals Online
adult AND learn*
career development
employee AND ‘workplace learning’

ScienceDirect
career development
employee AND learning
employee AND training AND motivation
guidance AND workplace

Zetoc
employee motivation
employee development
workforce development
### Appendix 5

#### Search terms

<table>
<thead>
<tr>
<th>keyword 1</th>
<th>keyword 2</th>
<th>Career development interventions (within and/or outside the workplace)</th>
<th>Level 2 (search by inspection only)</th>
</tr>
</thead>
<tbody>
<tr>
<td>adult</td>
<td></td>
<td>Learning (this search included: action, continuous, distance, e-learning, early career, experiential, formal, incidental, informal, lifelong, non-formal, off-the-job, on-the job, self-directed, situated, vocational, workplace, work-based)</td>
<td>Policy (this search included: in-company, career development, staff development, training, work based, workplace)</td>
</tr>
<tr>
<td>employee</td>
<td></td>
<td>Education (this search included: career, community based, in-company, lifelong, on-the job, off-the-job, vocational, work-based)</td>
<td>advice</td>
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<td>labour / labour force</td>
<td></td>
<td>Training (this search included: in-service, off-the-job, on-the job, work-based, vocational, in-company)</td>
<td>Andragogy</td>
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<td>worker / work</td>
<td></td>
<td>accreditation for prior experience and learning /APEL / AEL / APL</td>
<td>assessment</td>
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<td></td>
<td></td>
<td>Bilan de compétence</td>
<td>basic skills</td>
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<tr>
<td>career development</td>
<td></td>
<td>career(s) advise(r)</td>
<td>career(s) awareness</td>
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<td>computer assisted instruction</td>
<td></td>
<td>career counselling / counselling</td>
<td>career(s) interview</td>
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<td>curriculum at work</td>
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<td>career management</td>
<td>coaching / career coaching</td>
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<td>employee development</td>
<td></td>
<td>VET / vocational education and training</td>
<td>community based career education</td>
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<td>Knowledge development</td>
<td></td>
<td>workforce development</td>
<td>computer aided/assisted guidance</td>
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<td>Personal development</td>
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<td>workplace</td>
<td>conscientization</td>
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<tr>
<td>VET / vocational education and training</td>
<td></td>
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<td>counselling/programmes</td>
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<td>work</td>
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<td>CPD/ continuing professional development</td>
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<td>diagnosis</td>
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<td>EDAP / EDPS</td>
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<td>employee development schemes</td>
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<td>Employer training pilots</td>
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<td>Foundation Modern Apprenticeship</td>
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<td>HRD / human resource development</td>
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<td>HRM / human resource management</td>
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<td>IAG</td>
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<td>induction</td>
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<td>information</td>
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<td>learning organisation</td>
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<td>mentoring</td>
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<td>National Learning Targets</td>
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<td>preceptor</td>
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</tbody>
</table>
Appendix 6

Data extraction instrument

<table>
<thead>
<tr>
<th>1. Biographical Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Author(s)</td>
</tr>
<tr>
<td>Date of Publication</td>
</tr>
<tr>
<td>Title</td>
</tr>
<tr>
<td>Journal Title*</td>
</tr>
<tr>
<td>Journal Volume*</td>
</tr>
<tr>
<td>Journal Number*</td>
</tr>
<tr>
<td>Page Number*</td>
</tr>
<tr>
<td>Place of publication*</td>
</tr>
<tr>
<td>Publisher*</td>
</tr>
<tr>
<td>Commissioning body</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>2. Focus of the Study</th>
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</thead>
<tbody>
<tr>
<td>Main topic focus of the study. If the study has a broad focus and this data extraction focuses on just one component, please specify here and provide details:</td>
</tr>
<tr>
<td>Broad aims of the study:</td>
</tr>
<tr>
<td>When the study was carried out:</td>
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<tr>
<td>Demographic details of participant population(s):</td>
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<td>Location of the study:</td>
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</tbody>
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<tr>
<th>3. Methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical approach:</td>
</tr>
<tr>
<td>Sampling strategy including sampling frame and sample size:</td>
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<tr>
<td>Data collection methods:</td>
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<td>Data analysis methods:</td>
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<tr>
<td>Strengths of methodological approach (if applicable):</td>
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<tr>
<td>Limitations of the approach (if applicable):</td>
</tr>
</tbody>
</table>
### 4. Findings

Results/ main findings:

Conclusions:

Recommendations:

### 5. Analysis

Summary of the ways in which the article contributes to the literature review. For example:

- Evidence to demonstrate that a CDI has a positive impact on motivation for learning for work:
- Evidence of factors that facilitate learning for work:
- Evidence of barriers to learning for work:
- Evidence of factors that influence the outcomes of workforce development: