

# Education and Lifelong Learning



The Scottish  
Government

## Skills Utilisation Literature Review



# SKILLS UTILISATION LITERATURE REVIEW

## CFE

The views expressed in the report are those of the author(s) and do not necessarily reflect those of the Scottish Government or any other organisation(s) by which the author(s) is/are employed.

The Scottish Government is making this research report available on-line in order to provide access to its contents for those interested in the subject. The Scottish Government commissioned the research but has not exercised editorial control over the report.

Both documents are published by Education Analytical Services,  
Lifelong Learning Research, Scottish Government,  
3<sup>rd</sup> Floor, Meridian Court, Glasgow, G2 6AT.  
If you have any enquiries about these reports  
please contact 0141-242-5454.

© Crown Copyright 2008

Limited extracts from the text may be produced provided the source is acknowledged. For more extensive reproduction, please write to, the Chief Researcher at Office of Chief Researcher, 4th Floor West Rear, St Andrew's House, Edinburgh EH1 3DG

Scottish Government Social Research  
2008

## **Table of Contents**

EXECUTIVE SUMMARY	1
1 INTRODUCTION	8
2 POLICY CONTEXT	10
Summary	10
The productivity gap	10
UK Skills Strategies	14
Skills utilisation: Context and Definitions	19
3 METHODOLOGY AND APPROACH	21
Methodology	21
Approach	23
Quality assurance	25
4 MARKET DRIVEN WORKPLACE APPROACH	27
Summary	27
Introduction	27
Learning Transfer	28
High Performance Working	31
Conclusion	43
5 STATE DRIVEN WORKPLACE APPROACH	44
Summary	44
Introduction	44
Norway	45
Finland	47
Ireland	50
New Zealand	52
Concluding discussion of the state driven workplace approach	53
6 HOLISTIC APPROACH	54
Summary	54
Introduction	54
Australia	55
Singapore	59
Malaysia	60
Concluding discussion of the holistic approach	61
7 MEASUREMENT OF SKILLS UTILISATION AND LINKS WITH CONTEXTUAL FACTORS	62
Summary	62
Introduction	63
The measurement of skills utilisation	63
Links between skills utilisation and contextual factors	68
Conclusion of the links between skills utilisation and contextual factors	78
8 CONCLUSIONS, GAPS AND RECOMMENDATIONS	79
Conclusions from the evidence base	79
Gaps analysis	80
Recommendations moving forward	82
9 REFERENCES	85
APPENDIX A: QUESTIONS FROM THE RESEARCH SPECIFICATION	93
APPENDIX B: DATABASES AND WEBSITES	95

APPENDIX C: SPREAD OF LITERATURE

96

APPENDIX D: LIST OF ACRONYMS

97

# EXECUTIVE SUMMARY

## *Introduction*

- 1 CFE were commissioned by the Scottish Government in July 2008 to undertake a literature review on skills utilisation. The aim of the literature review was to bring together literature evidence on skills utilisation in order to provide a clear picture of the nature and extent of the current evidence base, identify current knowledge gaps and make recommendations regarding areas for further exploration.
- 2 This review is the first element of the Skills Utilisation Project led by the UK Commission for Employment and Skills (UK Commission, 2008a). This report is intended to inform the Scottish Leadership Group on Skills Utilisation (set up by the Cabinet Secretary for Education and Lifelong Learning), and enable the development of a future analytical work programme in this area by the Scottish Government (Social Research, 2008).
- 3 The literature review covered UK and international literature on skills utilisation covering four main areas:
  - Definitions
  - Implementation and current practice, including policy interventions
  - Impact
  - Gaps and areas for further exploration
- 4 The review was undertaken over a six week period (July – August 08) during which time a wealth of data was searched, selected, categorised and synthesised. This report seeks to present the breadth of available information in a coherent and clear manner to advance work within this area and where possible answer the specific questions outlined in the Research Specification (see Appendix A).

## *Policy Context*

- 5 Productivity is an important indicator of international competitiveness. In UK public policy, alongside competition, innovation, investment and enterprise, skills are seen as playing a crucial role as a lever for stimulating UK productivity growth.
- 6 As a consequence for many years skills policy has featured prominently where the goal of creating a highly skilled workforce as a driver for economic competitiveness has long been sought. Two of the most recent examples being Skills for Scotland (Scottish Government, 2007a) and the Leitch Review of Skills (HM Treasury, 2006a).
- 7 However, evidence has failed to produce a conclusive and causal correlation between increased investment in skills (frequently shorthanded to qualifications) and increased productivity. Despite unprecedented levels of policy interest raising educational attainment and investment, the UK still lags behind Germany, France and the USA on labour productivity.

- 8 This suggests that whilst there is a wealth of research exploring the links between skills and productivity the evidence (or lack of) suggests that the relationship between skills and productivity is more complex than a simple maxim of more skills equates to increased productivity.
- 9 This is not to dismiss the value of greater skills acquisition as a social mobiliser and input to greater productivity, but to recognise that skills policy sits within a complex dynamic of a broader strategy for economic development. Moreover, it is important to also understand that it is not simply about the acquisition of skills (frequently shorthanded to qualifications) but a broader perspective that is concerned with both skills formation (stock) and their subsequent deployment (skills utilisation).
- 10 This has been recognised explicitly with the Scottish Skills Strategy (Scottish Government, 2007a) and the first year business plan of the UK Commission for Employment and Skills (UK Commission, 2008), itself a reflection of the commitment across the UK (including all four home nations) to ensuring that employees are being utilised to the full in the workplace and the role of the UK Commission in investigating the effective deployment of skills in the workplace.

### **Definition of skills utilisation**

- 11 The term skills utilisation is becoming increasingly used in both UK and international literature, and is regaining currency in policy discourse. The origins of skills utilisation in UK policy can be traced back to the work by Soskice and Finegold in 1988 and the work of the National Skills Taskforce in 2001 (DFEE 1999 – 2001).
- 12 From our literature review there was no established definition of skills utilisation. The majority of literature related to management practices and strategies to achieve effective application of skills within the workplace with the overarching aim of raising business performance. From this employer employee centric definition the literature broadens into policy interventions where the goal is the same but the field of application becomes employers and the wider labour market. Logically, as the field of application broadens so do the possible range of interventions, with a corresponding increase in the number of agents that have a role to play. From this and our analysis of the available literature we offer the following as a definition of skills utilisation for consideration by policy makers;

*‘Skills utilisation is about ensuring the most effective application of skills in the workplace to maximise performance through the interplay of a number of key agents (e.g. employers, employees, learning providers and the state) and the use of a range of HR, management and working practices. Effective skills utilisation seeks to match the use of skills to business demands/needs.’*

### **Approaches to skills utilisation**

- 13 Our analysis of the literature related to skills utilisation has been categorised into three broad categories based on the approach taken: the market driven

workplace approach; the state driven workplace approach; and the holistic approach. Table 1 summarises the approaches taken towards skills utilisation.

**Table 1 Implementation of the approaches at a glance**

	Market driven workplace	State driven workplace	Holistic
Focus	Organisation	Organisation	Industry / National
Driver	Business performance	National productivity	National prosperity
Model	HPW Learning transfer	National strategy Workplace projects (HPW) Fund	National strategy (combining acquisition and utilisation) Stakeholder engagement Sector wide projects Fund
Enablers	Leadership and management Employee trust	Buy-in – employers, employees	Buy-in – all stakeholders

14 Explaining each of these in turn:

*The market driven workplace approach*

- 15 This approach to skills utilisation focuses on implementing change in individual workplaces. The literature includes evidence of two specific practices that employers have used to achieve improved skills utilisation in the workplace: Learning Transfer; and High Performance Working (HPW).
- 16 Evidence of the implementation and impact of Learning Transfer is limited, however, there are two notable examples<sup>1</sup> (from health services in the US and UK). Whilst these two examples appear to show some success, wider application is not evident in the literature.
- 17 HPW dominates the literature on market driven workplace approaches to skills utilisation. Evidence shows that organisations implement HPW in response to a market need (e.g. increased competition, poor profit performance) and where they believe that the skills of their workforce are an important driver of business performance.
- 18 There is no ‘one’ best set of practices, rather it is the crucial role of the business strategy that determines which particular practices are implemented in response to specific organisational needs.
- 19 Overall, take up of HPW by UK employers has been limited; ignorance, inertia, inadequacy and impediment are given as the main reasons for a lack of implementation. Evidence shows that sector, size and country of origin influence

<sup>1</sup> The Transfer of Learning Matrix (US) and the Skills Escalator (UK)

whether an organisation implements HPW, with more evidence of HPW having been adopted in larger organisations; the manufacturing sector; and in the UK in foreign owned organisations.

- 20 The literature identifies leadership and management and employee trust and motivation as core factors that are both the main enablers of skills utilisation and the focus of HPW practices (HPWP) within organisations.
- 21 A number of economic and social benefits to employers and employees have been identified, including increased business performance, job satisfaction and motivation.

#### *The state driven workplace approach*

- 22 This approach to skills utilisation continues to focus on implementing change within the workplace but with the state (be that national or sub national government) taking on a pivotal role in driving forward the agenda. The aim of the approach is to improve national rather than individual organisation productivity and the state plays a lead role in the implementation.
- 23 The literature identifies Norway, Finland, Ireland and New Zealand as examples of this type of approach. Each has a state-led strategy or programme which delivers project activity within individual organisations. The focus of the implementation has been in two areas: employee well-being; and increased productivity.
- 24 The impact of the approach has been measured in terms of both social (e.g. employee well-being in Norway) and economic (e.g. productivity in Ireland). The evidence suggests that the impact has been limited to those organisations that were part of the project activity. The evidence suggests there has been no attempt to link the impact to national productivity.
- 25 The literature suggests that the impact of the approach in some countries (Norway in particularly) has been hampered by low levels of organisational buy-in (including evidencing the benefits to organisations) and an inability to effectively disseminate best practice and therefore encourage further organisations to be involved.

#### *The holistic approach*

- 26 This approach takes a broader perspective on skills utilisation. It is driven by the State (in collaboration with other key agents) where countries recognise that: a) the skills of its native population is an important driver of productivity; and b) addressing the skills issue can only effectively be achieved through collaborative working between the state, employers, employees and providers of learning services in its broadest sense.
- 27 The literature identifies Australia, Singapore and Malaysia as examples of this approach. All have developed strategies and programmes designed to implement wide-scale changes to specific priority industries. The outputs have



been industry-wide strategies and projects designed to make organisations in those sectors more productive internationally.

- 28 The literature review identified a limited amount of evidence in terms of the impact of the holistic approach. What little evidence there is suggests that there has not been an attempt to evaluate the impact of skills utilisation on national productivity. There is some evidence that the projects have had a positive impact in the industries in which they were implemented. The approach has delivered relatively more social outcomes than economic ones.
- 29 Evidence regarding the impact of holistic approaches to skills utilisation is patchy with limited evaluations and no measurable outcomes identified. This in part is due to a lack of common definition of skills utilisation, many holistic approaches to skills utilisation being in early stages of implementation, and the nature of the holistic approach which means that measurement and identifying causal relationships is very complex.

### ***Measurement of skills utilisation and links with contextual factors***

- 30 The measurement of skills utilisation is not an easy task. The lack of an agreed definition, different approaches taken and the fact that the literature focuses on the impact of skills (and not necessarily their utilisation) add complexity to the analysis.
- 31 The evidence shows that productivity and well-being are the two main drivers for the implementation of skills utilisation. However, evidence in terms of the measurement of both productivity and well-being is limited.
- 32 Six data sources have been identified that measure elements related to skills utilisation: Skills Survey 2006; People and the bottom line; Human Resources Management and General Management survey; Skills for Business Network Employer survey; Chartered Institute of Personnel and Development survey; and Workplace Employment Relations Survey (WERS).
- 33 When attempting to measure skills utilisation the majority of research focuses on employers and the measurement of the uptake of HPW. Only one survey focuses on the employees' perspective; and only one focuses on both sides (employer and employee's perspective). Furthermore the lack of clarity of the term skills utilisation makes it difficult to confirm whether or not these sources are indeed measuring the utilisation of skills.
- 34 The relationship between skills (mainly measured through qualifications) and productivity is not straight forward. Evidence shows that acquiring skills will provide benefits to the individual which can impact positively on an organisation's performance and, at aggregate level, contribute towards improvements to national productivity. However, the main conclusion from the literature is that, even though a relationship between skills and productivity has been identified, the evidence has not been sufficient to conclude the existence of a causal relationship between both variables.

- 35 The evidence identifies a link between skills utilisation and a range of workplace matters such as employee motivation, job design, employee participation, equality issues, collective agreement and well being. The evidence in this regard is quite vast but cannot conclude if the link identified is causal, however, there is an emphasis on moving the research towards a better understanding of how the impact is achieved.
- 36 The evidence highlights that leadership and management are the factors that will have the greatest impact on skills utilisation. Three levels of management will affect skills utilisation: people management, management of the learning acquired and management of the organisation. The literature discusses sector and market affects on skills utilisation and employers demand for skills.

### **Conclusions**

- 37 The concept of skills utilisation is becoming increasingly discussed in both UK and international literature, and is regaining currency in policy discourse. However, much of the literature related to the topic does not explicitly use the term. Moreover, the majority of the literature focuses on skills acquisition rather than the narrower field of the utilisation of skills in the workplace / economy and as such evidence on impact of specific interventions, market or state instigated, is relatively limited.
- 38 Whilst we found no pre established definition of skills utilisation from our analysis we would offer the following as a definition for consideration by policy makers;
- ‘Skills utilisation is about ensuring the most effective application of skills in the workplace to maximise performance, through the interplay of a number of key agents (e.g. employers, employees, learning providers and the state) and the use of a range of HR, management and working practices. Effective skills utilisation seeks to match the use of skills to business demands/needs.’*
- 39 Secondly, in order to present a disparate range of material in a meaningful way we categorised the approaches to skills utilisation on two key variables: the number of agents involved, and the driver for change. From this categorisation it has been possible to identify three bodies of evidence: market driven workplace approach, state driven approach and a holistic approach.
- 40 Approaches to skills utilisation originated within the workplace by individual employers striving to improve business performance through improved utilisation of the skills of their workforce (market driven workplace approach). Building on this, a number of countries have sought to encourage employers to effectively use the skills of their workforce and developed an overarching strategy and specific programmes to support individual businesses in this quest (state driven workplace approach). In addition to this, there is evidence of some countries taking a broader perspective focused on raising national prosperity through involving employers, employees, learning providers and the state in skills utilisation (holistic) to achieve industry wide and national impacts on productivity.

- 41 Each approach represents a broadening of the context from market through to holistic approaches and builds on each other, but always share the workplace as the core structure for its implementation. It should be noted that the different approaches are not mutually exclusive.
- 42 Within the approaches to skills utilisation the vast majority of state interventions were one-off, time restricted initiatives delivered by governments through a discrete source of funding. There was little evidence of state interventions designed to deliver systemic change.

### ***Gaps and recommendations***

- 43 The first caveat is that it is important to note that a literature review of itself is not able to give the answer as to what should be done, particularly where the policy and practice of what skills utilisation is, is of itself not well understood. It has, however, been possible to draw on the available literature presented to make suggestions for further work to progress this agenda.
- 44 Firstly, there are gaps in the knowledge base in terms of the extent of practice of skills utilisation across countries, sectors and different businesses. From this there are a lack of benchmarking metrics as to what would then constitute effective skills utilisation and from this a lack of knowledge on the impact of skills utilisation (be that workplace or holistic). More broadly there are knowledge gaps in establishing clear links between skills utilisation and economic productivity and social wellbeing.
- 45 To move forward this agenda the following areas are recommended for further consideration:
  - The establishment of a definition of skills utilisation;
  - Comparative analysis of existing approaches, from market driven to holistic, to see which approach is likely to be of greatest interest to an individual nation or region;
  - Identification of work streams that would underpin a nation (regional, or sectoral) specific approach to skills utilisation;
  - From whichever approach is adopted the importance of defining clear roles and responsibilities for key agents;
  - Developing a framework of measurement so that any strategy which is implemented can be subsequently evaluated;
  - The continuing importance of ensuring that any strategy for skills utilisation is embedded within a wider strategy for economic development which should be ambitious in its expectations of business and business leadership;
  - The pulling together of all of the above into coherent delivery plans (again drawn up at a national, regional, or sectoral level) which provide a comprehensive and logical approach to change.

# 1 INTRODUCTION

- 1.1 CFE were commissioned by the Scottish Government in July 2008 to conduct a literature review on the topic of skills utilisation. The aim of this literature review was to bring together evidence on the topic of skills utilisation to provide a clear picture of the nature and extent of the current evidence base, identify current knowledge gaps and make recommendations regarding areas for further exploration.
- 1.2 This review is the first element of the Skills Utilisation Project led by the UK Commission for Employment and Skills (UK Commission, 2008a). This report is intended to inform the Scottish Leadership Group on Skills Utilisation (set up by the Cabinet Secretary for Education and Lifelong Learning), enable the development of future analytical work programme in this area (Social Research, 2008), and add to ongoing work by the UK Commission for Employment and Skills<sup>2</sup> (UK Commission, 2008a).
- 1.3 The literature review covered Scottish, UK and international literature on the topic of skills utilisation mainly from 2000 to the present day, with a focus on recent years. The review covered available literature<sup>3</sup> on the utilisation of skills of those in work and considered four main areas:
  - Definitions
  - Implementation and current practice, including policy interventions
  - Impact
  - Gaps and areas for further exploration
- 1.4 This review was undertaken over a period of six weeks. A wealth of data was searched, selected, categorised and synthesised. The review seeks to present the breadth of available information in a coherent and clear manner to advance work within this area and where possible answer the questions outlined in the Research Specification (see Appendix A).
- 1.5 Within the scope and time limitations of this project it has not been possible to undertake an analysis of the range of factors related to skills utilisation, a majority of which would require primary research or secondary data analysis (this is discussed further in Chapter 8).
- 1.6 The report structure includes eight chapters. The next chapter sets the policy context of the skills utilisation agenda in the UK. Chapter 3 presents the methodology used and the approach to the review. We then move on to present the evidence by the three main approaches to skills utilisation identified in the literature (Chapter 4, 5 and 6). Chapter 7 provides a summary of the measurement of skills utilisation and its link to contextual factors such as productivity, workplace matters, and leadership and management. Our final

---

<sup>2</sup> <http://www.ukces.org.uk/Default.aspx?page=4629>

<sup>3</sup> Within the timeframe of this literature review it was not possible to review all the literature available on the topic of skills utilisation. However, the range of literature included in this review provides a thorough and robust overview and is representative of the topic as a whole.

conclusions, assessment of gaps in the current evidence base and suggestions for further work are presented in Chapter 8.

## 2 POLICY CONTEXT

### Summary

Productivity is an important indicator of international competitiveness. In UK public policy, alongside competition, innovation, investment and enterprise, skills are seen as playing a crucial role as a lever for stimulating UK productivity growth.

As a consequence for many years skills policy has featured prominently where the goal of creating a highly skilled workforce as a driver for economic competitiveness has long been sought. Two of the most recent examples being Skills for Scotland (Scottish Government, 2007a) and the Leitch Review of Skills (HM Treasury, 2006a).

However, evidence has failed to produce a conclusive and causal correlation between increased investment in skills and increased productivity. Despite unprecedented levels of policy interest raising educational attainment and investment, the UK still lags behind Germany, France and the USA on labour productivity.

This suggests that whilst there is a wealth of research exploring the links between skills and productivity the evidence (or lack of) suggests that the relationship between skills and productivity is more complex than a simple maxim of more skills equates to increased productivity.

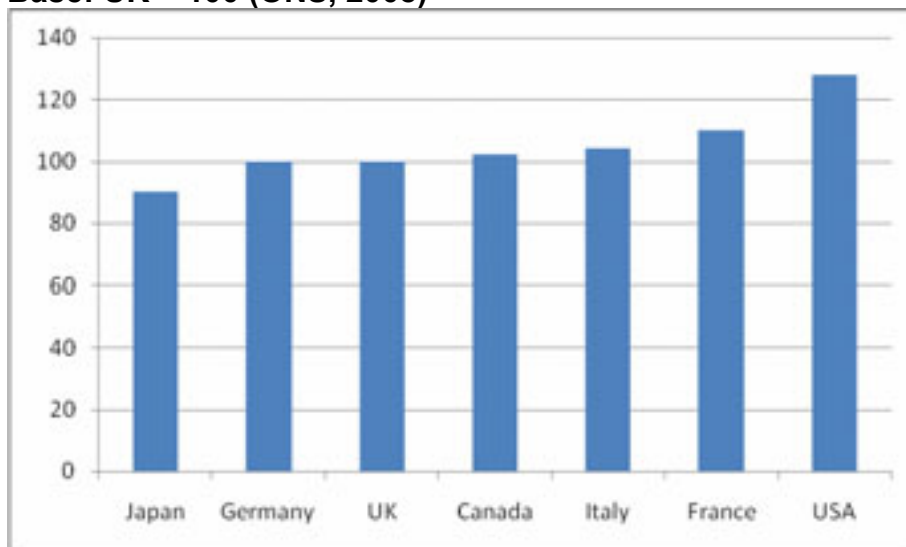
This is not to dismiss the value of greater skills acquisition as a social mobiliser and input to greater productivity but to recognise that skills policy sits within a complex dynamic of a broader strategy for economic development. Moreover, it is important to also understand that it isn't simply about the acquisition of skills (frequently shorthanded to qualifications) but a broader perspective that is concerned with both skills formation (stock) and their subsequent deployment (skills utilisation).

This has been recognised explicitly with the Scottish Skills Strategy (Scottish Government, 2007a) and the first year business plan of the UK Commission. This is a reflection of the commitment across the UK (including all four home nations) to ensuring that employees are being utilised to the full in the workplace and the role of the UK Commission in investigating the effective deployment of skills in the workplace.

### The productivity gap

2.1 Productivity is an important indicator of the international competitiveness of a country. The UK is currently the fifth largest economy in the world (World Bank, 2008). It is also fifth in the international comparisons of productivity (behind the USA, Italy, France and Canada) as Figure 2.1 shows:

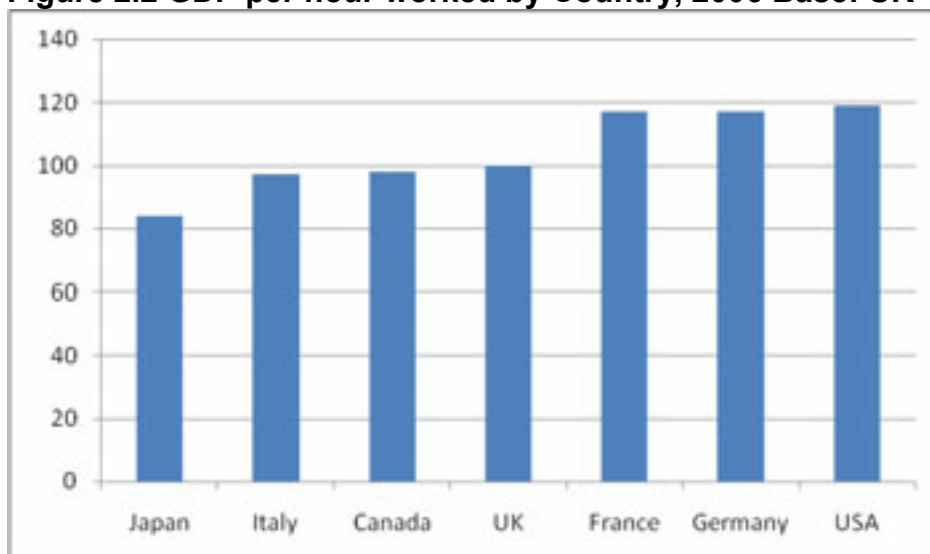
**Figure 2.1 International Productivity Comparisons (GDP per worker), 2006 Base: UK = 100 (ONS, 2008)**



2.2 Figure 2.1 shows measures of productivity in terms of GDP per worker and shows that the UK lags 28 per cent behind the USA on this measure (ONS, 2008). Although productivity levels in the UK are behind those in Canada and Italy, and ahead of those in Germany, differences of a few percentage points between the productivity estimates for individual countries should not be seen as significant because of difficulties in making fully consistent international comparisons (ONS, 2008).

2.3 GDP per worker is just one measure of productivity and there are a range of others measures that can be used for international comparisons of productivity. Figure 2.2 shows the measure of GDP per hour worked which takes into account different working patterns across countries and is therefore a better measure of workplace productivity. On this measure the UK lags considerably behind Germany, France and the USA.

**Figure 2.2 GDP per hour worked by Country, 2006 Base: UK = 100 (ONS, 2008)**



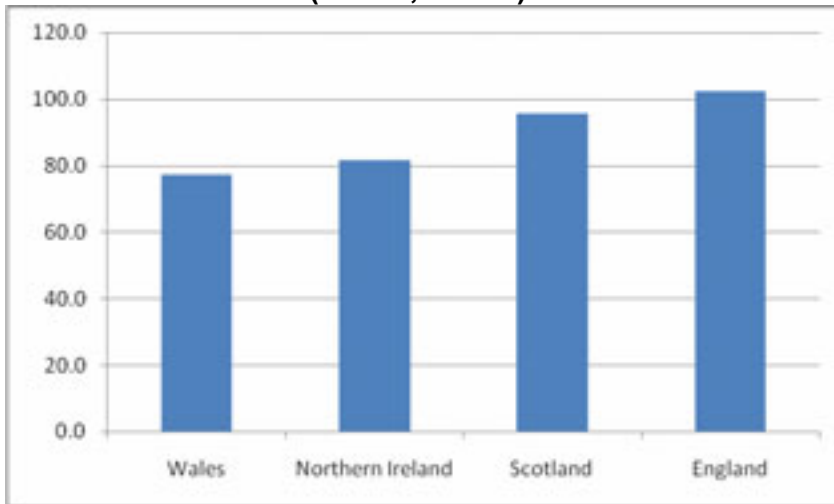
- 2.4 Like any other country, the UK strives to increase its productivity and competitiveness on the international stage and progress has been made. The UK's labour productivity has been lower than that in many industrialised countries since the 1950s. Since the beginning of the 1990s the UK has been narrowing the gap with France and Germany and stabilising the differences with the USA. But as the current picture on productivity shows there is still more to be done.
- 2.5 In 2001 the UK Government set out an analysis of the underlying drivers of productivity growth. HM Treasury (2006a) identifies five drivers of productivity growth: competition, innovation, investment, skills and enterprise.
- 2.6 Since then, research has been conducted around each of the drivers of productivity. Research exploring the link between skills and productivity is particularly vast (Haskel and Hawkes, 2003; Tamkin et al., 2004 and Tamkin, 2005). The UK has been creating a highly skilled workforce as a prime mechanism for increasing productivity.
- 2.7 The consequences of not investing in skills was initially set out in The Skills White Paper (HM Government, 2005) which suggested that a low level of skills is a significant barrier to increased productivity:
- '[A] lack of skills makes it harder for employers to introduce the innovations, new products and new working methods that feed improvements in productivity. That creates a risk of 'low skills equilibrium', where employers do not express a need for skills because they pay low wages to low-skilled staff to produce low-value goods and services' (HM Government, 2005: 6).*
- 2.8 Following this, the Leitch Review of Skills (HM Treasury 2006b) explored the benefits of investing in skills which indicated that 'the prize' for investing in the skills of a workforce is:
- '...a more prosperous and fairer society... A boost in the productivity growth rate of up to 15 per cent and an increase in the employment growth rate by around 10 per cent. Social deprivation, poverty and inequality will diminish' (HM Treasury, 2006b:4).*
- 2.9 As a result, governments have invested heavily in raising the level of skills in their respective populations. National delivery plans for raising skills have been mainly driven by the strategy outlined in 'World Class Skills: Implementing the Leitch Review of Skills in England (HM Government, 2007)'.
- 2.10 In England there has been a focus on qualifications, with the introduction of targets for basic skills (literacy and numeracy), Level 2 qualifications (equivalent to SCQF Level 5) and Level 4 qualifications (equivalent to SCQF Level 7). Alongside this focus on supply side targets there have also been demand side initiatives such as strengthening the role for Sector Skills Councils (SSCs) and increasing leadership and management capability.



2.11 However, although general progress has been made in terms of raising the level of qualifications across the UK, this progress has yielded little in the way of improvements to productivity when comparing the UK with other countries. This has become known as the productivity gap.

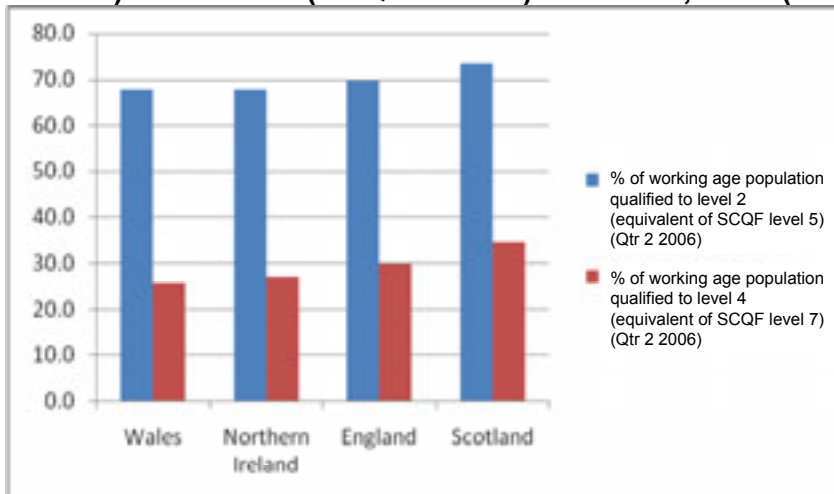
2.12 By way of demonstration, Figure 2.3 shows the productivity (in terms of Gross Value Added (GVA)) of the four home nations. England had the highest level of GVA in 2006 followed closely by Scotland. Northern Ireland and Wales lag behind relatively.

**Figure 2.3 Headline Gross Value Added (Workplace Basis) per Head Indices, 2006 Base: UK=100 (BERR, 2008a)**



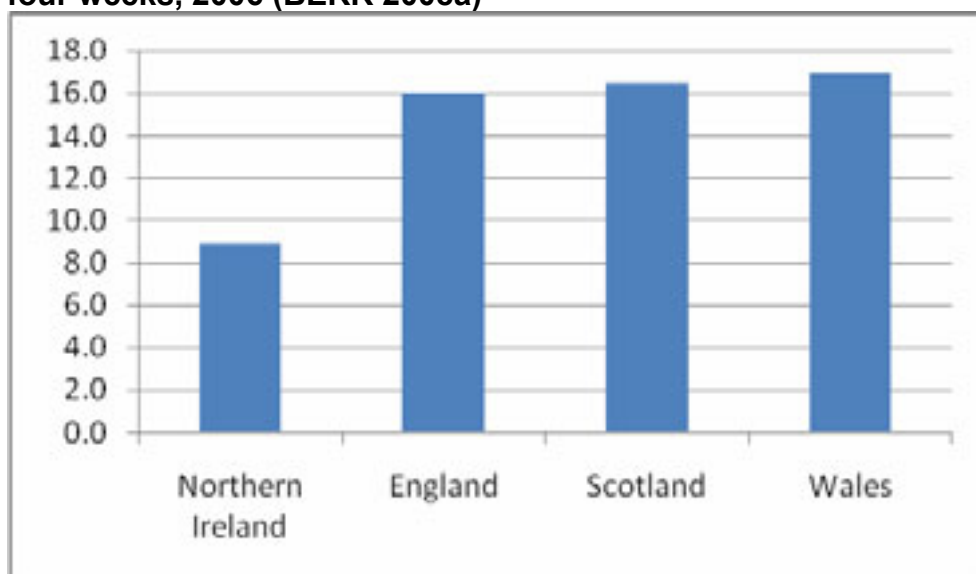
2.13 If skills were the sole driver of productivity the assumption would therefore be that England has a relatively higher skilled population than Scotland, Northern Ireland and Wales. However, the figures for the percentage of the population qualified to Level 2 and 4 (equivalent of SCQF levels 5 and 7) show that Scotland has the highest percentage of qualifications in the UK (see Figure 2.4).

**Figure 2.4 Percentage of the working age population qualified to level 2 (SCQF Level 5) and level 4 (SCQF Level 7) in the UK, 2006 (BERR, 2008a)**



2.14 In addition, Figure 2.5 shows the percentage of the population in the four UK nations that undertook training<sup>4</sup> in the last four weeks (based on 2006 data)<sup>5</sup>. The graph shows that both Wales and Scotland invested proportionately more in training in the workplace than England. Working on the assumption that training should impact on productivity (and taking out any questions on the nature, quality and duration of the training), the figure suggests that although the nations of the UK have a qualified workforce and are investing in training for that workforce, their efforts are not reflected in the productivity of their respective nations.

**Figure 2.5 Percentage of employees receiving job related training in the last four weeks, 2006 (BERR 2008a)**



2.15 There is evidence of a relationship between skills (as measured through qualifications) and productivity (Tamkin 2005), but the evidence shows that it cannot simply be reduced to higher skills equating to increased productivity. Skills is one of the UK Government's five recognised drivers of productivity along with competition, innovation, investment and enterprise and each driver plays a crucial role in productivity growth. When considering the role of skills in productivity growth, the relationship is far more complex than simply skills acquisition.

### **UK Skills Strategies**

2.16 As a result, the four nations of the UK have begun to rethink their approach to skills. We have seen a shift away from simply up-skilling the population, to linking skills to employer need in an attempt to achieve real improvements to productivity.

2.17 The Leitch review of skills (HM Treasury, 2006b), reflected that an increase in the supply of skills alone was not enough to close the productivity gap. As a direct outcome of this the UK Government established the UK Commission for

<sup>4</sup> Job-related training includes both on and off-the-job training.

<sup>5</sup> Previous 4 weeks to the date that the individual completed the survey.

Employment and Skills (April 2008) to raise prosperity and opportunity in the UK by improving and integrating the employment and skills agenda.

2.18 The UK Commission's ambition is to:

*'...benefit employers, individuals and government by advising how improved employment and skills systems can help the UK become a world-class leader in productivity, in employment and in having a fair and inclusive society: all this in the context of a fast-changing global economy' (UK Commission, 2008b online).*

2.19 The four nations have developed national skills strategies recognising the important role skills play in increasing national productivity. The strategies are built on the premise that a) there has been progress in terms of the number of people with qualifications but b) there is a concern that this has not necessarily resulted in increased productivity.

2.20 The solutions in the respective strategies indicate that future skills policy development needs to continue to work towards creating a demand-led skills system. Policy development needs to be linked to business need rather than simply trying to increase the number of people gaining qualifications. In that way, it will be able to better contribute to improving productivity.

2.21 A number of the strategies point towards the integration of employment and skills services as an outcome. The aim is to create an integrated system in which individuals can access employment and training opportunities (both in and out of work) through a single point of contact and where businesses have a voice in the design of future qualifications.

## **England**

2.22 'World Class Skills: Implementing the Leitch Review of Skills in England' (HM Government, 2007), sets out England's plan in terms of skills development. The strategy outlines that although England has achieved much in terms of skills, and is the most productive of the UK nations, it still lags behind other international countries in terms of productivity. The strategy sets out England's ambition to become a world leader in skills by 2020.

2.23 The strategy outlines a number of targets for 2020 including (HM Government, 2007:8):

- 95 per cent of adults to have the basic skills of functional literacy and numeracy
- More than 90 per cent of adults to have gained at least a level 2 qualification (SCQF Level 5); with a commitment to achieve 95 per cent as soon as possible
- To shift the balance of intermediate skills from level 2 (SCQF Level 5) to level 3 (SCQF Level 6) - with 1.9 million more people achieving level 3 (SCQF Level 6) by 2020
- More than 40 per cent of all adults to have a higher education qualification at level 4 (SCQF level 7 and above)

2.24 The strategy aims to create a demand-led skills system where employers are able to determine the current and future course prospectus for qualifications in the UK. The strategy also aims to raise employer ambition and spending on skills.

2.25 The strategy (HM Government, 2007) defines a role for all employers in England to:

*'...take responsibility for the skills of their workforce, by making a Skills Pledge to support their employees to become more skilled and better qualified, with Government help' (HM Government, 2007: 12)*

2.26 The Skills Pledge, launched in June 2007, is a voluntary commitment that employers sign up to in order to support their staff to develop basic literacy and numeracy skills and work towards relevant Level 2 qualifications (equivalent to SCQF Level 5).

### **Wales**

2.27 The Welsh ambition for skills development is set out in 'Skills that work for Wales' (Welsh Assembly Government, 2008). It recognises that Wales lags behind the other three UK nations in terms of both productivity and qualifications. However, Wales had the highest percentage of its workforce undertaking work-based training in 2006 and the plan reflects the progress made in this area.

2.28 The majority of the Welsh plan relates to reforming and improving the existing skills infrastructure, rather than increasing targets for the number of individuals obtaining a certain level of qualification. At the heart of the Welsh strategy is a commitment to integrate employment and skills policy to ensure that qualifications are relevant to businesses and thus impact on productivity.

2.29 In terms of workforce development, the Welsh government is committed to simplifying the skills arena for businesses by: delivering an integrated business support package; expanding the existing Workforce Development Programme; and introducing a new Sector Priorities Fund to align funding to priority sectors.

### **Northern Ireland**

2.30 'Success through skills' sets out Northern Ireland's vision for skills development (DELNI, 2006). The vision is for Northern Ireland to be highly competitive in global terms by 2015, based on high value added jobs, progressive leadership, increased export levels and substantial inward investment. Northern Ireland lags behind the rest of the UK in terms of productivity, percentage of qualifications at Levels 2 (SCQF Level 5) and 4 (SCQF Level 7) and workplace training.

2.31 The strategy recognises this and identifies three types of skills to be developed in Northern Ireland: essential skills (literacy, numeracy and ICT skills); employability skills (team-working, problem-solving and flexibility); and work-based skills.

2.32 Part of the strategy focuses on 'improving the skills levels of the workforce'. The strategy identifies a number of projects comprising: an essential skills programme (literacy and numeracy); careers education, information, advice and guidance, skills for innovation; an adult skills project; management and leadership skills; and Investors in People (IIP).

### **Scotland**

2.33 'Skills for Scotland' sets out the Scottish skills strategy (Scottish Government, 2007a). The strategy builds on the fact that Scotland has a higher level of SCQF Level 5 and 7 qualifications than England (equivalent to Levels 2 and 4) but that it lags behind in terms of productivity.

2.34 The strategy has two main aims: to improve the utilisation of skills in the workplace and to stimulate increased demand for skills from employers. It emphasises the need to focus on a range of essential skills including: personal and learning skills; literacy and numeracy; core skills (including communication); employability skills; and vocational skills that are specific to a particular occupation or sector (Scottish Government, 2007a).

2.35 The actions in the strategy will be delivered by a national body, Skills Development Scotland (SDS) that became operational in April 2008. SDS:

*'...will be a catalyst for real and positive change in Scotland's skills performance. We will help individuals to realise their full potential, we will help employers be more successful through skills development, and we will work in meaningful partnership to enhance Scotland's sustainable economic development' (SDS, 2007 online).*

2.36 SDS employs 1,500 staff across Scotland and projects and services is intended to be delivered through 56 Public Access Centres, 520 Branded Learning Centres, Skills Teams, Websites and Customer Contact Centres.

2.37 However, SDS is presently in its infancy (the Board was formally recruited in May 2008) and has yet to deliver project activity in terms of skills utilisation. There are a number of projects currently under development, including developing future delivery models for the services and projects offered by the organisation. As yet, no impact evaluation exists.

2.38 In addition, the Scottish Government has created a leadership group (September 2008) to champion the skills utilisation agenda within their organisations and across organisations across Scotland. The leadership group has representatives from the public and private sector. The remit of the group is to (Scottish Government, 2008):

- help raise awareness of how the best use of skills in the workplace can have wide ranging benefits for employers (private, public and voluntary), employees and the Scottish economy;
- contribute to the development of a programme of research, including where appropriate member organisations commissioning and co-ordinating research; and

- make recommendations to government, public bodies, employers and unions for further action, including where appropriate member organisations pursuing identified actions.

2.39 The Scottish Skills Strategy sees skills development as a two-stage approach. Firstly, skills must be acquired but secondly, (and perhaps more importantly), they must be effectively utilised in the workplace in order to improve productivity:

*'We need to enable employees to make an immediate positive difference to his or her workplace by applying the skills they have acquired in a productive way. For employers, this means that they should be able to design jobs that make full productive use of the freshly acquired skills of their recruits and closely aligned to business objectives' (Scottish Government, 2007a: 31).*

2.40 Alongside the Scottish Governments skills policies is the Scottish Government Economic Strategy which sets out how the Scottish Government will support businesses and individuals to deliver the following purpose:

*'... to focus the Government and public services on creating a more successful country, with opportunities for all of Scotland to flourish, through increasing sustainable economic growth' (Scottish Government, 2007b:vii).*

2.41 The Scottish Government Economic Strategy has a strong focus on raising the productivity of the Scottish economy through building on the strength of the human capital in the nation. As outlined in the foreword;

*'Scotland has real strength in the most vital factor for modern economies - the human capital offered by our greatest asset, Scotland's people. We need to build on this strength and, importantly, make more of it in broadening Scotland's comparative advantage in the global economy' (Scottish Government, 2007b:vii).*

2.42 The shift in emphasis from skills acquisition (qualifications) to skills utilisation present in the Scottish approach demonstrates that the Scottish Government is currently driving forward this agenda, and has put a clear focus on the utilisation of skills as a lever to greater productivity.

2.43 The remaining administrations in the UK are committed to skills utilisation and are considering how to best ensure that the skills of employees are being utilised to the full in the workplace.

2.44 Each home nation has committed to developing their policy interventions in this area through evidence from a UK project looking at skills utilisation and its impact on productivity and performance across the UK. The UK Commission has been charged to lead this major project.

2.45 The rationale for the project is to understand how to stimulate more effective skills utilisation in the labour market in the future and by so doing enhance UK

productivity and performance. High Performance Working (HPW) will be a key focus of the UK Commission research. The project consists of four elements:

- A literature review
- The design of an employer survey tool
- A set of in-depth employer case studies and
- A review of policies, initiatives and practices which can be deployed to promote HPW and more effective skills utilisation amongst employers in future.

2.46 This literature review is the first element of the project and is being managed and commissioned by Scottish Government in conjunction with the UK Commission. The UK Commission is managing the remaining projects to capture a UK-wide view to the project.

### **Skills utilisation: Context and Definitions**

2.47 The term Skills utilisation is becoming increasingly used in both UK and international literature, and is gaining currency in policy discourse. It can be argued that Skills Utilisation is regaining favour in UK policy as the concepts behind it can be traced back to the work, in the late 1980s, of Soskice and Finegold (1988), which suggested that the UK was locked in a low skills and low quality equilibrium where the skills problem was essentially related, not to issues of skills supply, but inadequacies in skills demand and how skills were being deployed. These ideas were developed further by Keep and Mayhew in the late 1990s.

2.48 In 2001 the National Skills Taskforce reported 'that we must have workforce development strategies that improve the ways skills are used. Too many people say that their skills and talents are not being used fully in their job' (DfEE, 2001). This was supported by the UK Government's Performance and Innovation Unit (PIU) Review of workforce development also in 2001.

2.49 It is important to recognise the context that skills utilisation operates within. Skills utilisation is inter-dependent on the wider economic development policy being pursued by a nation. Therefore, Skills Utilisation policy interventions cannot be pursued in isolation and will need to be embedded in economic development policy to achieve a consistent theory of change towards skills utilisation.

2.50 It is also important for UK policy makers to understand the evidence base related to skills utilisation, including the implementation and impact of different approaches (from the UK and abroad) and current knowledge gaps so that the UK can effectively move forward and address the productivity gap.

### **Definitions of Skills Utilisation**

2.51 In developing this literature review we identified that there is no established definition of skills utilisation. The majority of literature related to the topic of skills utilisation focuses on the management practices and strategies to achieve effective application of skills within the workplace with the overarching aim of raising productivity.

2.52 Literature that has sought to provide a definition of the term skills utilisation includes:

- Skills utilisation forms the vital link between skills acquisition and productivity. It is the ways in which firms use skills that makes them competitive, rather than simply the skills that they have available (James, 2006)
- The combination of skills and the use of skill involve people management practices that enable staff to work smarter rather than harder (Philpott, 2007)
- Improving business performance outcomes by delivering relevant skills that are effectively utilised (Windsor and Alcorso, 2008)
- Enable employees to make an immediate positive difference to the workplace by applying the skills they have acquired in a productive way (Scottish Government, 2007a)
- Skill utilisation means the degree of match or congruence between an individual's skills and the opportunity to use these skills in that individual's work role (Chen et al., 2005)

2.53 We can conclude that despite no established definition, there appears to be a consensus within the literature that skills utilisation is 'ensuring the most effective application of skills in the workplace'.

2.54 It was not the objective of this review to provide a formal definition of Skills utilisation. However, we recognise that further definitions can be developed in order to capture the wider perspectives of skills utilisation, in terms of inputs, processes, outcomes and impacts. In this context a more all-encompassing definition emerging from our research findings would be:

*'Skills utilisation is about ensuring the most effective application of skills in the workplace to maximise performance, through the interplay of a number of key agents (e.g. employers, employees, learning providers and the state) and the use of a range of HR, management and working practices'. Effective skills utilisation seeks to match the use of skills to business demands/needs.'*



### 3 METHODOLOGY AND APPROACH

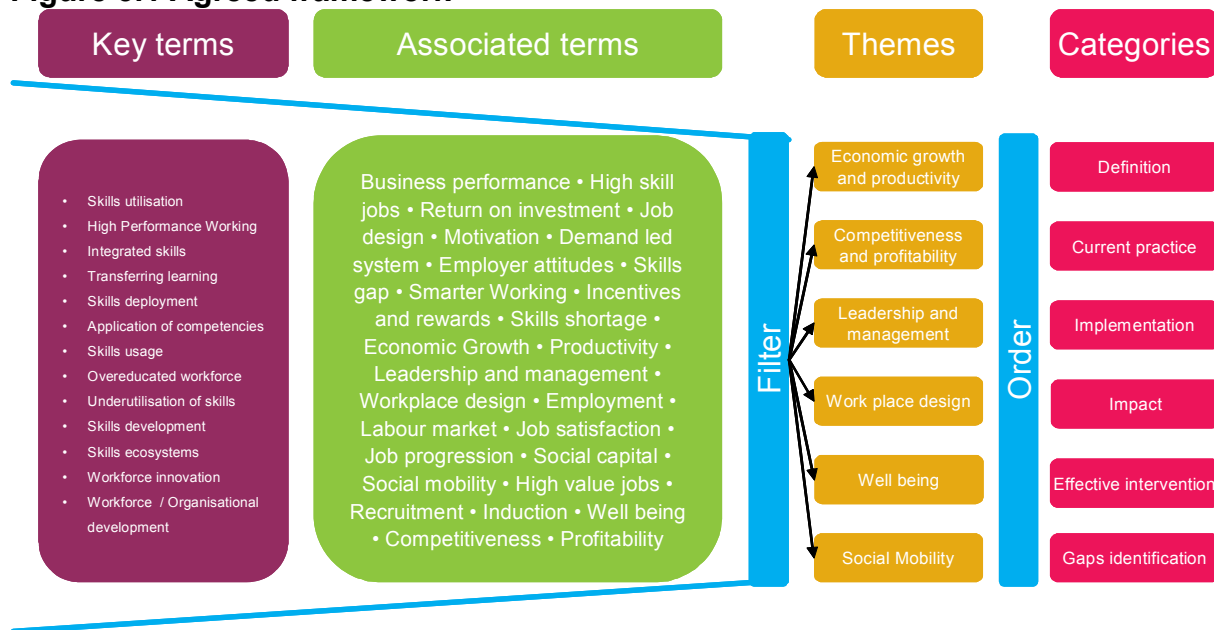
#### Methodology

3.1 The methodology comprised five stages:

##### **Stage one: Establishing key terms and boundaries to the review**

3.2 As there is no established definition of skills utilisation, it was essential to develop a framework to structure the literature review to establish boundaries around the review and ensure relevant evidence could be searched and selected. The agreed framework is provided below.

**Figure 3.1 Agreed framework**



3.3 Literature was included which explores:

- Economic and social issues related to the utilisation of skills
- International and sector literature on the utilisation of skills
- The utilisation of skills of those individuals in work

##### **Stage two: Search and Identification**

3.4 The search and identification of literature was conducted by CFE in partnership with the University of Derby using the databases and websites listed in Appendix B. This was supplemented by grey literature supplied by the Research Advisory Group (RAG). A total of 260 references (publications and websites) were identified which used a combination of one or more of the key terms in addition to one or more of the associated terms.

##### **Stage three: Selection**

3.5 To facilitate the selection of relevant literature from the search we developed a bespoke database including details of all documents identified in the search.

The literature was selected using a prioritisation exercise based on the following criteria:

- The age of the document
- The relevance of the publication based on the information provided in the abstract
- The quality of the evidence (based on assessment of the source)

### 3.6 Literature included were:

- Written in English
- Conducted after 2000<sup>6</sup>
- Concerned with those in work
- Concerned with the utilisation of skills (as opposed to the acquisition of skills)

### 3.7 Literature excluded were:

- Not written in English
- Conducted before 2000<sup>7</sup>
- Concerned those out of work
- Concerned the acquisition of skills

3.8 The search and selection of literature identified 113 relevant references (including publications and websites) for review. The majority of references were generated by the following terms:

- High Performance Working (HPW) / Smarter working (a majority of the literature fell here)
- Economic growth and productivity
- Skills development
- Business performance
- Workplace Design

3.9 A majority of literature identified was from UK and US sources; however, more than 30 per cent of the references were also identified from international evidence. Evidence from nine countries provides relevant information which is drawn on throughout the report including: Australia, Finland, Ireland, Malaysia, New Zealand, Norway, Singapore, UK and USA. About a quarter of the publications included studies of a specific sector or industry. The majority of literature relating to employers focussed on large employers with less evidence relating to SMEs.

3.10 A summary table with the spread of literature selected is provided at Appendix C.

---

<sup>6</sup> Our original search and selection only identified literature conducted after 2000. However, for some programmes or specific examples, the literature conducted after 2000 did not provide enough information so in some cases we have included literature published before 2000. These documents were referenced in the literature originally selected and have only been included where they were from reliable sources and added real value to the review.

<sup>7</sup> Ibid.

### ***Stage four: Categorisation***

3.11 The literature selected was then categorised using a bespoke classification grid into the following areas: definitions, implementation and current practice (including policy interventions) and impact. The grid included relevant information for each publication including: author, country, date, research questions tackled, research method used, outcomes and/or key findings.

### ***Stage five: Synthesis***

3.12 This final important stage allowed for interpretation of the literature to fully assess available evidence on the topic of skills utilisation. This stage was the basis for development of the report structure, content, identification of gaps and informed our suggestions for areas for further exploration presented in Chapter 8.

### **Approach**

3.13 In order to make sense of a disparate range of literature, much of which does not use the term skills utilisation, but refers to issues related to the topic, we have categorised the literature on two main variables:

- The agent/s for delivery
- The driver for delivery

### ***Agent for delivery***

3.14 Within the literature, approaches to what can be termed skills utilisation range from those who are wholly concerned with an individual workplace and either the role of the employer, or the employer employee interface within that workplace to improve business performance, to those who take a broader perspective seeing skills utilisation as raising an economy's productivity and achieving this through the interplay of a number of agents including employers, employees, learning providers and the state in creating an overall environment for effective skills utilisation.

### ***Driver for delivery***

3.15 The literature can also be categorised into those approaches or activities that are driven by the market; skills utilisation is led by an employer within their workplace to enable them to deliver their business strategy to meet market demand. This is compared to other approaches; driven by state intervention in an attempt to stimulate and achieve effective skills utilisation at an individual workplace, industry or national level.

### ***Categorisation***

3.16 From the literature reviewed across nine main countries it is possible to plot the approaches taken on the two variables. The shading reflects the quantity of literature identified across these different categories – with the darkest areas reflecting the largest amount of literature, not necessarily the most activity.

**Figure 3.2 Categorisation**



3.17 As shown above, the evidence falls into three main categories or approaches to skills utilisation:

- a. The employer, or employer and employee are seen as the agents for delivery of skills utilisation and the approach is driven by the market (employer) played out within the workplace. This approach we have termed the market driven workplace approach and it is discussed in Chapter 4.
- b. Where the employer or employer and employee are seen as the agents for delivery and activity, however, within a country the state have taken a lead role in driving skills utilisation within the workplace, we have termed this the state driven workplace approach and it is discussed in Chapter 5.
- c. Where countries have taken a broader perspective of skills utilisation to raise productivity, involved active roles for the state, employer, employee and often learning providers driven by the state at a national level to drive change at national industry and individual workplace level, we have termed this approach Holistic and it is discussed in Chapter 6.

3.18 The following three chapters discuss each of the three approaches in detail; tables 3.1 and 3.2 provide the main characteristics of each approach at a glance.

**Table 3.1 Implementation of the approaches at a glance**

	Market driven workplace	State driven workplace	Holistic
Focus	Organisation	Organisation	Industry / National
Driver	Business performance	National productivity	National prosperity
Model	HPW Learning transfer	National strategy Workplace projects (HPW) Fund	National strategy (combining acquisition and utilisation) Stakeholder engagement Sector wide projects Fund
Enablers	Leadership and management Employee trust	Buy-in – employers, employees	Buy-in – all stakeholders

**Table 3.2 Impact of the approaches at a glance**

	Market driven workplace	State driven workplace	Holistic
Take up	Low	No evidence	No evidence
Outcomes - economic	Profit Sales Productivity	<i>Productivity</i>	<i>Use of resources Improved innovation</i>
Outcomes - social	Job satisfaction Staff retention / motivation Work intensification	<i>Well-being Working conditions Equality and diversity</i>	<i>Improved collaboration</i>
Limitations	Employee buy-in	Buy-in Dissemination	Broad approach Measurement

## Quality assurance

### **Quality assurance of the method**

3.19 The project scope was wide ranging and time limited, therefore we aimed to maximise the quality assurance at each stage of the process. In particular, this was achieved through:

- a. The framework of key terms and associated terms agreed by the Research Advisory Group (RAG) and revisited by CFE following the identification and selection of documents.

- b. The high quality of the databases selected for the search recognised by academia and industry. The vast majority of materials and journals were subject to rigorous quality assurance criteria before inclusion (including peer review).
- c. Drawing on CFE's knowledge and expertise within the policy area for the more general searches (websites) to ensure that the documents selected were from reliable and relevant sources.
- d. The partnership approach to the document search process between CFE and the University of Derby. Our combined experience of both the search and selection process, and expertise and understanding of the policy area, allowed us to undertake the search in a rapid and efficient manner ensuring the best quality results within the time allowed.

### ***Quality of evidence***

- 3.20 The literature identified included websites and publications; the majority of which were publications. Our rigorous and robust approach to searching, identifying and selecting literature has ensured that any literature included in this review is from recognised sources.
- 3.21 Furthermore, in the review where the information is available, we highlight the type of evidence (i.e. anecdotal, secondary data analysis, case studies) and characteristics of the research (i.e. sample size, frequency).
- 3.22 Qualitative and quantitative methodologies were identified, ranging from econometric regressions and factor analysis to case studies and evaluations.
- 3.23 The vast majority of the documents identified were previously published and the RAG provided CFE with some grey literature that was also included.
- 3.24 Although the term 'skills utilisation' is emerging in the policy discourse, the majority of the documents identified for the literature review came from academic and/or research publications.

## **4 MARKET DRIVEN WORKPLACE APPROACH**

### **Summary**

This approach to skills utilisation focuses on implementing change in individual workplaces. The literature includes evidence of two specific practices that employers have used to achieve improved skills utilisation in the workplace: Learning Transfer; and High Performance Working (HPW).

Evidence of the implementation and impact of Learning Transfer is limited, however, there are two notable examples (from the US and UK health sectors). Whilst these two examples appear to show some success, wider application is not evident in the literature.

HPW dominates the literature on market driven workplace approach to skills utilisation. Evidence shows that organisations implement HPW in response to a market need (increased competition, poor profit performance) and where they believe that the skills of their workforce are an important driver of business performance.

There is no 'one' best set of practices, rather it is the crucial role of the business strategy that determines which particular practices are implemented in response to specific organisational needs.

Overall, take up of HPW by UK employers has been limited; ignorance, inertia, inadequacy and impediment are given as the main reasons for a lack of implementation. Evidence shows that sector, size and country of origin influence whether an organisation implements HPW, with more evidence of HPW having been adopted in larger organisations; the manufacturing sector; and in foreign owned organisations.

The literature identifies leadership and management and employee trust and motivation as core factors that are both the main enablers of skills utilisation and the focus of HPW practices (HPWP) within organisations.

A number of economic and social benefits to employers and employees have been identified including increased business performance, job satisfaction and motivation.

### **Introduction**

- 4.1 The practical application of skills utilisation began at the workplace level, driven by the employer as a mechanism for delivering business objectives in terms of increased business performance.
- 4.2 This chapter discusses the implementation and impact of these approaches to skills utilisation. The chapter draws on available literature, the majority of which is from the US and UK (although examples are not limited to these countries).
- 4.3 The market driven workplace approach to skills utilisation focuses on individual workplaces and the employer/employee interface to improve performance.

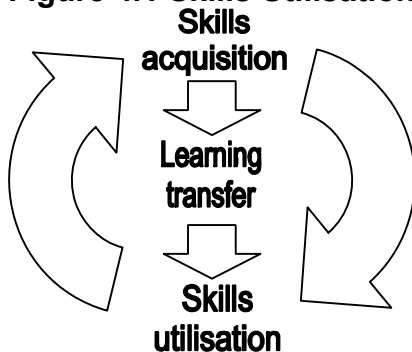
Approaches range from employee-centric to employer-led. All see the problem residing in the workplace and the need to align business strategy and the skills of the workforce to raise organisational performance.

- 4.4 Business performance is defined by various factors, with one facet being 'workplace productivity', which refers to how firms can utilise labour and skills, innovation, technology and workplace organisation to improve the quantity and quality of their output.
- 4.5 The literature includes evidence of two models employers have used of achieving skills utilisation in the workplace: Learning Transfer and High Performance Working (HPW). The majority of the literature in this area relates to HPW. This Chapter provides an overview of both approaches in terms of implementation and impact.

### Learning Transfer

- 4.6 The learning transfer framework was developed by James (2006) with the aim of examining the process of creating the conditions in which effective skills utilisation takes place. This model focuses primarily on effective employer interventions as a means to create the conditions in which effective skills utilisation can take place:

**Figure 4.1 Skills Utilisation Model, James (2006)**



- 4.7 The model has three stages (James, 2006):

- Skills acquisition - whereby individuals acquire skills either formally (e.g. qualifications) or informally (e.g. in-work mentoring)
- Learning transfer - which relates primarily to interventions by employers to ensure that workplace conditions are suitable for individuals to be able to effectively use their existing skills and develop new skills in the workplace
- Skills utilisation - the point at which acquired skills are being utilised in the workplace

- 4.8 There is limited evidence of the practical implementation of Transfer of Learning compared with HPW practices. Rambou commented that there is also a lack of evidence on strategies that aim to maximise the utilisation of skills developed through formal training (Rambou, 2005).

- 4.9 Two examples from the health sector have been identified in the literature:



- The Transfer of Learning Matrix' within US health care sector (Prime II, 2002)
- The Skills Escalator within the NHS in the UK (McBride et al., 2006)

### ***Transfer of Learning Matrix***

#### *Implementation*

4.10 The Transfer of Learning Matrix was developed by Prime II to support the transfer of learning amongst US health care workers. The aim is for learners to transfer 100 per cent of any new knowledge and skills acquired through training for their jobs, resulting in a higher level of performance and an improvement in the quality of services at their facilities and increased productivity.

4.11 The Transfer of Learning process is an interrelated series of tasks performed by supervisors, trainers, learners, co-workers and sometimes others (e.g. government regulators, clients, etc.) before, during and after a learning intervention, in order to maximize transfer of knowledge and skills and improve job performance (Prime II, 2002). The process is usually represented in a 'transfer of learning matrix' that outlines the specific tasks performed by each of the above stakeholders.

4.12 Examples of the suggested practices within the matrix include:

- Supervisors – communication with trainers about the learning intervention (pre-learning), participation in, or observation of, training (during learning) and the completion of post training debriefing with learners and co-workers (post-learning)
- Trainers – the dissemination of the course syllabus, objectives and pre-course learning activities in advance (pre-learning), the provision of work-related exercises and appropriate job aids (during learning) and the completion of follow-up activities in a timely manner (post-learning)
- Learners – participation in needs assessments and planning (pre-learning), immediate and clear feedback (during learning), meeting with supervisors to review action plans (post-learning)

4.13 To accompany the matrix, action plans are developed that describe the steps that the stakeholders will complete to help maximise the transfer of learning.

#### *Impact*

4.14 The Transfer of Learning Matrix is a guide for the implementation of the Transfer of Learning and no evidence was identified on the practical implementation and impact of this approach. However, research (Prime II 2002) shows that the following actions are essential to the transfer of learning process:

- Exploring and understanding the relationship of knowledge and skills to the other factors that affect performance at the work site
- Establishing and maintaining structures that support desired performance (e.g. using non-training interventions to influence other factors that affect performance,

such as constructive feedback, provision of necessary equipment and supplies, clear protocols, etc.)

- Working collaboratively with all individuals who can support (or might hinder) desired on-the-job performance
- Using action plans or similar devices to set and maintain clear performance objectives and expectations and to document progress and challenges
- Creating a supportive environment in which all workers appreciate their potential to improve services by acquiring new skills and knowledge

4.15 The Transfer of Learning Matrix is a positive example of a framework that organisations can put in place to ensure that new skills are effectively utilised. Importantly, the matrix identifies the roles that all stakeholders within the training process can play before, during, and after learning.

### ***The Skills Escalator***

#### *Implementation*

4.16 The NHS Modernisation Unit used a concept called the Skills Escalator in an attempt to raise productivity by implementing an innovative workforce development strategy with the idea of attracting and supporting new entry-level recruits, whilst simultaneously encouraging workforce flexibility by developing staff to take on delegated tasks or progress into higher level roles.

4.17 The Skills Escalator was outlined in the NHS Plan (Department of Health, 2000). It focuses on developing the skills of the healthcare workforce for four suggested purposes:

- plugging skills gaps by aiding staff recruitment and retention
- offering model careers by providing learning and development opportunities for all staff
- improving productivity and service delivery through new and/or expanded roles
- widening participation in employment for disadvantaged or socially excluded groups through offering support and training to acquire 'starter' jobs

4.18 Examples of good practice of implementation of the Skills Escalator have been identified by employees within the programme. Examples include (McBride et al., 2006):

- the promotion and marketing of training opportunities available
- support for learning at all levels through well structured personal development plans and reviews
- the linking of training to career opportunities

#### *Impact*

4.19 A review of the Skills Escalator project within the NHS identified that the key enabling factors in implementing an innovative workforce development strategy are (McBride et al., 2006):

- Robust relationships with learning providers to ensure quality of the learning experience for participants
- Line manager commitment to encourage staff to take up learning opportunities and use their new skills in the workplace
- Support from union representatives and peers to encourage learners taking formal qualifications for the first time
- Strategies developed with an appreciation of workforce capacity and capability in relation to organisational needs

4.20 An evaluation of the Skills Escalator project conducted in 2005, presented evidence about its impact (McBride et al., 2005). However, it was mainly anecdotal, based on individual experiences and with no general conclusions drawn from it.

4.21 The first outcome evaluated was the extent to which individuals have made career progression into new roles. The analysis of the results highlighted that in most of the cases the progress was found at the bottom levels of the escalator. No clear examples of people moving into the top two levels of the model were identified (McBride et al., 2005). However, impacts on career progression may have not yet been realised due to the short period of time the project has been running.

4.22 At an organisational level, the main indicators that the skills escalator impacted on were recruitment and staff retention. However, the evidence is again anecdotal. The arguments are: a reduction on recruitment costs will be achieved through the alternative route for recruitment; and the opportunity to develop will improve the staff retention. The lack of performance indicators does not provide any conclusive and specific evidence in this regard (McBride et al., 2005).

## **Conclusion**

4.23 The concept of the Learning Transfer and specific procedures, such as the Learning Transfer Matrix and the Skills Escalator, are examples of practices that organisations can implement to encourage employees to make full use of their skills. Whilst there appears to be some success where this approach has been implemented, there is no evidence of wider take up of the approach or dissemination of what works.

## **High Performance Working**

4.24 High Performance Working (HPW) is the predominant market driven workplace approach to skills utilisation. HPW is a theoretical concept designed as an umbrella term to describe the use of practices in organisations (predominantly) in the US and UK in the 1980s that drew on ideas from Japanese management practices and North European concepts of job redesign in an attempt to achieve holistic organisational change (Lloyd and Payne, 2006).

## **Definitions of HPW**

4.25 The range of definitions of HPW varies across the literature. The majority relate specifically to a model of working that is employee-centric with the aim to increase business performance through investing in staff. Some definitions are very broad:

*'...simply work practices that can be deliberately introduced in order to improve organisational performance' (Sung and Ashton 2005:3).*

4.26 The majority refer to a more specific set of practices, for example:

*'High performance working is a distinctive approach to managing people at work that raises productivity while also improving the well-being of employees' (Guest, 2006:3).*

*[High performance working is] '...the achievement of high levels of performance, profitability and customer satisfaction by enhancing skills and engaging the enthusiasm of employees' (ILO, 2000 online).*

*[High performance work organisations are] '...those organisations that are moving towards a flatter and less hierarchical structure where people work in teams and with greater autonomy, based on higher levels of trust, communication, employee participation and learning' (OECD 2001:15).*

4.27 In an organisation, HPW manifests itself where an organisation implements one or more bundles of activity, described as High Performance Working Practices (HPWPs) (see Wood, 1999; Inchiowski and Shaw, 1995; Sung and Ashton 2005) that, together, form an:

*'...internally consistent and reinforcing work environment' (Sparham and Sung, 2007:3).*

4.28 HPW differs from the learning transfer model in two ways. Firstly, the learning transfer model is concerned primarily with individual interventions rather than creating a culture where skills are more efficiently utilised. Secondly, the individual is expected to play a more active role in the learning transfer model.

4.29 The assumption is that those organisations exhibiting HPWPs are more likely to achieve better utilisation of the skills of their workforce and therefore improve business performance.

## **Why organisations implement HPW**

4.30 The majority of evidence suggests that organisations implement HPW because they believe that the skills of their workforce are an important driver of business performance; including productivity (e.g. Sung and Ashton, 2005). For example, Xerox introduced practices determined to be HPW in response to the competition they faced from Japanese firms in the 1980s (Ashton and Sung, 2002). Much of the available case study evidence points to poor profit

performance (see Muldrow et al., 2002), market pressures (see Mason, 1999) and the need to reduce costs (see Lloyd, 2000) as the trigger for implementation.

- 4.31 Much of the evidence on the use of HPW practices concludes that the range and manner of HPW practices adopted depends on a) the specific performance goals of the organisation and b) the industrial context (Sung and Ashton, 2005). There is no 'one' best set of practices, rather it is the crucial role of the business strategy that determines which particular practices are implemented in response to specific organisational needs.

### **Implementation**

- 4.32 Because HPW is a largely theoretical construct designed to describe observed organisational behaviour, academics struggle to agree which organisations are implementing HPW or on a definitive list of HPWPs that an organisation must implement in order to be deemed HPW:

*'Not only is there no clear definition of the model, but there is a fundamental lack of agreement as to the specific work and personnel practices it is thought to comprise, not to mention the meanings that can be ascribed to constituent practices such as team working' (Lloyd and Payne, 2006:160).*

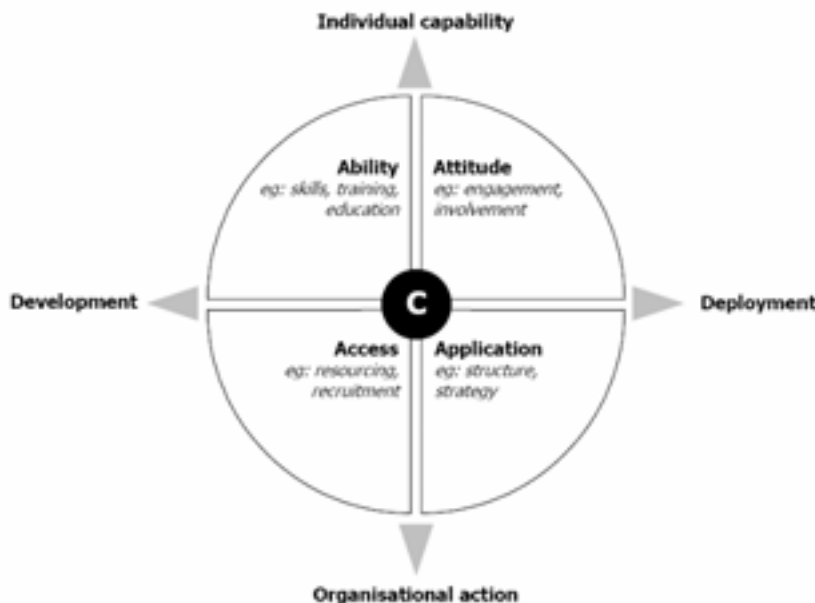
- 4.33 Different studies use different combinations. For example, Ashton and Sung (2002) map out a list of 35 key practices; Guest outlines only 18 (Guest 2000); and the Skills for business survey of employers includes only 16 (SSDA, 2006). This makes defining a consistent measurement on the take up of HPW problematic (Guest, 2000).
- 4.34 In addition, organisations rarely use the term HPW or HPWPs or recognise that their actions could be described as such. Sung and Ashton (2005) found that in 10 case studies of UK organisations, employees felt rather than implementing HPW, they were implementing what they saw as 'common sense good practices' (Sung and Ashton, 2005:7).
- 4.35 Ashton and Sung have carried out a large amount of the case study research related to the implementation of HPW within organisations. Although they agree that no definitive list of practices exists, there is consensus that employee involvement and participation are an essential component of HPW and they note that HPW comprises a set of complementary work practices, covering three broad categories; (i) High Involvement, (ii) Human Resource Practices and (iii) Reward and Commitment. A description of these categories and practical examples are shown in the table overleaf (Sung and Ashton, 2005).

**Table 4.1 Examples of HPW practices**

Category	Description	Examples
High Involvement	High employee involvement practices encourage a much greater level of trust and communication between employers and employees through involving them more in the organisation	Circulating information on organisational performance and strategy Providing all employees with a copy of the business plan and target Internal staff surveys Staff suggestion schemes Total Quality Management Self-managed or self directed teams Cross-function teams
Human Resource Practices	Specifically targeted to create a greater depth of human capital investment and skill formation within the organisation	Annual appraisal Formal feedback on job performance from superiors/employers Reviewing vacancies in relation to business strategy Formal assessment tools for recruitment Annual review of employees training needs Training to perform multiple jobs Continuous skill development Business Excellence Model
Reward and Commitment	Practices to facilitate a greater sense of belonging and commitment to the organisation	Performance pay for some employees Performance pay for all employees Profit-sharing for some employees Profit sharing for all employees Share options Flexible job descriptions Flexible working Job rotation Family friendly policies

- Furthermore, Tamkin (2005) developed a framework to capture and explore the impact of HPW practices on individual activity. The 4A model of capability is built on two dimensions: development and deployment of human capability; and individual and organisational capability.

**Figure 4.2 The 4A model of capability, Tamkin (2005)**



4.36 By combining the two dimensions, four quadrants (or factors) were identified, each shaping the human capability within an organisation (Tamkin 2005):

- Access – the effective resourcing of roles in the organisation
- Ability – the skills of the workforce
- Attitude – the engagement, motivation and morale of the workforce
- Application – the opportunities available to ensure skills and motivation are effectively applied

4.37 Skills utilisation falls within two quadrants:

- a. 'Attitude' (employee's capability) – including policies such as improvement of engagement, the way people are treated at work, the role of the line manager, the level of reward people receive and communication (Tamkin 2005).
- b. 'Application' (employer's capability) – including skills engagement, employees' motivation and utilisation through jobs, the resources available and the strategy that the organisation pursues (Tamkin 2005).

4.38 Much of the evidence on the use of HPW practices concludes that the range and manner of HPW practices adopted depends on a) the specific performance goals of the organisation and b) the industrial context (Sung and Ashton, 2005). There is no 'one' best set of practices, rather it is the crucial role of the business strategy that determines which particular practices are implemented in response to specific organisational needs.

4.39 In practice, organisations implement those practices that they deem to be of the most relevance to their organisation and that will deliver the greatest perceived return in terms of business performance.

### ***Current practice***

4.40 Evidence of the implementation of HPW spans a wide range of practices that organisations implement. The literature is mainly from UK and US organisations, where more research was identified. The following section summarises current activity in terms of take up of HPW and differences by country, business sector and size. We also discuss the factors that have been shown to contribute to the effectiveness of HPW.

4.41 A range of literature looks at the implementation and impact of HPW organisations in the UK and the USA (for example, see Kling 1995, Ichniowski et al. 1997, Becker et al. 1998 and Applebaum et al. 2000).

### ***Take up***

4.42 There was limited evidence available in terms of the take up of HPW with no literature identified attempting to compare the take up of HPW across different countries. A number of surveys identify the take up of HPW amongst employers in the UK and Ireland (see Chapter 7 Measurement: CIPD survey (UK), SFBN employer survey (UK) and the Human resources and general management survey (Ireland)).

4.43 The evidence suggests that take up by employers in the UK has been low (CIPD and EFF, 2003). Further research from WERS (2004), concludes that there has been no sign of the spread of HPW organisations within the UK (since 1998) by citing the little change in the incidence of team working, the proportion of staff that are multi-skilled or the percentage of workplaces given autonomy to appoint their own leaders (6%) (Philpott, 2007).

4.44 Several authors have suggested reasons why take up has been low in the UK. Philpott (2007) argues that there is an 'implementation gap' due to:

- Ignorance – from heads of organisations as to the potential advantages of HPW and what it entails
- Inertia – heads of organisations feel that the necessary change is too costly or difficult or the benefits are uncertain when compared to the tried and tested ways of working
- Inadequacy – may be a lack of information on what should be done and a lack of advice on how to do it
- Impediment – something stopping organisations implementing HPW, such as a lack of necessary management and workplace skills or regulations halting any changes to working practices

4.45 Other authors (e.g. CIPD and EFF, 2003) also point to a lack of trust between management and employees which can make it difficult to implement HPW and the 'attitude to change' within the organisation as being a major barrier to implementation.

4.46 The evidence shows that take-up of basic HPWPs is generally higher than innovative HPWPs. For example, an EEF UK study of manufacturers, 'Catching Up with Uncle Sam', shows the majority of firms use basic practices such as output monitoring or individual performance appraisal. However, take-up of more imaginative practices such as employee involvement, team/individual incentives and profit-based pay is significantly lower (IPA, 2007).

4.47 This evidence has led authors to conclude that there is little to suggest that UK organisations in general are making rapid progress in implementation (Kersley et al., 2005).

### ***Differences in implementation by contextual factors***

4.48 The evidence shows that the implementation of HPW and HPWPs differs by certain contextual factors. The most prevalent are: sector; business size; and the organisations country of ownership.

#### ***Sector***

4.49 The influence of sector in the implementation of HPW is a reoccurring theme in much of the literature. A study in the UK by Sung and Ashton (2005) showed that different practices or bundles of practices were likely to be appropriate in different sectors:



*'Our findings suggest that the choice of which bundle or bundles of practices to use in order to achieve a given organisational outcome or objectives is influenced by the type of sector in which the organisation or company is operating. In other words, some of these bundles are more effective in some industrial sectors than others' (Sung and Ashton, 2005:15).*

- 4.50 Sung and Ashton (2005) found that companies within the financial services sector made intensive use of financial incentives (reward and commitment practices), whereas in the manufacturing and business service sectors more use was made of high involvement practices.
- 4.51 Case study work by Sung and Ashton (2005) shows that the decision on which HPW practices to implement was influenced by the dominant business objective. For example, in sectors where innovation and creativity was important as a driver of productivity, companies implemented practices that created high levels of trust to enable the sharing of ideas. In these companies, practices such as teamwork and informal sharing of ideas, support for learning and constant questioning of systems designed to enhance skills are common.
- 4.52 Much of the evidence in the US refers to the introduction of HPW in large private sector manufacturing firms. However, research by Way (2002) identifies that the implementation of HPW systems amongst small US firms are evident and are associated with key success outcomes such as lower workforce turnover and higher perceived productivity (Way 2002).
- 4.53 Practical examples of the implementation of this approach can be seen in the case study work carried out by Muldrow et al. (2002) into the implementation of HPW within the US Mint and the EPA region VI, which showed these organisations, had implemented a range of practices with an emphasis on leadership, communication and training.
- 4.54 A range of evidence (see Ashton and Sung, 2002; Osterman, 1994; Weinstein and Kochan, 1995 and Boxall and Purcell, 2000) has pointed to the fact that those organisations that were most likely to adopt HPW are in those sectors exposed to international competition, more advanced technology and where a strategy of innovation and differentiation of products on the basis of quality and service is required.

#### *The manufacturing sector*

- 4.55 There is a clear focus on the uptake of HPW in the manufacturing sector. However, it is unclear whether this is true in reality or a reflection of the fact that the majority of the influential studies have been conducted in manufacturing (e.g. Appelbaum et al., 2000; MacDuffie, 1995) or using large-scale national or cross-industry surveys of relatively large workplaces (e.g. Delaney and Huselid 1996; Huselid 1995; Ramsay et al. 2000).

### *The service sector*

- 4.56 Work by Harley et al. (2007) looked at HPW within the Australian Service sector and suggested that HPW practices are no less applicable to low-skilled than high-skilled workers and that low-skilled workers were no less likely than high-skilled workers to benefit from HPW practices.
- 4.57 In addition, a recent survey of workplaces in Ireland has shown that organisations within the Service sectors reported the most extensive use of HPW (NCPD, 2008). In particular, implementation was highest in the Personal Services, Transport and Communications and Financial Services sectors. The sector with the lowest uptake of HPW was Health Services.

### *The public sector*

- 4.58 There is limited evidence of the existence of HPW in the public sector. However, examples were identified, for example, in the US, case study work carried out by Muldrow et al. into the implementation of HPW within two major public sector organisations, the US Mint and the EPA region VI (Muldrow et al., 2002). Evidence showed these organisations had implemented a range of practices with an emphasis on leadership, communication and training.

### *Business Size*

- 4.59 Much of the available evidence examines HPW in large firms. Some literature argues that HPW is primarily a large firm concept and has not been translated into terms suitable for small firms. Edwards (2007) argues that the take up of HPW within small firms across Europe is limited. However, it is not the case that HPW is not relevant to small firms just that the practices are often too formal and structured for them to implement Edwards (2007).
- 4.60 Further work by Ashton and Sung confirmed that HPW practices apply equally to SMEs. Case study research in the United Kingdom, Thailand and China shows that where SMEs differ is that they do not have the formal procedures characterised by larger companies and depend far more on the driving force of the head of the organization in using high performance working practices (Ashton and Sung, 2002).
- 4.61 This is backed up by research by Way who identified the implementation of HPW systems amongst small US firms was associated with key success outcomes such as lower workforce turnover and higher perceived productivity (Way, 2002).

### *Country of ownership*

- 4.62 There is limited research on the influence of country of ownership on the take up of HPW. However, CIPD and EEF (2003) research shows that US-owned firms in the UK are making greater use of all forms of workplace initiatives compared to their UK-owned counterparts.
- 4.63 A study by O'Connell in Ireland showed the link between country of ownership of an organisation and the implementation of HPW. The results showed that in

Ireland, foreign-owned companies made relatively greater use of HPW practices particularly in areas such as staffing, training, performance management, communication and participation (IPA, 2007).

### ***Core factors to the implementation of HPW***

4.64 The literature identifies a range of core factors that facilitate the implementation of HPW in the workplace. The main factors which we have identified from the literature are: leadership and management; and employee trust. While both of these factors are prerequisites to implement HPW they also appear as the focus of HPWPs to lever there increased existence within organisations.

#### *Leadership and Management*

4.65 Leadership and management plays a key role in the implementation of HPWPs and is a recurring theme in the literature. Research from both the UK and US has shown that a strong and active commitment from senior management is essential if HPW is to be successfully implemented (see Philpott 2007, Sung and Ashton 2005, Ashton and Sung 2002).

- a. Firstly, the organisation must have strong executive leadership to ensure that HPW is part of the business strategy (see Philpott, 2006, Sung and Ashton, 2005).
- b. Secondly, managers play a vital role in the process: communicating; being open to allow employee concerns to be raised and discussed; allowing people space to influence how they do their job; coaching; guiding; recognising performance; and providing help for the future (James, 2006).
- c. Thirdly, managers must ‘...manage people at work rather than merely administer them’ (Philpott, 2007:164).

4.66 As well as being enabling factors to adopting HPW, organisations also implement a range of HPWP to create leadership within their organisation. Case study work showed the use of HPWPs such as self managed teams to create leadership at all levels which, in turn, leads to employee autonomy, discretion and encourages development and use of skills (Sung and Ashton, 2005).

#### *Employee trust and motivation*

4.67 Employee trust and motivation are important for the effective implementation of HPW. Philpott (2007) summarises much of the evidence and highlights the importance of organisations creating an environment in which people seek to acquire and share appropriate knowledge and skills (appropriate meaning, skills that are focussed on achieving explicit organisational goals). Philpott goes on to argue that:

*‘What organisations need from the people they employ is voluntary commitment to behave and deliver in ways that go far beyond the traditional requirements of the job description. To achieve this employees must be equipped not only with the necessary ability to do*

*the job, but they must also have sufficient motivation and opportunity to apply that ability to deliver what the organisation wants from them' (Philpott 2007:166).*

- 4.68 There are a number of practices that can be implemented to improve trust, examples include: opening the financial accounts to unions; setting up special e-mail accounts to allow all employees to ask questions of directors and get a personal reply; employee workshops; and the continued flow of information on business strategy and values.
- 4.69 A number of levers to increase employee motivation are highlighted from case study work. These range from financial incentives in the form of profit sharing and performance related pay (Sung and Ashton, 2005) to non-pay rewards such as, mentions in a newsletter, trips to conferences and management taking time out to thank employees for their contributions (Ashton and Sung 2002).

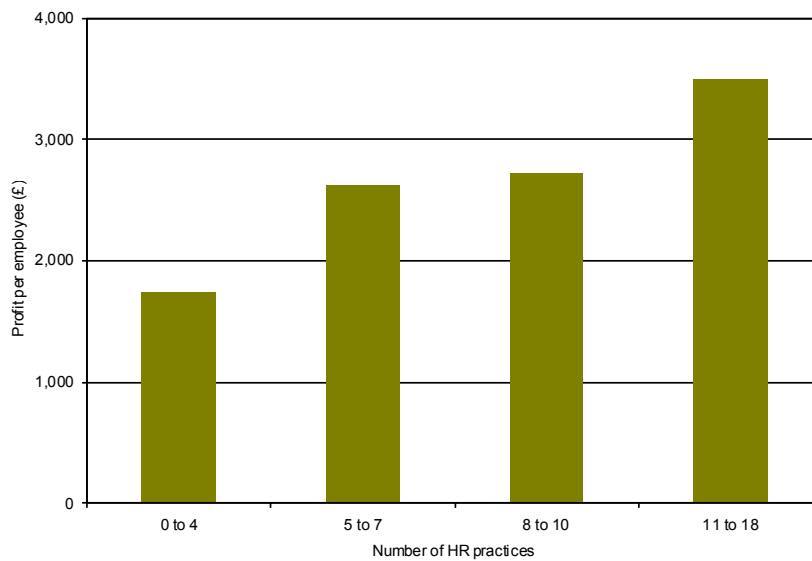
### **Outcomes of HPW**

- 4.70 Overall, the literature suggests that there are two main types of outcome from the implementation of HPW. The first type is 'economic' outcomes and is mainly related to an organisation's business performance. The second type, social outcomes, involves variables linked to well being, satisfaction and perception.

#### *Economic outcomes*

- 4.71 A number of documents have been devoted to researching the positive impact that HPW can have on economic outcomes within the organisation.
- 4.72 A summary of the outcomes is presented below:
- a. **Profits** – Tamkin et al. (2008) found that there was a positive relationship between HPWPs and profits. They developed the A4 model (discussed in greater detail in chapter 7) which measures the use of HPWPs in organisations and assigns them a score. From their research, they suggest that a 10 per cent increase in the combined index score would equate to: an increase in gross profits per employee of between £1,083 and £1,568; an increase in operating profit per employee of between £1,139 and £1,284; and an increase in profit margins per employee of between 1.19 per cent and 3.66 per cent (Tamkin et al. 2008).
  - b. **Profit per employee** – Guest (2006) showed that the greater the number of HPW practices in place, the higher the profit per employee (see figure 4.3).

**Figure 4.3 Human resources practices and profit per employee**



- c. **Sales** – Tamkin et al. (2008) show that an increase of 10 per cent of the combined index score of the 4A model of capability would equate to a 0.09 per cent increase in sales growth per employee.
- d. **Productivity** – Tamkin et al. (2004) presents a useful summary of relevant literature showing tangible results of HPW on productivity, some examples include<sup>8</sup>:
- Macy and Izume, 1993 (meta-analysis) and Ichniowski, et al., 1994 (specific to the steel industry) proved that changes in work practices such as job design, team work, incentives, training and communication were associated with productivity improvements of up to 40 per cent
  - Ichniowski, 1990 (focused on manufacturing) and Cutcher-Gershenfeld, 1991 (focused on manufacturing) demonstrated that the implementation of systems based on motivation, problem solving, worker autonomy, job design and training are associated with higher productivity
- e. **Share price** – in 1994 Easton and Jarrell identified that implementing a system based on training, team work and redesign of the organisational structure can deliver a 20 per cent higher share price after six years (Tamkin et al., 2004).
- f. **Earnings** – in 1999 The OECD found evidence of a link between HPW practices and earnings in Australia and US. Ashton and Sung express that in general, workers involved in HPW systems tend to earn more (Tamkin et al., 2004).

<sup>8</sup> These examples are not included in the list of references; however its source (Tamkin, et al., 2004) is the one included.

## *Social Outcomes*

- 4.73 Whilst the main driver is increased business performance, the literature suggests that HPWPs also deliver broader social outcomes. However, the nature of those outcomes can be both positive and negative. The social outcomes identified are:
- 4.74 **Job satisfaction** – Patterson et al. (1997) reported a link between the use of HPW practices and higher levels of job satisfaction. In addition, they suggest that HPW practices can develop trust and contain intrinsic rewards. These are two elements that have a strong positive impact on organisational commitment and job satisfaction (Ashton and Sung, 2002). Morrison et al. (2005) conducted a series of studies and concluded that perceived skill utilisation was amongst the most powerful predictors of job satisfaction, a component of job-related well being, ranked even higher than traditional job design.
- 4.75 **Staff retention** – Guest (2006) argues that there is a strong indication that the presence of high performance work practices is likely to encourage more people to stay with the organisation.
- 4.76 **Higher levels of skills** – Ashton and Sung (2002) report that higher levels of training will produce higher levels of skills among the employees (Ashton and Sung, 2002).
- 4.77 **Employee motivation** – Sparham, E. and Sung (2007) present the argument that HPWPs deliver outcomes in terms of loyalty and that employees will share organisational goals and thus be more productive.
- 4.78 **Work intensification and stress** – Harley et al. (2007) and Sparham and Sung (2007) argue that performance gains are achieved at the detriment of employee well-being through work intensification and shifting responsibility to employees, which contributes to increased workload and stress.
- 4.79 The evidence on social outcomes is difficult to quantify. In addition, gaps in knowledge of the outcomes for employees are highlighted across several references (CIPD and EEF 2003; Harley et al. 2007; Sparham and Sung 2007; Lloyd and Payne 2006).
- 4.80 Sparham and Sung (2007) suggest there is a distinct research gap in this area due to:
- The result of the frequent use of a particular form of survey data. This form of survey is mainly derived from responses from managers who supply information on work practices and performance outcomes
  - The fact that many of the 'worker benefits' are intrinsic in nature and many of the existing survey have not been designed to support such enquiry
- 4.81 A number of authors have expressed their reservations about the relationship between HPW and outcomes (whether economic or social). For example, Lloyd and Payne (2006) suggest that research proves an association between HPW and business performance, but no causal link; and that the results may

be neither representative nor generalisable; being only relevant to the specific industry or businesses involved.

### ***Two camps within HPW – benefits to employers and employees?***

4.82 Harley et al. (2007) identify two broad camps regarding the impact of HPW on an organisation. In theory, HPW should bring benefits for the employer (in terms of improved business performance) and the employee (in terms of well-being).

4.83 One camp believes that, in practice, HPW brings benefits to both employers and employees. For example, Sung and Ashton (2005) argue that implementing HPW:

- Creates sustained performance improvements in organisations
- Creates a better workplace in terms of employee satisfaction and a sense of personal achievement

4.84 The other camp believes that, although the employer benefits from HPW, employees do not, and are made subject to increased work intensification.

4.85 There have been a number of criticisms levelled at this second camp in terms of the difficulty of measuring the impact of HPW on individual employees. The majority of authors agree that it is difficult to assess whether employees benefit from HPW (e.g. Harley et al. 2007; Sparham and Sung 2007).

4.86 Lloyd and Payne (2006) argue that the claim that workers benefit from the HPW remains just that – a claim which, on current evidence at least, can be just as readily refuted as it can be upheld. They also suggest that many of the specific practices associated with HPW are benign as far as worker's interests are concerned and therefore the argument is not relevant.

4.87 Tamkin et al. (2004) suggests that, more recently, the debate has shifted 'from whether HR practices do have an impact to understanding how they do so'.

### **Conclusion**

4.88 The majority of the literature identified was concerned with HPW market driven workplace approach to skills utilisation. The flexibility of the definition of HPW means that it encompasses a wide range of business practices.

4.89 Evidence on the overall take up of HPW is limited however; it appears that it is higher in large, manufacturing organisations. Strong leadership and management and employee trust are two key factors needed for successful implementation of skills utilisation within a workplace.

4.90 A number of economic and social benefits to employers and employees have been identified including increased business performance, job satisfaction and motivation.

## **5 STATE DRIVEN WORKPLACE APPROACH**

### **Summary**

This approach to skills utilisation continues to focus on implementing change within the workplace but with the state (be that national or sub national government) taking on a pivotal role in driving forward the agenda. The aim of this approach is improve national rather than individual organisation productivity and the state plays a lead role in the implementation.

The literature identifies Norway, Finland, Ireland and New Zealand as examples of this type of approach. Each has a state-led strategy or programme which delivers project activity within individual organisations. The focus of the implementation has been in two areas: employee well-being; and increased productivity.

The impact of the state driven workplace approach has been measured in terms of both social (e.g. employee well-being in Norway) and economic (e.g. productivity in Ireland). The evidence suggests that the impact has been limited to those organisations that were part of the project activity. The evidence suggests there has been no attempt to link the impact to national productivity.

The literature suggests that the impact of this approach in some countries (Norway in particularly) has been hampered by low levels of organisational buy-in (including evidencing the benefits to organisations) and an inability to effectively disseminate best practice and therefore encourage further organisations to be involved.

### **Introduction**

- 5.1 The state driven workplace approach to skills utilisation is an extension of the market driven workplace approach (to the extent that activity is delivered in the workplace), but in this case the lead organisation is the state rather than individual organisations. In these cases, the state has taken a proactive role in driving skills utilisation in individual organisation through a range of strategies and programmes.
- 5.2 The main approaches identified come from Norway, Finland, Ireland and New Zealand each are discussed in term within this Chapter in terms of the approach taken, its implementation and related impact (where evidence is available).
- 5.3 Although these countries do not explicitly refer to skills utilisation, the approaches fit the definition of skills utilisation (i.e. the effective deployment of skills in the workplace).
- 5.4 Within the literature drawn on in this Chapter the state has developed a range of activities designed to influence organisations skills utilisation through its business strategy and demands for workforce skills to improve business performance.



5.5 The literature mainly draws on international case studies as evidence of this type of approach. The majority of the literature provides a narrative of what happened rather than an attempt to assess the contributory factors or impact of the approach.

5.6 Within countries taking this approach, national governments have typically:

- Designed a national strategy or programme to promote skills utilisation
- Identified a specific skills utilisation / deployment of skills funding 'pot'
- Delivered projects in individual workplaces (often based on a national project plan that is rolled out in individual organisations)

5.7 The following section discusses the implementation and impact of available examples from Norway, Finland, Ireland and New Zealand.

## **Norway**

5.8 Skills utilisation in Norway has existed in a number of forms since the 1960s. The skills utilisation agenda has been driven forward at a national level primarily by the 'social partners'; a group comprising the main employer organisations in Norway (including The Confederation of Norwegian Business and Industry) and the Research Council of Norway (RCN).

5.9 There have been four distinct national programmes over the past forty years: The Industrial Democracy Programme; The SBA programme; Enterprise Development 2000; and Value Creation 2010.

### ***The Industrial Democracy Project***

5.10 One example of early Norwegian skills utilisation is The Industrial Democracy Project. It was based on the Tavistock 'SocioTechnical' approach (developed by Bamforth, Trist and Emeryand) and was based on democratic participation through autonomous work groups or self-managed teams to promote participatory work redesign.

5.11 Although there was some success with the Industrial Democracy Project, there were also a number of problems. There was buy in from senior management in the plants. However, in many cases organisational change in the company and reluctance from middle managers to be engaged in the project meant that success was relatively limited. The direct effects of the project seem to have limited partly because it was 'initiated from above' without sufficient motivation or buy-in at the workplace (Keep and Payne, 2002).

### ***The Norwegian Competence Reform***

5.12 In 1999 the Norwegian Competence Reform created a new national framework for adult learning built on the 'competence' of organisations and individuals:

*'Knowledge and skills must be put into play if Norway's investments in education and training are to further the development of democracy or promote innovation and economic growth. As a result, we propose*

*shifting the focus from the knowledge resources per se, to the way we use them' (The Norwegian Ministry of Education and Research, 2003a:4).*

### **The Competence Development Programme**

5.13 Competence Reform projects are delivered through the Competence Development Programme (CDP). It had a budget of NOK 400 million:

*'The most important thing about this reform was to make the workplace a site of learning. To change the way people think about learning, so as to take account of all the skills and knowledge you have acquired not only in school but at work and in society. That was the innovation' (Payne, 2006:489). Official from the Norwegian Institute for Adult Education (VOX)*

5.14 Since 2000, there have been 2618 applications for funding through the CDP of which 739 were accepted. The total programme budget has been 331 million NOK, most of which has been allocated as project grants (VOX – Norwegian Institute for Adult Learning).

### **The Realkompetanse Project**

5.15 A number of projects were developed using funding from the CDP. The most cited in literature is the Realkompetanse Project that is designed to enable employees to document their existing skills in an extended CV that contains:

*'...all the knowledge, abilities, attitudes and insight people have; these may be acquired by means of organized learning, self education, work, participation in organizations, society and family life...' (Pettersen, 2003:5)*

5.16 Employers sign part of the document to identify those skills that have been demonstrated at work and commit to consider utilising these skills in the workplace.

5.17 Initially, nine projects took place across a range of sectors. By the end of 2003, around 6,000 employees across 150 firms had been involved in the projects (Payne, 2006).

5.18 The outcomes of the Realkompetanse Project have been largely social. There is evidence in the literature that the extended CV has:

- Informed the future training needs of the individual businesses and influenced the courses that training providers run
- Acted as a catalyst for accessing training opportunities at work
- Improved the motivation of employees through the opportunity to obtain increased wages and increased job security (Payne 2006:492)

5.19 The literature suggests that the success of the project has been hindered by:

- The poor dissemination of good practice to organisations in Norway
- Buy-in from employers has been low because organisations have not felt that the project really meets their needs as employers (Payne 2006:494)

### ***The Norwegian Competence Report 2003***

5.20 The Norwegian Competence Report 2003 (The Norwegian Ministry of Education and Research, 2003a) is a state of the nation document detailing the progress made from the CDP.

5.21 The document draws heavily on the Learning Conditions Monitor 2003 (The Norwegian Ministry of Education and Research, 2003b), which looked at the factors that influence the conditions for effective learning in the workplace. The indicators used relate to how Norwegian workplaces can become effective places of learning. The document draws on: the most effective opportunities to learn at work; the most learning intensive jobs; the most important way to learn when a new competence is required at work and the most important means of learning at work.

### ***Key features***

5.22 Skills utilisation within Norway has been characterised by:

- A national drive focused on delivering project activity in the workplace
- A strong commitment to employee well-being

### ***Conclusion***

5.23 Norway has invested heavily in what we can term skills utilisation over the last forty years and spanning a number of national programmes. Evidence of the impact of skills utilisation in Norway is limited and focuses more on 'social' rather than 'economic' outcomes. The evidence of impact is largely qualitative and the literature suggests there has been no attempt to quantify impact in terms of productivity.

5.24 The main barrier to effective skills utilisation in Norway has been the low level of buy-in from individual organisations. The Norwegian Government have been unable to prove the benefits of skills utilisation to organisations in Norway and have found it difficult to disseminate evidence of good practice. This was true of both the Industrial Democracy Programme and CDP projects like Realkompetanse.

### ***Finland***

5.25 Skills utilisation in Finland became important because a) the rapid economic growth of the 1980s resulted in job dissatisfaction and work fatigue (Alasoini, 2001), which meant that the Finnish workforce needed to be re-motivated and b) low productivity, a rapidly ageing workforce, under-utilisation of skills in an increasingly pressured work environment and hierarchical management meant there was an organisational need for businesses to change to improve productivity (Payne, 2004).

### ***The Finnish National Workplace Development Programme***

5.26 Finnish skills utilisation has been driven forward by a government-run programme, led by the Ministry of Labour, The Finnish National Workplace Development Programme (TYKE-FWDP). TYKE-FWDP ran between 1996 and 2003 and aimed to:

*'...improve productivity and the quality of working life by furthering the full use and development of staff know-how and innovative power at Finnish workplace' (Alasoini et al., 1997:62)*

5.27 The programme had a wide role, disseminating research publications, seminars workshops and organising focus groups as well as acting as a broker, bringing stakeholders together to build up the national infrastructure in Finland (Keep and Payne, 2002).

5.28 In terms of specific projects, the TYKE-FWDP funded only those projects that were 'workplace initiated' and aimed to promote productivity and the quality of working life in order to achieve sustainable productivity growth (Payne, 2004). Because the FWDP was a national programme, it was able to fund cross-organisational projects. These projects, therefore, had the potential to achieve more than a number of similar projects taking place in individual organisations.

5.29 It was also important that projects encouraged:

*'...broad participation of employees in the formulation, planning and implementation phases of development activity' (Payne, 2004:13)*

5.30 Given the workplace initiated nature of Finnish skills utilisation, it is perhaps not surprising that High Performance Working practices were explicitly encouraged (see Chapter 4).

5.31 Since 2004, the Finnish skills utilisation programme has been driven forward by the new TYKES-FWDP (2004-2009). The programme comprises the original tenets of the TYKE-FWDP programme but also draws in other national projects such as the National Productivity Programme (1993-2003) and the Well-Being at Work Programme (2000-2003), (Arnkil, 2004).

5.32 According to the programme plan, TYKES-FWDP will deliver c.1000 projects and affect 250,000 employees (about 10% of the workforce) (Arnkil, 2004).

### ***The Finnish National Workplace Development Programme projects***

5.33 One example of a project funded through the TYKE-FWDP was in a nursing home for the elderly (Synvanen, 1999). The project aimed to shift 'task-orientated nursing care' based on division of labour and routine to 'primary nursing care' that was based on the needs of individual residents. By empowering the individual staff members, the project achieved increased productivity and a better quality working environment for staff.

## **Impact**

5.34 Payne (2004) argues that several evaluations have been conducted in order to identify the impact that the Finnish Workplace Development Programme has delivered. The evaluations tend to be on self-assessment questionnaires targeting managers, employees and experts involved within the projects.

5.35 Between 1996 and Sept 2001, TYKE-FWDP gave 140 million FIM funding to 450 projects involving c. 1000 businesses and c. 100,000 people (Ministry of Labour, 2001).

5.36 The programme resulted in:

*'...the improved influence of staff members, in better conflict control and in better personnel management...According to staff evaluations, the climate of the nursing home changed: previously described as oppressive the atmosphere in the workplace was now one of openness and confidence...Staff members felt they were given real responsibility and self-direction, as we as a chance to develop their own work and collectivity' (Syvanen, 1999 quoted in Keep & Payne, 2002:24).*

5.37 The evaluations showed that indicators such as productivity, quality, and responsiveness to clients' needs were selected by the vast majority of respondents as the areas where positive impact was achieved. Team work, cooperation between management and employees, social interaction in the workplace and opportunities for employees to develop their skills were also identified by the majority of the respondents (Payne 2004).

5.38 Improvements in well-being at work and working conditions were also highlighted, although the frequency of responses in this regard was lower in comparison with the organisational performance indicators referred to previously.

5.39 Finally, the document mentions that in 2003 a new evaluation was conducted. Its aim was to look at the long term impacts after two and half years of the projects' completion. The findings referred back to the positive impacts from previous studies.

5.40 Keep and Payne (2002) suggest that:

*'the findings have to be handled with caution, given the difficulties of controlling for other factors that impact on organizational performance and the fact that they are based upon the subjective views of respondents with a clear stake in seeing such projects continue'(Keep and Payne 2002:22).*

5.41 Even though the programme has achieved a higher level of participation of employees, the self-assessment showed evidence that there was still room for improvement. Payne (2004) suggests that the vast majority of the respondents indicated that managers and experts had a greater influence in the programme,

with only around half of the respondents agreeing that employees were able to influence the programme.

### **Key features**

5.42 In the Finnish approach to skills utilisation:

- The State has been a reactive partner in skills utilisation responding to industry needs
- Project funding is allocated using a strict criteria that ensures that projects can demonstrate their relevance to a sector and ensure tangible benefits
- Projects are exclusively workplace based with the aim to deliver industry-specific outcomes

### **Conclusion**

5.43 Like Norwegian skills utilisation, the Finnish approach focused on delivering projects in the workplace. However, Finland appears to have more successfully gained buy-in from employers by encouraging organisations to design their own projects.

5.44 Some qualitative evidence suggests that the approach has been successful in achieving 'social' outcomes. However, the literature suggests that this data is positively biased and it is difficult to isolate the impact of skills utilisation as a contributor to increased productivity, therefore there is little evidence of the 'economic' outcomes of the Finnish approach.

## **Ireland**

### **Implementation**

5.45 Skills utilisation in Ireland has become an important mechanism for raising Ireland's productivity on the international stage. Its focus has been primarily on implementing HPW practices within Irish organisations.

5.46 'Working to our Advantage – A National Workplace Strategy' (NCP, 2005) sets out Ireland's skills agenda to 2020. The National Centre for Partnership and Performance set up a Forum on the Workplace of the Future to identify the areas that the national strategy should contain. The forum showed that Ireland had a strong track record in implementing HPW practices as a means to increase productivity:

*'The work of the Forum has shown that, currently, our most adaptive employments are those where "bundles" of complementary work practices are deployed – team working, information sharing, consultation and meaningful involvement, training and learning, performance management, employee financial involvement and work/life balance arrangements. Many of these approaches can be described as participatory or "high involvement" and there is a high correlation between these practices and job satisfaction, low staff*

*turnover rates, high productivity and the successful adoption of new technology and innovation' (NCP, 2005:iv).*

- 5.47 There are 42 recommendations in the strategy that aim to create a workplace of the future that is: agile (in terms of innovation); customer-centred; knowledge intensive; networked; highly productive; involved and participatory; continually learning; and proactively diverse (NCP 2005:10).
- 5.48 A recent document commissioned by the National Centre for Partnership and Performance (NCP) and the Equality Authority provides evidence of the use of HPW in Ireland (National Workplace Strategy, 2008). The report suggests that the emphasis on HPW practices has delivered a number of 'economic' outcomes to the Irish organisations who use them.
- 5.49 The sample included 132 companies drawn from the Irish Times Top 1,000 Companies database. The sample included a multi-sectoral set of Irish-based businesses, including indigenous and foreign owned companies with operations in Ireland (NCP, 2008).

### **Impact**

- 5.50 The report highlights that the use of HPW is associated with labour productivity, workforce innovation and employee turnover. The methodology involved a survey and quantitative analysis of the responses.
- 5.51 The report presents measurable impacts. The authors discuss the existence of a link or relationship between HPW and organisations' performance through the following indicators (NCP, 2008):
- **Labour productivity** – The use of HPW accounted, on average, for 14.8 per cent of labour productivity among the survey sample. In terms of total economic value, an average annual productivity-per-employee of more than EUR 40 K was directly attributable to the use of HPW;
  - **Workforce innovation** – The use of HPW accounted, on average, for 12.2 per cent of workforce innovation, equivalent to sales revenue of EUR 2 K;
  - **Employee turnover** – The use of HPW accounted, on average, for 7.7 per cent of variance in annual employee turnover; and
  - **Diversity and equality strategies** – The report also adds diversity and equality as one important element of HPW. Evidence from the research shows that productivity was at its highest when implementing diversity and equality strategies in conjunction with strategic HR management, partnership and flexible working practices.

### **Conclusion**

- 5.52 Ireland has invested in HPW practices as a means of raising productivity in individual Irish organisations. The approach appears to have organisational buy-in through the practices implemented in individual workplaces. The evidence also suggests that Ireland has linked HPW practices to economic outcomes and been able to show a positive correlation between HPW and particular business indicators.

5.53 However, there has not been an attempt to assess the impact of the approach on the Irish economy as a whole (i.e. national productivity).

5.54 The evidence suggests that this approach to skills utilisation has been a relative success in terms of organisational skills utilisation. However, as there has not been an attempt to assess the impact on the Irish economy as a whole, it is not possible to say whether this organisational success aggregates to a genuine improvement in national productivity.

## **New Zealand**

### ***Implementation***

5.55 Skills utilisation in New Zealand gained prominence as New Zealand strived to reform its markets to increase its international competitiveness during the 1980s. Following a long period of low economic growth, New Zealand implemented a large number of fundamental changes in the country including the deregulation of product and financial markets, extensive privatisation, relaxed import legislation and the elimination of farm support (Guthrie, 2001).

5.56 At the same time, New Zealand began to utilise a system of high involvement work practices manifested in:

*‘...a system of management practices giving employees skills, information, motivation, and latitude and resulting in a workforce that is a source of competitive advantage’ (Guthrie 2001:181).*

5.57 More recently, the New Zealand Government implemented a Workplace Productivity Working Group (2004). Their Workplace Productivity Challenge Report (August 2004) identified seven key business drivers for workplace productivity: Building Leadership and Management Capability; Creating Productive Workplace Cultures; Encouraging Innovation and Technology; Investing in People and Skills; Organising Work; Networking and Collaboration; and Measuring What Matters (The Workplace Productivity Working Group, 2004).

5.58 Since the report was written, the New Zealand Government set up in 2005 the Workplace Productivity Reference Group. The group is a public/private partnership designed to promote skills utilisation in New Zealand and offer practical advice to employers wishing to be involved.

### ***Impact***

5.59 There have been limited case-study examples identified that show the practical take up of HPW by organisations in New Zealand. A largely theoretical study by Guthrie identified a positive relationship between the introduction of HPWPs (called High Involvement Practices by Guthrie) and employee retention and firm productivity (Guthrie, 2001) but no literature was identified that documented progress since 2005 and the inception of the Workplace Productivity Reference Group.



## **Conclusion**

5.60 New Zealand has invested in HPW practices in the workplace and appears to have obtained a certain degree of organisational buy-in. The strategy and workplace group are designed to aid organisations in their respective implementation of HPW practices.

5.61 There was very little evidence of the impact of skills utilisation in New Zealand. The evidence does not show an attempt to link the approach to productivity at organisational or country level.

## **Concluding discussion of the state driven workplace approach**

5.62 The state driven workplace approach has been used in a number of countries over the past few decades. The approach is able to deliver activity in the workplace and therefore obtain a certain degree of organisational buy-in.

5.63 The evidence draws on quantitative and qualitative data. Evidence of the impact of the state approach is limited but identifies some economic and social outcomes such as: labour productivity (Ireland) and improved well-being at work (Norway). By focusing on HPW, Ireland has achieved tangible benefits in individual workplaces and buy-in from organisations.

5.64 The literature suggests that some countries implementing the state driven workplace approaches to skills utilisation can struggle to obtain buy-in from the business sector, especially if they are unable to suitably evidence the benefits of implementing skills utilisation. In places, they have struggled to disseminate best practice examples of skills utilisation.

## 6 HOLISTIC APPROACH

### Summary

This approach takes a broader perspective on skills utilisation. It is driven by the state (in collaboration with other key agents) where countries recognise that: a) the skills of its population is an important driver of productivity; and b) addressing the skills issue can only effectively be achieved through collaborative working between the state, employers, employees and providers of learning services in its broadest sense.

The literature identifies Australia, Singapore and Malaysia as examples of this form of implementation. All have developed strategies and programmes designed to implement wide-scale changes to specific priority industries. The outputs have been industry-wide strategies and projects designed to make organisations in those sectors more productive internationally.

The literature review identified a limited amount of evidence in terms of the impact of the holistic approach. What little evidence there is suggests that there has not been an attempt to evaluate the impact of skills utilisation on national productivity. There is some evidence that the projects have had a positive impact in the industries in which they were implemented. The approach has delivered relatively more social outcomes than economic ones.

Evidence regarding the impact of holistic approaches to skills utilisation is patchy, with limited evaluations and no measurable outcomes identified. This in part is due to a lack of common definition of skills utilisation, many holistic approaches to skills utilisation being in early stages of implementation, and the nature of the holistic approach which means that measurement and identifying causal relationships is very complex.

### Introduction

- 6.1 Literature falling within this third area takes a broader perspective of skills utilisation and is led by the state (in collaboration with other key agents) where countries recognise that: a) the skills of its population is an important driver of productivity; and b) addressing the skills issue can only effectively be achieved through collaborative working between the state, employers, employees and providers (see figure 6.1). Activity is targeted at national and industry wide level to achieve change rather than a focus on individual businesses in isolation.
- 6.2 The literature on international, holistic approaches to skills utilisation focuses almost exclusively on the role of national organisations (including national governments). There is very little literature regarding the role, motivation or behaviour of employers or employees in skills utilisation.
- 6.3 Holistic approaches to skills utilisation have been implemented in two main ways:

- A national strategy or programme linked to skills utilisation outcomes and aspirations; and
- Specific projects designed to realise these skills utilisation outcomes typically targeted at a specific industry sector.

6.4 Holistic approaches to skills utilisation share a number of common characteristics:

- They have a state steer
- There is a designated pot of funding available
- The main driver is national prosperity
- There is buy-in from stakeholders (employers, employees and learning providers) in terms of development and delivery
- The programme comprises projects that aim to deliver tangible outcomes and business benefits

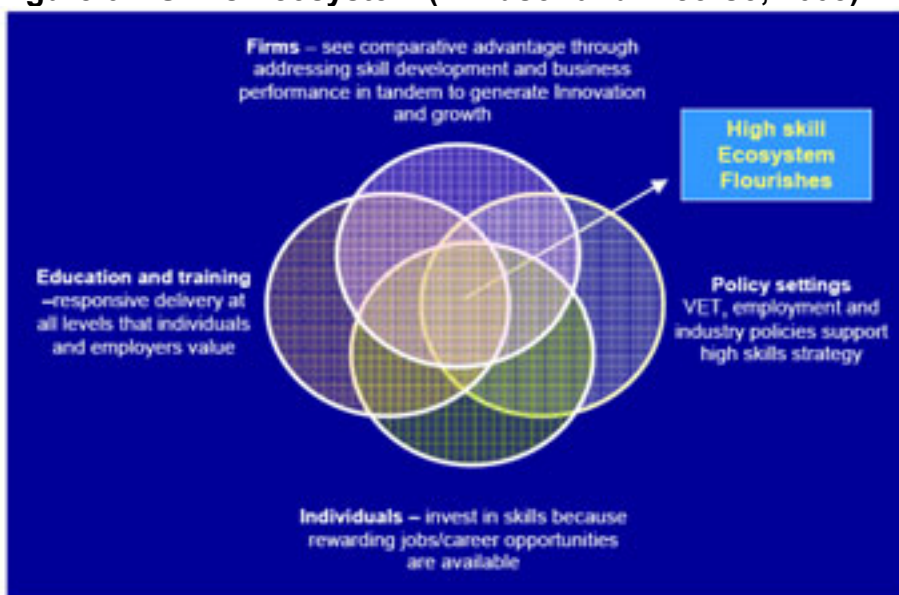
6.5 Australia, Singapore and Malaysia have taken a holistic approach to skills utilisation. A summary of available literature of the implementation and impact of their respective skills utilisation programmes follows.

## Australia

### *The skills ecosystem*

6.6 The Australian skills ecosystem model is built on David Finegold's model of the skills ecosystem in Silicon Valley that enabled businesses in the area to sustain a high skills base (Finegold, 1999). The system identifies roles for individuals, firms, education and training providers and policy makers that, when combined, allow skills utilisation to be realised on a national level, rather than just in individual businesses. The system works because all stakeholders can gain from the skills ecosystem (see Figure 6.1).

**Figure 6.1 Skills Ecosystem (Windsor and Alcorso, 2008)**



## **Implementation**

6.7 In the Australian context, the skills ecosystem model is primarily concerned with creating an environment for skills formation in all industries to enable Australia to compete internationally. The main drive is to align the Vocational Education and Training sector (VET) with employers.

6.8 The ecosystem in Australia was built on a national strategy (skills formation strategies) and individual projects (skills ecosystem projects) involving the four main agents; individuals, learning/ training providers, firms and policy makers.

### *Skills formation strategies*

6.9 The Queensland's strategy for skills utilisation in Australia comprises a number of industry-specific skills formation strategies that were developed by the Queensland Government as part of the Queensland Skills Plan. A skills formation strategy:

*'...provides a framework for industries and communities to work with each other, the Queensland Government and other relevant stakeholders to analyse and address the reasons for skills shortages' (Queensland Government, 2006a:1).*

6.10 There are 20 skills formation strategies in Queensland spanning a number of industries/geographic areas. The specific projects in each strategy can be divided between training solutions (e.g. customised training, developing new qualifications and collaboration between firms to develop skills and share knowledge) and non-training solutions (e.g. mapping career pathways in industries, developing recruitment policies and exploring job redesign) solutions (Queensland Government, 2006a). Skills utilisation is addressed in both types of solution.

6.11 One example is the ICT skills formation strategy (Queensland Government, 2006b). The strategy runs for two years (2006-2008) and engages organisations including ICT enterprises and professionals, the VET sector and government agencies. The expected benefits of the ICT strategy are:

- improved collaboration between enterprises, industry, government and the education and training sectors in planning for the future
- information sharing and learning among participants, and the collaborative network as a whole
- new strategies to address workforce development issues and to improve the sustainability and ongoing development of the ICT sector

### *The skills ecosystem project*

6.12 The Skills Ecosystem National Project is a state-federal led project comprising a number of work streams including engaging researchers and practitioners to, amongst other things, develop advice about skills challenges, developing an online forum and delivering a range of national 'demonstration projects' (Skillecosystem, 2006). The project is funded by the Australian Government

and managed by the New South Wales Department of Education and Training (NSW DET).

- 6.13 Nine demonstration projects took place across Australia between 2003 and 2006 covering four main areas: Vocational and Education Training (VET) as innovation partner; reshaping jobs and labour markets; quality improvement across a supply chain; skills and labour shortage (Skillecosystem, 2006).
- 6.14 Since 2006, a further six projects have been developed (under the new title of Skill Ecosystem Strategy development projects). These projects are taking place in industry networks that were given facilitation assistance and a small grant to develop them. The industry sectors are: food production (meat), manufacturing, disability services, energy, mobile entertainment and dairy.
- 6.15 One example of a completed project 'Forming Skills in a Mental Health Ecosystem' (Industry Skills Council, 2006) which considered the network of Mental Health service in the Central Coast as a skills ecosystem. The project aimed to identify ways in which more effective services could be offered through greater collaboration between stakeholders. The projects' primary objectives were to:
- Identify critical barriers to effective collaboration between organisations and agencies within the Central Coast mental health network of services;
  - Isolate skills that need to be formed to eliminate or help reduce identified barriers to collaborative behaviour;
  - Deliver skills formation interventions aimed at resolving the identified skills needs; and
  - Assess outcomes and construct a plan for achieving sustainable effort (Industry Skills Council 2006:7).

### **Impact**

#### *Skills formation strategies*

- 6.16 There is no evidence from the literature regarding the impact of skills formation strategies. Many are due to be completed by the end of 2008 and therefore it is too early to evaluate their impact.

#### *The Skills ecosystem project*

- 6.17 A mid-term evaluation of the Skills Ecosystem National Project (Windsor 2006) stated that since many projects were not yet completed, a detailed assessment of their impact was not appropriate. The evaluation suggested that 'in a short time, the projects have achieved some remarkable outcomes' but Payne (2008) highlights the fact that the document lacks specific information about the nature or extent of those outcomes.
- 6.18 Payne (2008) suggests that a useful 'policy enabler' outcome of the skills ecosystem project is the concept of the skills ecosystem. He mentions that:

*'...the concept may be a useful analytical tool for understanding skill formation challenges in a wide variety of contexts' (Payne, 2008:316).*

### *Forming Skills in a Mental Health Ecosystem*

6.19 Forming Skills in a Mental Health Ecosystem was evaluated in 2006 (Industry Skills Council, 2006). The evaluation was based on qualitative interviews and focus groups. The identified outcomes the project delivered were:

- Greater understanding amongst mental health service network partners of each other's role
- Improved relationships between network partners
- More productive use of limited resources
- Improved experiences for consumers of mental health services
- Increased innovation in the construction and delivery mental health services

6.20 The evidence of the impact of this approach is limited. Lack of measurable evidence is a common feature across the different projects. In addition, many of the examples have yet to be formally evaluated or are still in the early stages, increasing the difficulty to identify their impact.

### **Key Features**

6.21 The skills ecosystem approach has:

- Addressed the labour market and workplace issues affecting skill, as well as considering education and training
- Each project works through the evidence of the problem to be addressed and has shown why and how labour supply strategies can make a difference
- Stakeholders are committed to addressing a broad agenda rather than narrow business interests
- Interventions are designed across an industry or region, not just at an individual firm level
- Emphasis on building industry capability to more systematically plan and manage skill development in ways that can be sustained by both individual businesses as well as at an industry and / or regional level (Windsor and Alcorso, 2008).

### **Conclusion**

6.22 Evidence is focused on the 'policy enablers' for this approach. There has been no evidence identified of the measurable impact of the Australian skills ecosystem. This lack of tangible evidence is mainly due to the fact that some projects are at an early stage of development or that there is limited research concerning the outcomes of the ecosystem approach to skills utilisation.

6.23 The literature refers to the following as the key benefits of the skills ecosystem:

- The use of the skills ecosystem as a useful theoretical concept
- Improved relationships across stakeholders in those projects that have been evaluated

## Singapore

### *Implementation*

- 6.24 The Singapore Government recognised that in order for Singapore to be internationally competitive, it needed to move from low to high value production to improve productivity. A large part of this plan was to attract inward investment from Multinational Corporations (MNCs) and up-skill its low-skilled population to develop high value sectors.
- 6.25 Singapore's national skills utilisation programme was set out in their national Integrated Workforce Development Plan. The Plan set out to introduce modern organisational reforms in two main ways. Firstly, developing the workforce to meet the needs of the high value economy. Secondly, facilitating employers to rethink their work practices on an on-going basis so that they were able to remain competitive and boost productivity over time (Ashton and Sung, 2002).
- 6.26 The projects set out in the Integrated Workforce Development Plan were funded through the Skills Development Fund. The Fund placed a levy on employers of low-paid labour to fund individual programmes related to skills utilisation. As the projects were directed at a national level, the Singapore Government was able to develop industry-wide projects.

### *The Critical Enabling Skills Training Programme*

- 6.27 There have been a number of state-led projects in Singapore. One example is the Critical Enabling Skills Training (CREST) Programme. CREST aimed to refocus the skills agenda in Singapore from technical skills to building a foundation in order to develop a number of 'critical' (or core) skills that enable Singapore employees to continually acquire and apply new knowledge and skills.
- 6.28 The CREST model is delivered through a public/private partnership. The Government sets the standards. Private sector providers deliver the programmes. There are seven critical skills in the CREST model: 'learning-to-learn', literacy, listening and oral communication, problem-solving and creativity, personal effectiveness, group effectiveness and organisational effectiveness and leadership. Once the skills have been acquired on the courses, the companies sign an agreement to apply those skills in the workplace. The CREST programme therefore embodies skills utilisation in that it attempts to move from skills acquisition to skills utilisation.

### *The Work Redesign Programme*

- 6.29 Another example of a project is the Work Redesign Programme which aims to encourage employers to continuously review their work processes and adopt a total approach to workplace redesign. The government-led project aims to develop 50 work redesign blueprints which represent the 20 industry clusters identified as crucial to Singapore's future development.

6.30 The Work Redesign Programme is heavily subsidised by the Skills Development Fund. Consultants are employed to train managers in companies to implement redesign processes in their respective industries. Once the practices are implemented, the programme ties in with other projects, such as CREST, so that staff are developed in line with these new processes (Ashton and Sung, 2002).

## **Malaysia**

6.31 Like Singapore, the Malaysian Government believed that Malaysia needed to develop the capacity to compete in high value markets in order to ensure its continuing prosperity. Their approach was two-fold. Firstly, to forge an alliance with MNCs engaged in high value industries. Secondly, to transform state-owned companies through privatisation to become model companies in the transformation process.

6.32 At the same time, the Malaysian Government saw that they needed to up-skill the population. As in Singapore, they generated funding through a levy on employers (the Human Resource Development Fund). However, the levy was charged on the vast majority of employers in Malaysia. The income from the levy is used to fund training in those sectors/occupations where there is the most need for development. Therefore, training is driven nationally through this funding stream.

## **Key features**

6.33 The key features identified of the approaches in Singapore and Malaysia are:

- A recognition that there was a productivity challenge and that improving the skills of the population was a potential solution
- Skills utilisation has been directed by central government at a national level and been country/industry-wide
- There is a pot of designated funding available for skills utilisation projects
- Projects are designed to improve the productivity of the whole of the country and therefore reflect business needs
- Projects are delivered in partnership between the state, training providers and employers
- The projects have delivered tangible activity and been beneficial to businesses

## **Impact**

### **Singapore**

#### *CREST*

6.34 The literature suggests that this programme has been successful in terms of the number of employers involved. By the end of 2000, more than 1,500 employers had provided this training to their employees (Ashton and Sung, 2002). No further evidence of the impact of CREST was identified within the literature.



### *The Work Redesign Programme*

6.35 There is no evidence in the literature of the impact of the Work Redesign Programme.

### **Malaysia**

6.36 From the literature identified, there is no evidence of the impact of the Human Resource Development Fund.

### **Conclusion**

6.37 From the literature, there is no tangible evidence of the impact of Asian approaches to skills utilisation. For CREST, the only indicator identified was 'number of employers involved', there was no evidence identified of measurable impacts within the organisations. There was no evidence of the impact of the Work Redesign Programme or the Human Resource Development Fund.

### **Concluding discussion of the holistic approach**

6.38 The holistic approach to skills utilisation has enabled the state to direct activity at a national level. It identifies roles for a wide range of stakeholders to maximise its impact.

6.39 Project activity has tended to be industry-wide with the state acting as a broker between different organisations to ensure that skills utilisation is delivered.

6.40 However, there is little evidence of the impact of the approach. This is due in part to the lack of evaluations identified and the early stage of the implementation of many of the programmes. There is no available literature on the 'economic' or 'social' outcomes in terms of productivity or employee well-being.

## **7 MEASUREMENT OF SKILLS UTILISATION AND LINKS WITH CONTEXTUAL FACTORS**

### **Summary**

This chapter is divided in two sections: Measurement of skills utilisation and the links between skills utilisation and contextual factors.

Six data sources have been identified that measure elements related to skills utilisation: Skills Survey 2006; People and the bottom line; Human Resources Management and General Management survey; Skills for Business Network Employer survey; Chartered Institute of Personnel and Development survey; and Workplace Employment Relations Survey (WERS).

When attempting to measure skills utilisation, the majority of research focuses on employers and the measurement of the uptake of HPW. Only one survey focuses on the employees' perspective; and only one focuses on both sides (employer and employee's perspective). Furthermore, the lack of clarity of the term skills utilisation makes it difficult to confirm whether or not these sources are indeed measuring the utilisation of skills.

The second section explores the links between skills utilisation and the following contextual factors: identification of skills among the workforce, productivity, workplace matters, leadership and management, business sectors and employer demand for skills.

The relationship between skills (mainly measured through qualifications) and productivity is not straight forward. Evidence shows that acquiring skills will provide benefits to the individual which can impact positively on an organisation's performance and, at aggregate level, contribute towards improvements to national productivity. However, the main conclusion from the literature is that, even though a relationship between skills and productivity has been identified, the evidence has not been sufficient to conclude the existence of a causal relationship between both variables.

The evidence identifies a link between skills utilisation and a range of workplace matters such as employee motivation, job design, employee participation, equality issues, collective agreement and well being. However, the evidence cannot conclude if the link identified is causal.

The literature highlights that leadership and management can have the greatest impact on skills utilisation. There is evidence showing that business sectors can influence on the way the skills are utilised. The majority of this evidence is related to HPW. Finally, no evidence was identified linking skills utilisation and increased employer demand for skills.

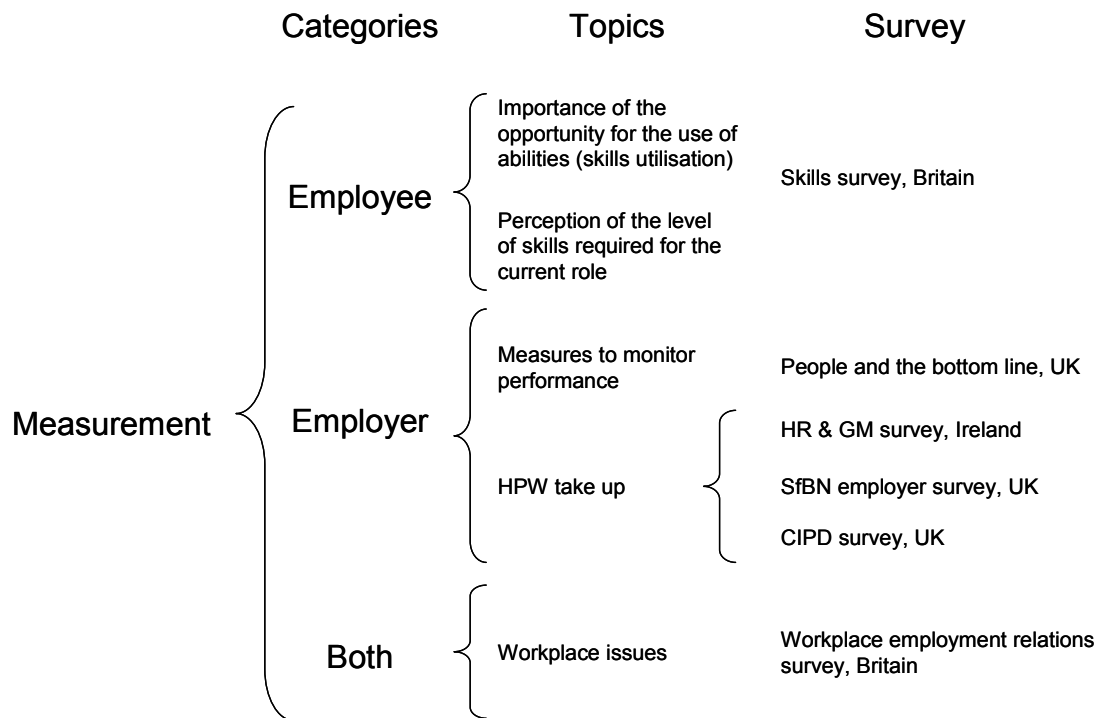
## **Introduction**

- 7.1 This chapter is divided in two sections. The first discusses the measurement of skills utilisation through an analysis of existing surveys related to the topic. Measuring the utilisation of skills is not an easy task. The lack of an agreed definition; different approaches taken to skills utilisation; the fact that in most cases the evidence is focused on the impact of skills acquisition and development (and not necessarily their utilisation); and the limited evidence identified from the literature add complexity to the analysis.
- 7.2 The second section explores the links between skills utilisation and contextual factors such as productivity, workplace matters and leadership and management. The purpose of this section of the review is to analyse the available evidence base in order to address, where possible, the questions posed in the Research Specification (see Appendix A).

## **The measurement of skills utilisation**

- 7.3 The evidence presented in previous chapters suggests that productivity and well being are the two main drivers for implementation of skills utilisation.
- 7.4 Measurement of skills utilisation to date has focused on the outcomes of specific programmes and/or strategies most often measured against indicators such as profit, business performance or job satisfaction (see chapters 4 to 6). Limited evidence has been identified on the impact that programmes have achieved in terms of productivity and general well being.
- 7.5 From the literature, six data sources have been identified that measure skills utilisation albeit in different ways. In order to present the evidence in a clear way, the following three categories were identified:
- Surveys focused on employees
  - Surveys focused on employers
  - Surveys focused on both.
- 7.6 The figure below shows a summary of the evidence identified highlighting the categories, topics covered and data source.

**Figure 7.1 Summary of the evidence for measuring skills utilisation**



7.7 Figure 7.1 shows that when attempting to measure skills utilisation the majority of the surveys focus on employers and the measurement of the uptake of HPW. Only one survey focuses on perceptions of the employee and only one survey attempts to measure a range of workplace factors through focussing on both the employer and employee.

7.8 The following sections will present the main characteristics for the six surveys identified, highlighting its relevance to skills utilisation.

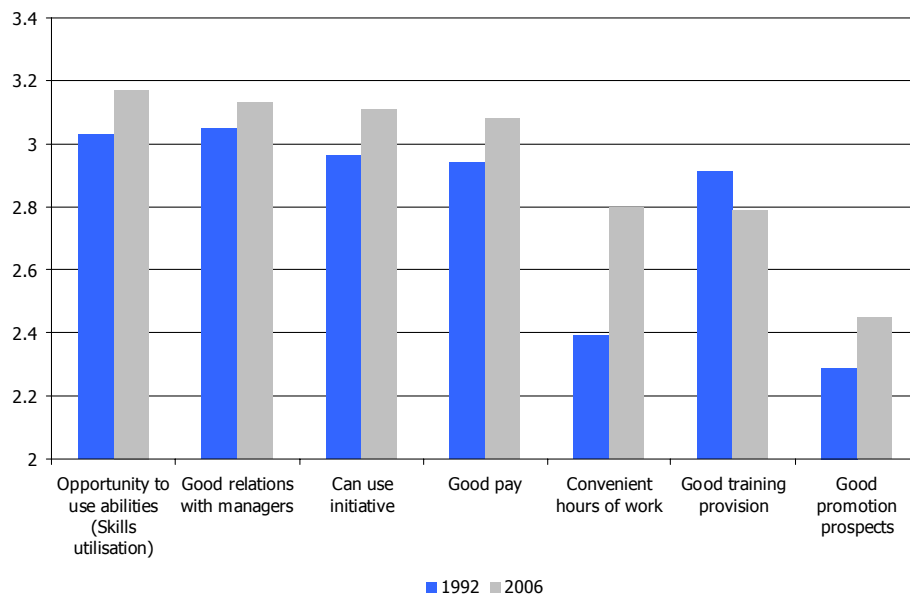
### **1. Employee focus – Skills Survey 2006, Britain**

7.9 This survey is a representative survey of working individuals living in Britain aged between 20 and 65. Its aim was to gather information on the skills used at work via a survey of employees. The results from the survey were compared across four separate surveys carried out in 1986, 1992, 1997 and 2001.

7.10 The research included a module designed to explore employee attitudes to skill use and development. The survey replicated many aspects of the two previous skills surveys (1997 and 2001) allowing comparisons between the three surveys (Felstead et al., 2007).

7.11 The main finding of the survey in relation to skills utilisation was that demand for skills utilisation amongst UK employees was high. The survey found that ‘opportunities for the use of abilities’ (skills utilisation) and opportunities to ‘use initiative’ were of central importance to UK job preferences. As shown in Figure 7.2, being able to make use of abilities at work was ranked higher than ‘good pay’ (Felstead et al., 2007).

**Figure 7.2 Job preference orientations 1992 and 2006 (Felsted et al. 2007)**



7.12 Figure 7.2 also highlights how skills utilisation has become more important for employees over time and is now the most important factor for employees (when compared with 1992). Even though the information was collected across Britain, not all the results are presented for each nation. The data presented in figure 7.2 is for Britain only.

7.13 ‘How smart are Scottish Jobs?’ (Felstead, 2007) is a document based on the findings of the Skills Survey 2006. The document analyses the way skills in Scotland have been used and deployed. The document shows that despite Scotland having succeeded in raising the proportion of its population who are highly qualified, a large proportion of employees highlighted having qualifications above those required to their current role.

7.14 The analysis is based on qualifications (and not the broader definition of skills). However, the conclusion is that more needs to be done to raise the expectations of employers, so that workers’ skills are used more effectively.

7.15 The implicit argument is that reducing the mismatch between supply of skills and demand from employers gives an indication of the effective use of skills. The main limitation of this measurement is that is only based on qualifications.

## **2. Employer focus – People and the Bottom Line, UK**

7.16 In ‘The Contribution of Skills to Business Performance’, Tamkin (2005) explores the literature linking skills with business performance, with the aim of providing useful and robust evidence to businesses about the benefits of investing in skills and training.

7.17 Since the development of the 4A model of capability, further work by Tamkin et al. (2008) has been undertaken using regression analysis from a survey of 2,905 organisations with the aim of supporting the link between investment in skills and performance. The research aims to identify a core set of measures which organisations could track to monitor performance (Tamkin et al., 2008).

7.18 The indicators do not measure skills utilisation, however, they cover related issues and include:

- Proportion of managers that left voluntarily over the last twelve months
- Proportion of staff that receive profit related pay
- Proportion of staff that have a regular appraisal
- The frequency with which staff have one to ones
- Who decides on the pace of work (1 = exclusively employer, 5 = exclusively employees)
- Who decides on task allocation (1 = exclusively employer, 5 = exclusively employees)
- The organisation encourages and captures the suggestions of the workforce

7.19 At the individual level, the 4A indices had very little effect on performance. However, when a combined index was developed across the individual 4A indices, the effect on performance was much more powerful:

*'The model implicitly assumes that the specific elements of the 4A model are complementary to one another, and it is this complementarity that acts to enhance performance' (Tamkin et al. 2008:57).*

7.20 This research identifies a link between investment in skills and business performance. The model does not aim to directly measure how skills are utilised; however, there is recognition of a link between skills utilisation and business performance.

### **3. Employer focus – Human Resources Management and General Management survey, Ireland**

7.21 The National Centre for Partnership Performance and the Equality Authority recently published findings from research conducted only across Ireland (NCP, 2008). The survey sample was drawn from the Irish Times Top 1000 Companies. A total of 132 companies completed a Human Resources Management and General Management survey focusing on the implementation of HPW practices across Irish businesses.

7.22 The results from the survey showed that when analysing all the firms involved, 48.8 per cent used HPW practices. The data provided breakdowns for different sectors, showing that personal services had the greatest usage (64.4%) and Health services the lowest (35.8%).

7.23 The results also showed that the use of HPW practices was linked with workforce size; with companies with more than 500 employees being more likely to use them than companies with less than 500 employees.

7.24 A previous survey, conducted in 2004, allowed for the comparison of the results over time from 48 companies. Even though the comparison between surveys did not allow tracking of the proportion of businesses implementing HPW practices, improvements of the outcomes achieved were identified and presented previously (Chapter 4).

#### **4. Employer focus – Skills for business network 2005, UK**

7.25 The report ‘Skills for Business Network 2005: Surveys of Employers’ presents the findings of the survey of UK employers conducted to inform the evaluation of the Skills for Business network (SfBn). The SfBn comprises the 25 licensed employer-led independent Sector Skills Councils (SSCs). (SSDA, 2006)

7.26 One key component of the survey was to measure the engagement of organisation in HPW practices. Other topics covered by the survey included training, workforce development, incentives and rewards.

7.27 The results of the survey concluded that overall, 29 per cent of the organisations involved had adopted HPW practices. The publication highlights that the size of the organisation influenced the level of engagement in HPW (ranging from 14 per cent of micro organisation to 88 per cent of the largest organisations) (SSDA, 2006:84).

#### **5. Employer focus – Chartered Institute of Personnel and Development survey 2004, UK**

7.28 This survey includes responses from 294 UK CIPD member organisations. Even though a variety of sectors were targeted, because of the sample size, the analysis conducted was restricted to four industrial sectors: Manufacturing; real estate, renting and business services; financial services and wholesale, retail, hotels, restaurants, transport, storage and communication (Sung and Ashton, 2006).

7.29 The survey contains data on 35 high performance management practices and 20 measures used to assess company performance. The research categorised the high performance management practices across four categories showing that some practices might be relevant to specific sectors.

7.30 The four categories are:

- Practices similarly used to a high level
- Practices similarly used to a low level
- Practices similarly used in general
- Practices differently used by sectors<sup>9</sup>

#### **6. Employer and employee focus – Workplace Employment Relations survey, UK**

7.31 This is a national survey of people at work. This survey has been conducted since 1980. The results of this series of surveys have monitored the state of employment relations in workplaces in Britain<sup>10</sup> over the last two decades (Kersley et al. 2006).

---

<sup>9</sup> See also paragraph 7.105

<sup>10</sup> The information is presented only for Britain. No detail regarding each nation was included.

7.32 Even though the survey does not measure the level of utilisation of skills among organisations, it does provide relevant information about work organisation, equal opportunities, work life balance, employee well being and the management employee relationships. These issues are all related to skills utilisation.

### ***Conclusion on the measurement of skills utilisation***

7.33 The measurement around skills utilisation is limited. Only one survey focuses on the employees' perspective; and only one focuses on both employer and employee's perspectives. These two sources (Skills survey and WERS survey) are part of a series allowing comparisons across time.

7.34 The four sources focused on the employers' perspective tend to be one off surveys. This represents a limitation for conducting time series or trend analysis. Finally, they tend to be focused on HPW and its take up.

### **Links between skills utilisation and contextual factors**

7.35 This section aims to bring together the evidence on skills utilisation to address a number of the research questions identified by the Scottish Government. In order to achieve that, the rest of the chapter discusses the relationship between skills utilisation and the following contextual factors:

- (a) Identification of skills among the workforce
- (b) Productivity
  - (i) At the individual level
  - (ii) At the organisational level
  - (iii) At the national level
- (c) Workplace factors
  - (i) Employee participation
  - (ii) Equality issues
  - (iii) Employee motivation
  - (iv) Collective agreements
  - (v) Job design
  - (vi) Well being
- (d) Leadership and management
  - (i) People management
  - (ii) Management of learning
  - (iii) Organisation management
  - (iv) Management practices and improvements in performance
- (e) Business sectors
- (f) Employer demand for skills



### **(a) Identification of skills among the workforce**

7.36 The evidence is limited in terms of the nature and extent of specific practices that employers have used to identify and utilise employees' skills. However, we can draw on specific examples from each of the approaches presented in the previous chapters.

#### *Market driven workplace approach*

7.37 The existing case study evidence on HPW conducted by Sung and Ashton (2005) identifies that employers place importance on 'other skills' (for example communication, organisational or leadership skills) in addition to the technical skills from their employees. These 'other skills' vary according to the nature of the organisation but nearly always reflect the culture and values of the organisation.

7.38 To identify 'other skills', employers implement a range of practices at the recruitment stage such as assessment centres or assessments of teamwork, communication and/or people management capabilities (Sung and Ashton, 2005).

7.39 Once the individual is recruited, the evidence shows that organisations continue assessing the level of skills through a range of different practices such as the assignment of a mentor; monthly one-to-one sessions discussing personal development; an 'open door' policy for employees to discuss development issues with their managers (Ahlgren et al., 2007); appraisals to assess overall development; and 360° annual reviews with 4-6 month health checks.

#### *State driven workplace approach*

7.40 In Norway, the Realkompetanse Project aimed to document employee skills. The project encouraged employers to develop extended CVs for their employees documenting formal and informal skills and committing to use relevant formal/informal skills in the workplace. (Pettersen 2003).

#### *Holistic approach*

7.41 In Singapore, the CREST programme required employers to sign a declaration that they would utilise the newly acquired skills of employees trained through CREST in the workplace.

### **(b) Productivity**

7.42 The literature regarding productivity and skills is vast and continues to grow, however, the majority focuses on the relationship between productivity and skills acquisition (rather than necessarily skills utilisation). We have drawn on literature, where relevant, to explore the relationship between these two variables. We summarise the relevant information at three levels: individual, organisational and national.

7.43 It is important to note that no literature was identified that specifically explored the relationship between skills utilisation and productivity, however, evidence was identified in relation to HPW and its impact on an organisation's performance (see chapter 4).

#### *Productivity at an Individual level*

7.44 The research at the individual level focuses on the benefits to employees of skills acquisition, mainly measured through qualifications and training (Tamkin 2008). Sianesi (2003) and Greenhalg and Stewart (1987) argue that skills acquisition enhances individual capability and the individual's value to the firm.

7.45 Literature has explored whether increased skills (measured through qualifications) actually results in more productive employees or simply provides a 'signal' to employers of more productive employees. The literature has aimed to study both effects (Walker and Zhu, 2003). Tamkin (2008) notes that:

*'...the evidence tends to favour the productivity effect rather than simply signalling' (Tamkin, 2008:4).*

#### *Productivity at an organisational level*

7.46 The literature has also shown that, as a result of a more productive and better educated workforce, benefits will also be enjoyed at the organisational level. Research by Dearden et al. (2000) and Blundell et al. (1999) shows that the benefits for organisations in terms of business performance exceed the greater wages they pay their employees as a result of higher skills.

7.47 Tamkin (2005) produced a literature review on relevant research (from 1990 to 2005) linking skills and business performance, with the aim of providing a clear picture of the evidence to present the case to employers.

7.48 The main findings from this review were:

- There is evidence of a significant association between a highly skilled workforce and organisational performance (mainly measured through labour productivity)
- Higher qualification levels of both managers and staff boosts innovation
- There is a strong relationship between different levels of UK workforce skills and the sophistication of UK products
- A more highly skilled workforce can bring other benefits such as enhancing the chances of organisational survival

7.49 The evidence shows a significant association between a highly skilled workforce and organisational performance in terms of labour productivity (Haskel and Hawkes, 2003), enhancing company survival (Reid 2000) and increased profits (Tamkin et al. 2008).

7.50 Evidence from the market driven workplace approach (presented in Chapter 4) shows that HPW can have a positive impact on an organisation's performance through indicators such as profits, margins, sales and firm productivity,

workforce innovation, employee turnover, share price and earnings (McBride et al. (2005), Tamkin et al. (2004), Tamkin et al. (2008)).

7.51 Ashton and Sung (2002) and McBride et al. (2005) also identify softer outcomes, such as job satisfaction, career progression, higher level of skills and skills development. All of these can also lead to improvements in performance.

7.52 However, it is important to note that the link between skill and business performance is complex. Tamkin (2005) highlights the following issues:

- It is difficult to separate the impact of training or skills from the many other internal and external factors that influence business performance
- There are many functions of training that are not specifically geared to learning and development (like staff retention and motivation) and, therefore, many indirect impacts on performance
- The traditional unit of skills measurement is some indicator of educational attainment but education, qualifications and training are all proxies for skills

7.53 Tamkin (2008) highlights that, within the literature related to HPW, a positive association between HR practices and firm performance has been found. However, there has been much criticism of the methodology of many of the studies on which she draws.

7.54 From the literature, specific examples of organisational performance improvements through skills and HR practices were identified. However, some authors argue that the results may be neither representative nor generalisable and are only relevant to the specific industry or organisations involved (Lloyd and Payne, 2006).

7.55 The main conclusion from the literature is that, even though a relationship between skills and productivity has been identified, the evidence has not been sufficient to conclude the existence of a causal relation between both variables. (Lloyd and Payne 2006).

7.56 Tamkin (2008) highlights that current research regarding business performance is shifting from an identification of the impact of HPW to a greater understanding of how the impact between skills and productivity is generated.

#### *Productivity at a national level*

7.57 In 2001, the UK Government set out an analysis of the underlying drivers of productivity growth. HM Treasury (2006a) identifies five drivers of productivity growth: Competition, innovation, investment, skills and enterprise.

7.58 A wealth of literature has been produced analysing the impact of each of the drivers on productivity. Research exploring the link between skills and productivity is particularly vast. Each of the drivers of productivity are essential in driving prosperity. However, it is not within the scope of this review to explore these issues.

7.59 The 2007 productivity & competitiveness indicators report (BERR 2008b) states that employees with higher skill levels contribute to higher productivity levels through their enhanced ability to utilise capital, greater capacity to innovate and greater ability to adapt to changes in the economic environment (including adopting new business practices).

7.60 Tamkin (2005) presents previous literature (UK relevant) conducted to gain a better understanding of the relationship between skills, organisation performance and (at a more aggregate level) productivity. Some findings include:

- Hard and soft skills were positively related to total factor productivity (TFP). The skills gap between the top and bottom performing firms explained around eight per cent of the productivity gap
- There was a clear connection between higher skills and higher productivity
- A large proportion of the productivity gap between the UK and Europe can be accounted for by differences in the amount of investment in physical capital and skills

7.61 The relationship between skills and productivity is not straight forward. As presented, variables interacting at different levels add complexity to the relationship. Evidence shows that acquiring skills will provides benefits to the individual which can impact positively on an organisation's performance and, at aggregate level, contribute towards improvements to national productivity.

### **(c) Workplace factors**

7.62 Some literature has explored the relationship between workplace matters and skills utilisation. A majority has focused on matters such as employee participation, employee motivation, job design, equality issues and collective agreements.

7.63 As the following sections show, it is not an easy task to isolate each of these factors, a number of which produce similar benefits that appear to reinforce one another (see also the discussion of HPW bundles in Chapter 4).

7.64 One common element is that managers play a key role in achieving improvements and changes within the workplace. The relevance of leadership and management in skills utilisation is discussed in chapter 4; however, it is relevant to highlight its influence in shaping the workplace.

7.65 The literature suggests that workplace design is an important factor in facilitating employees to develop skills and improve performance. Case study analysis of US firms found that the work design practices that developed the greatest depth and breadth of skills within employees were: the use of self-managed work teams; multi-skilling; job rotation; and the devolution of decision-making (Ashton and Sung, 2002).

7.66 Tracey et al. (1995) showed that a supportive environment had a positive impact on the effectiveness of the Transfer of Learning within the workplace.

### *Employee Participation*

- 7.67 The literature suggests that designing a workplace based on commitment (Tamkin 2005), trust and employee participation and involvement (Sung and Ashton 2005) can set the basis for a more efficient use of skills among staff.
- 7.68 A workplace that encourages employees' participation and involvement will impact positively on the motivation among the staff. Tamkin (2005) refers to the IES engagement model in order to reinforce this idea. The IES model is based on the premise that increasing employee's involvement with the organisation improves the engagement levels and as a positive impact on the motivation of employees.
- 7.69 Tamkin (2008) notes that there is evidence showing that HR practices promoting employees' involvement can also deliver positive impacts on employee satisfaction and reduce job insecurity.

### *Equality issues*

- 7.70 The literature scanning process found a small body of evidence exploring the under-utilisation of skills within specific groups (e.g. graduates, migrants or mothers) however the literature focused on those currently out of work and was therefore outside of the scope of the review.
- 7.71 Equality issues were not discussed in the majority of the literature. The only exception was Ireland, where the relevance of equality policies among the workplace was highlighted as an important part of HPW bundling to enhance business performance (NCPP, 2008).

### *Employee Motivation*

- 7.72 Tamkin (2005) suggests that employee motivation is influenced by: relationships with managers and colleagues; organisational justice and trust; promotion; work-life balance; job satisfaction; and pay and reward. Employee motivation can encourage employees to fully utilise their skills within their jobs.
- 7.73 Having a motivated workforce has been shown to influence employers' ability to effectively utilise an employees' skills. Guest (2006) points out that:
- 'The failure...[of the full utilisation of skills]...will result in a waste of the investment in competence, the degrading of the competence through lack of use and reinforcement and disaffection and disillusion among workers who may want to use their expertise' (Guest 2006:3).*
- 7.74 Guest (2006) mentions rewards and job recognition as key elements contributing to increase staff motivation. High motivation among the staff has been shown to impact on indicators related to human resources within organisations (such as staff retention).

### *Collective agreements*

- 7.75 Arnal et al. (2001) highlight that team work; flatter management structures and job rotation tend to be associated with higher productivity growth. In addition, they mention that institutions that allow closer relationships between management and employees are important. These institutions can build a high-skill, high-trust enterprise climate. The research concludes that collective agreement raises the probability of firms adopting new work practices.
- 7.76 O'Connell (2003) also highlights the existence of international evidence proving that the involvement of employees and unions in solving problems through partnership has delivered concrete organisational gains.

### *Job design*

- 7.77 Guest (2006) suggests that job design has the potential to influence the 'opportunity to contribute' within the workplace. The job design should provide the scope, challenge and level of responsibility to enable workers to utilise their skills.
- 7.78 Morrison et al. (2005) add that:

*'The performance implications of increased knowledge and skill-use as a function of job design are fairly obvious' Morrison et al. (2005:61).*

### *Well-being*

- 7.79 The evidence suggests that employee well-being is an outcome of skills utilisation and a strong indicator of job satisfaction and business performance. The level of job satisfaction, motivation and workplace design all have an influence on the level of well-being among the staff.
- 7.80 Literature on HPW shows that job satisfaction and a supportive environment can make the difference to employees' well-being (Sparham and Sung 2007). However, evidence around HPW highlights that in some cases, skills utilisation can lead to higher levels of stress and workload (Lloyd and Payne 2006).
- 7.81 Morrison et al. (2005) also argue that although skills utilisation has been recognised as a contributory factor to well-being, it is not frequently used by academics when studying well-being:

*'Perceived skill utilisation has been found to be amongst the strongest predictors of job related affective well-being, however is frequently neglected in studies of work redesign' Morrison et al. (2005: 59).*

### **(d) Leadership and Management**

- 7.82 Literature on the subject of leadership and management practices is wide ranging. A number of authors discuss the topic in relation to skills utilisation. James (2006) concludes that leadership and management is the factor that has the greatest impact on effective skills utilisation.

7.83 From the literature, three main areas of leadership and management that impact upon skills utilisation in the workplace were identified: people management; effective management of learning; and management of the organisation.

#### *People management*

7.84 James (2006) highlights that the way in which employees are managed has the greatest influence on the work environment, opportunities and motivation for skills utilisation.

7.85 Sung and Ashton (2005) conclude that leadership is central in shaping issues such as workplace culture and expectations. In addition, evidence from Ireland (Monks, 2007) highlights the critical role that line managers play in the success or failure of equality and diversity policies as 'they are frequently in a pivotal position in both interpreting and delivering equality and diversity policies and practices' (Monks, 2007:34).

7.86 Purcell and Hutchinson (2007) explored (through a survey of 12 companies) the extent to which employee commitment is influenced by the quality of leadership behaviour and satisfaction with HR practices. Both were shown to have a strong effect on employee attitudes.

7.87 Coates and Max (2005) noted that the relationship between health, work and productivity is affected by approaches to management, job design, skills development and skills utilisation.

7.88 Finally, the literature suggests that leadership and management has such relevance that it can be the factor determining whether an organisation moves towards an environment involving employees or one where they feel stressed and uninspired (CIPD (2002), Tamkin (2005), Sung and Ashton (2005), James (2006) and Guest (2006)).

#### *Management of learning*

7.89 Marchington and Wilkinson (2005) argue that the management of learning and transfer of knowledge have been shown to have a major effect on skills utilisation. If the learning fails to be integrated into wider business practices, it will become a barrier to the utilisation of new skills.

7.90 James (2006) shows that the effective management of training has a positive impact on business performance and that the way learning and transfer are managed has a major effect on skills utilisation.

#### *Organisation management*

7.91 Sung and Ashton (2005) argue that the best route to achieve an effective business strategy is through an efficient deployment of the skills available among employees.

7.92 Tamkin (2008) highlights that, when referring to effective management, it is not only about people management but also the overall management of the

organisation. Previously, Tamkin et al. (2004) showed that managers' decisions and actions impact upon all elements of organisational management including the nature of working practices in place, the organisational structure and strategies, the degree of innovation and research and development, the organisation and management of the workforce and the mix of skills demanded.

### *Management practices and improvements in performance*

7.93 There was no evidence identified of a standardised set of management practices that led to improvements in performance, however the literature identified a clear link between the two. Tamkin (2008) suggests that management practices are closely related to firm performance and the level of competition and skills levels of both managers and other employees.

7.94 Chapter 4 showed that strong and active commitment from senior management is essential in the implementation of HPW (CIPD and EFF, 2003).

7.95 Ahlgren et al. (2007) identified good practice in workplace learning and found managers had an important role in the following practices:

- Promotion of open communication and encouragement of informal and social forms of learning
- Encouragement of employees' ability to learn and to bring new knowledge, skills and experience into the workplace
- Welcome new knowledge and found it applicable in the workplace

7.96 Finally, Bloom et al. (2007) found that measures of managerial practice were strongly associated with a range of performance measures such as productivity, profitability, sales growth and business survival rates.

### **(e) Business sectors**

7.97 The majority of the evidence regarding implementation of skills utilisation and different sectors is related to HPW – see Chapter 4.

7.98 Harley et al. (2007) highlight that although evidence on HPW continues to grow; the majority of evidence comes from within the manufacturing sector. Sung and Ashton (2006) highlight that evidence from a greater range of sectors (and not just the Manufacturing or Services sector) is also required.

7.99 Combs et al. (2006) conducted a meta-analysis to estimate, among other things, the optimum size of an organisation to fully achieve positive outcomes of HPWPS on organisational performance. They found that the optimum size in the Manufacturing sector was twice as large as among Service sector employers.

7.100 Sung and Ashton (2006) suggested that the fact that many of the HPW practices were developed in manufacturing explains why they appear to be more effective in achieving a greater range of outcomes in that sector. The authors note that the sector in which the firm operates influences the



effectiveness of the HPW practices to achieve improved business performance. The factors linked to sector that were identified where:

- The way in which firms organise the production process
- The business environment
- The degree of unionisation
- The scarcity of labour in the local market

7.101 The market context influences the implementation and outcomes of skills utilisation. Kalleberg et al. (2006) concluded that the use of HPW varies across sectors, industries and jobs.

7.102 Datta et al. (2005) found that industry-specific variables such as capital intensity, growth rate and the level of product differentiation also affect HPW effectiveness.

7.103 Sung and Ashton (2005) suggested that giving advice to companies on the adoption of HPW practices must be handled with care. While there are some practices which appear to apply to all companies, many practices may be sector-specific in their adoption and effectiveness. Therefore, they believe advice should be tailored to the requirements of each sector.

7.104 The research conducted by Sung and Ashton (2005) was based on the CIPD survey (see paragraph 7.28). Even though the research was described as 'only an exploratory exercise' (Sung and Ashton, 2005:7), it gives an indication that HPW practices might be different across sectors.

7.105 The analysis allowed identifying four groups of HPW practices:

- **Similarly used to a high level** – this includes annual appraisal, structures induction training or formal feedback on job performance
- **Similarly used to a low level** – this includes share options for some employees, job rotation and staff associations
- **Similarly used in general** – for example, cross functional teams, flexible job descriptions and family friendly policies
- **Differently used by sectors** – for example, mentoring, continuous skills development programmes

7.106 Finally Sung and Ashton (2005) reinforced the concept of bundles of practices. They note that some of these bundles are more effective in some industrial sectors than others. They also suggest that HPW practices are used in different ways, in different sectors, to achieve different business objectives.

#### ***(f) Employer demand for skills***

7.107 No evidence was identified in relation to skills utilisation and increased employer demand for skills. However, we draw on the available information about external topics that affect the demand of skills and its utilisation.

7.108 Research from Green et al. (2002) highlighted that the demand for skills has risen in recent decades. Green suggests this is due to the nature of the labour

market in terms of an increased proportion of: higher skilled occupations; jobs requiring higher levels of qualifications; and jobs where degree qualifications are considered very important or essential to do the job.

7.109 Mason (2004) suggested that business strategy is an important driver of employee demand for skills. Mason suggests that high value added products tend to be positively associated with high workforce skill levels and low value added product strategies are positively associated with low workforce skill levels.

7.110 James (2006) suggested that the level of value of production has an impact on skills utilisation. James suggests that low cost production involves competing on price with standardised approaches to markets and operations, simple repetitive tasks, low skill requirements and effectively a 'de-skilled' workforce and therefore demand for skills is low. In contrast, the differentiation route is based on competing on quality and innovation with customised approaches and high skills utilisation and therefore demand for skills is higher.

7.111 James (2004) saw market positioning as creating external demand from customers that influence the way firms operated and, in consequence, their internal demand for skills. This then dictated the required skill levels of staff, which would need to be utilised to satisfy customer needs, and influenced the demand for learning.

7.112 Finally, there is evidence that the extent of innovation in an organisation alters the demand for skills. Advanced economies tend to be associated with an increasing demand for high skilled workers and a decreasing demand for low skills (Tamkin 2008).

### **Conclusion of the links between skills utilisation and contextual factors**

7.113 The evidence is limited in terms of the nature and extent of specific practices that employers have used to identify and utilise employee's skills.

7.114 The literature identifies the existence of a link between skills utilisation and productivity, workplace matters, leadership and management and business sectors. However, no conclusion around the type of relationship (i.e. causal) can be made. In addition, the evidence on topics such as productivity and leadership and management is greater than the evidence identified for the rest of the contextual factors.

7.115 Finally, no evidence was identified in relation to skills utilisation and increased employer demand for skills. However, we draw on the available information regarding the demand of skills.

## 8 CONCLUSIONS, GAPS AND RECOMMENDATIONS

8.1 This report has presented the available literature on the topic of skills utilisation mainly between 2000 and 2008 including publications and websites. This final chapter provides CFE's conclusions regarding the current evidence base, summarises the knowledge gaps and provides recommendations for further work to advance this agenda.

### Conclusions from the evidence base

8.2 The concept of skills utilisation is becoming increasingly discussed in both UK and international literature, and is regaining currency in policy discourse. However, much of the literature related to the topic does not explicitly use the term (see chapter 2). Moreover, the majority of the literature focuses on skills acquisition rather than the utilisation of skills and as such evidence on skills utilisation is limited.

8.3 The literature review has been reliant on the sources identified using the key and associated terms (see Figure 3.1), and selection based on the document abstract. Due to a lack of definition and use of the term skills utilisation in the literature it was essential to make judgements regarding which documents are relevant for inclusion.

8.4 There is no established definition of skills utilisation. There appears to be a consensus within the literature that skills utilisation is 'ensuring the most effective application of skills in the workplace'. The following definition emerges from our analysis of the available literature for consideration by policy makers;

*'Skills utilisation is about ensuring the most effective application of skills in the workplace to maximise performance, through the interplay of a number of key agents (e.g. employers, employees, learning providers and the state) and the use of a range of HR, management and working practices. Effective skills utilisation seeks to match the use of skills to business demands/needs.'*

8.5 Despite a general definition on what is meant by the term skills utilisation, approaches to its application have been varied (as the evidence presented on chapters 4, 5 and 6 showed) – across countries and within businesses – many of which are not recognised as skills utilisation within that particular country or business.

8.6 In order to present a disparate range of material in a meaningful way we have categorised the approaches on two key variables: the agents involved, and the driver for change. From this categorisation it has been possible to identify three bodies of evidence: the market driven workplace approach, the state driven workplace approach and the holistic approach. Literature identified related to the implementation and impact of each approach has been presented in earlier Chapters.

- 8.7 Approaches to skills utilisation appear to have originated within the workplace by individual employers striving to improve business performance through improved utilisation of the skills of their workforce (market driven workplace approach). Building on this, a number of countries have sought to encourage employers to effectively use the skills of their workforce and have developed an overarching strategy and specific programmes to support individual businesses in this quest (state driven workplace approach). In addition to this, there is evidence of some countries taking a broader perspective focused on raising national prosperity through involving employers, employees, learning providers and the state in skills utilisation (holistic approach) to achieve industry wide and national impacts on productivity.
- 8.8 Each approach represents a different focus (or lens) that can be taken to viewing the issue of skills utilisation. The approaches build on each other and share the workplace as the core structure for its implementation.
- 8.9 Within the approaches to skills utilisation, the vast majority of state interventions were one-off, time restricted initiatives delivered by governments through a discrete pot of funding. There was little evidence of state interventions to create a systematic change in the culture of skills utilisation within a nation.
- 8.10 With no established definition of skills utilisation, a range of approaches taken within different countries and workplaces, and much of the literature not using the term skills utilisation, it is challenging to establish its impact. In some cases, the evidence presented in the previous chapters is not conclusive in relation to the questions posed in the research specification (see Appendix A). Further research such as secondary analysis or primary data collection is therefore seen as required.
- 8.11 It is also important to note that a literature review is not able to give the answer as to what should be done to achieve effective skills utilisation where the practice is not well understood. It has, however, been possible to draw on the available literature presented to make suggestions for further work to progress this agenda.

### **Gaps analysis**

- 8.12 As presented throughout this report, the evidence base on skills utilisation is limited in terms of its definition, implementation and impact.
- 8.13 In particular, while a range of literature exists on the approaches to skills utilisation, much of it fails to explicitly explore skills utilisation as an outcome. Although evidence exists of the implementation of HPW (market driven approach) there is limited evidence of the practical workplace interventions in the holistic approach to skills utilisation. Overall, the lack of evidence on the measurement, benchmarking and impact of skills utilisation makes conclusions on future policy direction more problematic.
- 8.14 The following summary points emerge as research and policy gaps from the available evidence base on skills utilisation.

- A lack of consensus and understanding of skills utilisation
- A need to assess the evidence on the role of skills utilisation including HPW in varying business performance
- Limited consensus in quantitative measures of skills utilisation
- Further evidence is required on the 'how' and 'why' of implementation of HPW across a broader range of sectors and business sizes

8.15 In addition to the summary points made above, the following gives more detail on the knowledge gaps that are particularly relevant to note:

### ***Extent of skills utilisation***

8.16 There is little consideration in the available literature of the extent of skills utilisation when compared between countries or across businesses.

### ***Implementation and best practice***

8.17 This report has highlighted evidence on the topic of HPW as a means to achieving skills utilisation. The evidence in this area is mainly limited to manufacturing and large businesses. There is limited information available regarding practical workplace examples of processes with the outcome of skills utilisation across a range of other sectors and business sizes.

8.18 There is a lack of evidence of practical examples of implementation within workplaces from the international evidence presented, where the focus tends to be on actions by the state.

8.19 Limited evidence was also identified that considers the links between skills utilisation and the role of individual employers in matching employees' skills to their job.

### ***Impact***

8.20 A majority of the available information on impact related to specific programmes or policies with little consideration of the overall impact of skills utilisation at a workplace, industry or national level.

8.21 A majority of the interventions identified had not been formally evaluated or were at too early a stage to identify any impact. Much of the international literature focused on descriptions of the strategy rather than activity and impact of that strategy.

8.22 Holistic approaches to skills utilisation were particularly difficult to consider in terms of impact due to a lack of available information, and the difficulty of measuring outcomes from such holistic approaches.

8.23 There was a lack of information identified on the overall measurement and benchmarking of skills utilisation, particularly in terms of indicators that could be replicated across time and sectors, and to measure the activity and take up of skills utilisation.

8.24 There was a lack of evidence on the links between skills utilisation and productivity, workplace matters, increased employer demand for skills, management practices and performance.

### ***Implication of research gaps***

8.25 Of the gaps identified we would recommend that in taking forward skills utilisation it will be important to ensure that as many as possible of these gaps are filled. In particular, more information is required in the following areas:

8.26 There is a need to better understand practical changes within workplaces that take place alongside state interventions. The workplace is at the core of all the approaches and the international evidence doesn't provide enough information to effectively evaluate the link between state interventions and workplace practices.

8.27 The majority of the international interventions have not been formally evaluated or at a too early stage to identify any impact. For administrations looking to learn from international examples more evidence is required on the impact of interventions rather than descriptions of activity.

8.28 Importantly, and as recognised by the UK Commission, to gain more information on working practices and impact, more information on the overall measurement and benchmarking of skills utilisation is required.

8.29 It is useful to note that the programme of work underway from the UK Commission will provide additional intelligence in the area of HPW. In particular, the project will provide further evidence on gaps identified in this review in relation to;

- Types of HPW practices put in place by a range of different employers
- The way in which HPW effects the performance of organisations and understand what sorts of practices have resulted in the most superior performance

8.30 The project will also focus on developing a 'business case' for employers to adopt HPW, an assessment of effectiveness of products and services that promote the take-up of HPW and the identification further policy interventions<sup>11</sup>.

### **Recommendations moving forward**

8.31 The disparate information on the topic of skills utilisation creates difficulties in achieving a consensus around approaches to effective skills utilisation, its implementation and impact. This needs to be addressed in order to move forward the agenda in each of the four home nations of the UK. Consideration of the following areas by respective home nation governments would particularly allow progress to be made:

---

<sup>11</sup> For more information visit: <http://www.ukces.org.uk/Default.aspx?page=4629>

### ***Established definition***

8.32 With no established definition, use and understanding of the topic remains low. Work is needed to firm up an agreed definition of skills utilisation to be used consistently in discourse regarding this agenda.

### ***Agreed approach***

8.33 To develop a successful approach to skills utilisation it is essential to agree and clearly articulate why it is required in the first place. As we have seen from the literature presented, different approaches to skills utilisation are driven by two main variables – the number of agents for delivery and the driver for change. Once these have been established the approach in terms of what activity needs to be undertaken becomes much clearer.

8.34 In order to establish the most appropriate approach for a nation to take forward it would be beneficial to undertake a comparative analysis of the relevance of each approach for the specific economic and social context of delivery, considering the advantages and disadvantages of each approach.

### ***Defined roles and responsibilities***

8.35 To achieve effective skills utilisation it is essential to identify clear roles and responsibilities for each agent or stakeholder involved. Gaining buy-in from all agents involved appears essential in achieving effective skills utilisation. It will be important to agree the agents involved; the interdependencies between them; and establish the drivers for involvement. Developing plans for successful engagement and dissemination of the agreed approach to skills utilisation would be beneficial.

8.36 Identification of work streams that could underpin a nation (regional, or sectoral) specific approach to skills utilisation could also be beneficial to take the skills agenda forward.

### ***Framework for measurement***

8.37 In order to achieve a consistent and comparable basis for measuring skills utilisation it would be useful to develop a framework for measurement. This would allow the benchmarking and tracking of progress on key indicators of success for any skills utilisation strategy.

### ***Underpinning programmes***

8.38 To deliver any strategy for skills utilisation it appears important to establish key activities or programmes for delivery which could include sector specific projects or a bespoke development fund. Gaining a fuller understanding of what works in increasing employer demand for skills and deployment, and what works in specific sectors and business types will be essential in informing the development of any specific programmes or fund underpinning a strategy for skills utilisation.

### ***Links with wider policy levers***

8.39 When pursuing a strategy towards skills utilisation it is important to gain a better understanding of the links between skills and wider economic development policy. This would highlight which economic development policy levers can be used to support the effective utilisation of skills in the workplace.

### ***Delivery plan***

8.40 Finally, it would be useful to consider the development of a delivery plan to support the delivery of any strategy and underpinning programmes or fund. This delivery plan could include detailed objectives, outcome and impact measures, identification of risks and challenges, strategies for engagement and milestones for delivery.



## 9 REFERENCES

- Ahlgren, L., Riddell, S., Tett, L. and Weedon, E. (2007) *Experience of workplace learning in SMEs: lessons for good practice*, Centre for Research in Education, Inclusion and Diversity, Moray House School of Education, University of Edinburgh
- Alasoini, T (2001) *Introduction to the Finnish National Workplace Development Programme (1996-2003): An Insider's View* – Paper prepared for Peer Review Workshop, Helsinki, 24-25 Sept 2001
- Alasoini, T., Kyllonen, M. and Kasvio, A. (1997) *Workplace Innovations A way of promoting competitiveness, welfare and employment*, Helsinki: Ministry of Labour, pp. 53-71
- Arnal, E., Ok, W. and Torres, R. (2001) *Knowledge, Work Organisation and Economic Growth*, OECD Labour Market and Social Policy Occasional Papers, No. 50
- Arnkil, R. (2004) *The Finnish workplace development programme: A small giant?*, Concepts and Transformation, Vol. 9, No. 3, pp. 249-278
- Applebaum, E., Bailey, T., Berg, P., Kalleberg, A. (2000) *Manufacturing advantage: Why high performance work systems pay off*, London, Cornell University Press
- Ashton, D., and Sung, J. (2002) *Supporting Workplace Learning for High Performance Working*, Geneva: ILO
- Becker, B. and Huselid, M. (1998) *High performance working systems and firm performance: a synthesis of research and managerial implications*, Research in Personnel and Human Resources Management, Vol. 16, pp.53-102
- BERR (2008a) *Regional Competitiveness and State of the Regions*, The Department for Business, Enterprise and Regulatory Reform
- BERR (2008b) *The 2007 productivity & competitiveness indicators*, The Department for Business, Enterprise & Regulatory Reform
- Bloom, N., Dorgan, S., Dowdy, J. and Van Reenen J. (2007) *Management Practice & Productivity: why they matter*, November 2007, Stanford
- Blundell, R., Dearden, L., Meghir, C. (1999) *Work-related training and earnings*, Institute for Fiscal Studies
- Boxall, P. and Purcell, J. (2000) *Strategic human resource management: Where have we come from and where should we be going*, International Journal of Management Reviews, Vol. 2, No. 2, pp. 183-203.
- Chen, Z., Takeuchi, N. and Wakabayashi, M. (2005) *Managerial skill utilization: work environment, gender, and training incentive*, International Journal of Human Resource Management 16:5 pp.786-808

CIPD and EFF (2003) *Maximising Employee Potential and Business Performance: The Role of High Performance Working*, Chartered Institute of Personnel and Development

CIPD (2002) *Developing Managers for Business Performance*, Chartered Institute of Personnel and Development

Coates, D. and Max, C. (2005) *Healthy work, productive workplaces: Why the UK needs more good jobs*, The Work Foundation

Combs, J., Liu, Y., Hall, A. and Ketchen, D. (2006) *How much do high-performance work practices matter? A meta-analysis of their effects on organizational performance*, Personnel Psychology, Vol. 59, pp. 501–528

Datta, D.K., Guthine, J.P. and Wright, P.M. (2005) *Human resource management and labour productivity: Does industry matter?*, Academy of Management Journal 48, pp. 135-145

Dearden, L., Reed, H. and Van Reenen, J. (2000) *Who gains when workers train? Training and corporate productivity in a panel of British industries*, Institute for Fiscal Studies, Working Paper no. 00/04, London

Delaney, J. and Huselid, M. (1996) *The impact of human resource management on perceptions of organisational performance*, Academy of Management Journal, 39: 349–69

DELNI (2006) *Success Through Skills – The Skills Strategy for Northern Ireland: A Programme for Implementation*, Department for Employment and Learning

Department of Health (2000) *The NHS Plan*, London: Department of Health

DfEE (2001) *Opportunity and Skills in the Knowledge Driven Economy*, A final statement of the National Skills Taskforce, Nottingham DfEE.

Edwards, P. (2007) *The HPWS and the Small Firm*, IPA

Felstead, A. (2007) *How ‘Smart’ are Scottish Jobs? Summary Evidence from the Skills Surveys, 1997-2006*, Glasgow: Future Skills Scotland

Felstead, A., Gallie, D., Green, F., and Zhou, Y. (2007) *Skills at Work, 1986 to 2006*, London: DfES

Finegold, D. (1999) *Creating self-sustaining high-skill ecosystems*, Oxford: Oxford Review of Economic Policy

Finegold, D and Soskice (1988) *The failure of training in Britain: analysis and prescription*, Oxford Review of Economic Policy, Vol. 4, no3, pp 21-53

Green, F., MCintosh, S. and Vingoles, A. (2002) *The utilization of education and skills: evidence from Britain*, The Manchester School Vol. 70 No. 6, pp.792-811

Greenhalgh, C. and Stewart, M. (1987) *The effects and determinants of training*, Oxford Bulletin of Economics and Statistics, 49

Guest, D. (2006) *Smarter ways of working*, Sector Skills Development Agency: Catalyst

Guest, D. (2000) *HR and the bottom line: Has the penny dropped?*, People Management, Vol. 20, pp.26-31

Guthrie, J.P. (2001) *High-involvement Work Practices, Turnover and Productivity: Evidence from New Zealand*, Academy of Management Journal 44(1): pp. 180-190

Harley, B., Allen, B.C. and Sargent, L. (2007) *High Performance Work Systems and Employee Experience of Work in the Service Sector: The Case of Aged Care*, British Journal of Industrial Relations, Vol. 45, No. 3, pp. 607-633

Haskel, J. and Hawkes, D. (2003) *How much of the productivity spread is explained by skills? UK evidence using matched establishment / workforce survey data*, CeRIBA discussion paper

Huselid, M. (1995) *The impact of human resource management practices on turnover, productivity and corporate financial performance*, Academy of Management Journal, 38: 635-72

HM Government (2007) *World Class Skills: Implementing the Leitch Review of Skills in England*

HM Government (2005) *Skills: Getting on in business, getting on at work*

HM Treasury (2006a) *Productivity in the UK 6: Progress and New Evidence*

HM Treasury (2006b) *The Leitch Review of Skills – Prosperity for all in the Global Economy – World Class Skills*

Ichniowski, C.; Shaw, K. (1995) *Old dogs and new tricks: Determinants of the adoption of productivity-enhancing work practices*, Brookings Papers on Economic Activity: Microeconomics, Spring, pp. 1-65

Ichniowski, C., Shaw, K., Prenushi, G. (1997) *The effects of human resource practices on productivity: A study of steel finishing lines*, in American Economic Review, 87 (3), pp. 291-313

ILO (2000) *High Performance Work Research Project: Research Project Overview* (online)  
<http://www.ilo.org/public/english/employment/skills/workplace/case/caseow.htm>  
(accessed August 2008)

- Industry Skills Council (2006) *Forming Skills in a Mental Health Ecosystem*, Community Services & Health Skills Council Ltd
- IPA (2007) *High Performance Working: UKWON Journal*, February 2007, Involvement and Participation Association, London
- James, G. (2006) *Working Paper on Skills Utilisation*, South West Observatory & Skills & Learning Intelligence Module, Exeter: Exeter University
- James, G. (2004) *A Regional Skills Partnership for the South West of England: Strategic Options Report*, Otter KLI
- Kalleberg, A.L. (2006) *Beyond Profit? Sectoral Differences in High-Performance Work Practices*, *Work and Occupations*, Vol. 33, No. 1, pp. 271-302
- Keep, E., and Payne, J. (2002) *What Can the UK Learn from the Norwegian and Finnish Experience of Attempts at Work Re-organisation?* SKOPE Research Paper, No. 41
- Kersley, B., Alpin, C., Forth, J., Bryson, A., Bewley, H., Dix, G. and Oxennbridge S. (2006) *Inside the Workplace: Findings from the 2004 Workplace Employment Relations Survey*, London, Routledge
- Kersley, B., Alpin, C., Forth, J., Bryson, A., Bewley, H. Dix, G. and Oxenbridge, S. (2005) *Inside the Workplace: First Findings from the 2004 Workplace Employment Relations Survey*, DTI
- Kling, J. (1995) *High performance work systems and firm performance*, *Monthly Labor Review*, May, pp.29-36
- Lloyd, C. (2000) *High involvement work systems: The only option for UK high skill sectors?*, SKOPE Research Paper No. 11, Winter, University of Warwick
- Lloyd, C. And Payne, J. (2006) *Goodbye to all that? A critical re-evaluation of the role of the high performance work organisation within the UK skills debate*, *Work Employment and Society*, Vol. 20, pp.151-165
- MacDuffie, J.P. (1995) *Human resource bundles and manufacturing performance: Organizational logic and flexible production systems in the world auto industry*, in *Industrial and Labor Relations Review*, 48, pp. 197-221
- Marchington, M. and Wilinkinson, A. (2005) *Human resource management at work: people management and development*, London: CIPD
- Mason, G. (2004) *Enterprise product strategies and employer demand for skills in Britain: evidence from the employer skills survey*, NIESR, London.
- Mason, G. (1999) *Product strategies, work force skills, and 'high-involvement' work practices*, in P. Cappelli (ed.): *Employment practices and business strategies*, New York, Oxford, pp 193-216

McBride, A., Cox, A., Mustchin, S., Carroll, M., Hyde, P., Antonacopoulou, E., Walshe, K and Woolnough, H. (2006) *Developing Skills in the NHS*, Manchester: University of Manchester

McBride, A., Mustchin, S., Cox, A., Walshe, K., Hyde, P., and Antonacopoulou, E. (2005) *Mapping the progress of Skills Escalator Activities: Early Results from a Survey of Learning and Development Professionals within NHS Trusts*, Manchester: University of Manchester

Ministry of Labour Press Release, (2001) in Keep, E., and Payne, J. (2003) *What Can the UK Learn from the Norwegian and Finnish Experience of Attempts at Work Re-organisation?*, SKOPE Research Paper No,41, Coventry: University of Warwick, SKOPE

Monks, K. (2007) *The business impact of equality & diversity, the international evidence*, National Centre for Partnership and Performance, The Equality Authority

Morrison, D., Cordery, J., Girardi, A., and Payne, R. (2005) *Job design, opportunities for skill utilization, and intrinsic job satisfaction*, European Journal of Work & Organizational Psychology, Vol. 14, No. 1, pp. 59-79

Muldrow, T., Buckley, T, and Schay, B. (2002) *Creating high performance organisations in the public sector*, Human Resources Management, Vol. 41, No. 3 pp. 341-354

National Workplace Strategy (2008) Press Release: *New Study Reveals Compelling Business Case for Workplace Partnership, Diversity and Equality* (online), [http://www.workplacestrategy.ie/press/press\\_detail.asp?catId=267&zoneId=12&newSld=302](http://www.workplacestrategy.ie/press/press_detail.asp?catId=267&zoneId=12&newSld=302) (accessed August 2008)

NCPP (2008) *New Models of High Performance Work Systems, the business case for strategic HRM, Partnership and diversity and Equality Systems*, The Equality Authority

NCPP (2005) *Working to our advantage. A National Workplace Strategy*, National Centre for Partnership and Performance

Norwegian Ministry of Education and Research (2003a) *The Norwegian Competence Report*

Norwegian Ministry of Education and Research (2003b) *The Learning Conditions Monitor*, Fafo

ONS (2008) *International Comparisons of Productivity*, Office of National Statistics

OECD (2001) *The new economy: Beyond the Hype*, Paris, OECD

Osterman, P. (1994) *How common is workplace transformation and who adopts it?*, Industrial and Labor Relations Review, Vol. 47, No. 2, pp. 173-188

O'Connell, L (2003) *Productivity gains: Partnership's impact*, Update, The Bulletin of the National Centre for Partnership and Performance Issue 3

Patterson, M.G., West, M.A., Lawthorn, R. and Nickells, S. (1997) *The impact of people management practices on business performance*, People Management, No 22. London: IPD

Payne, J. (2008) *Skills in context: what can the UK learn from Australia's skill ecosystem projects?*, Bristol: The Policy Press

Payne, J. (2006) *The Norwegian Competence Reform and the Limits of Lifelong Learning*, International Journal of Lifelong Education, Vol. 25, No. 5, pp.477-505

Payne, J. (2004) *Workplace innovation and the role of public policy: evaluating the impact of the Finnish Workplace Development Programme: limits and possibilities*, SKOPE

Pettersen, B. (2003) *Validation of Non-Formal, Informal and Formal Competence in Norway*

Philpott, J., (2007) *Section 3 High Performance Working: The Utilisation of Skills*, in Skills and Economic Performance, SSDA

Prime II (2002) *Transfer of Learning: A Guide for Strengthening the Performance of Health Care Workers*, Baltimore: Jhpiego

Purcel and Hutchinson (2007) *Front line managers as agents in the HRM performance causal chain: theory, analysis and evidence*, Human Resources Journal 17 (1)

Queensland Government (2006a) *Skills Formation Strategies – Developing community and industry ecosystems*

Queensland Government (2006b) *ICT Skills Formation Strategy – Project Information Sheet*

Rambou, S, (2005) *Transfer of Learning: Constraints as Experienced by Management Trainees in the Private Sector*, Pretoria S.A: The University of Pretoria

Ramsay, H., Scholarios, D. and Harley, B. (2000) *Employees and high-performance work systems: testing inside the black box*, British Journal of Industrial Relations, 28 (4): 501–31

Reid G (2000) *The development and survival of new small businesses*. Centre for Research into Industry, Enterprise, Finance and the Firm, ST Andrews University

Scottish Government (2008) *Skills Utilisation Leadership Group* (online) <http://www.scotland.gov.uk/Topics/Education/Life-Long-Learning/skills-strategy/SkillsUtilisation> (accessed August 2008)

- Scottish Government (2007a) *Skills for Scotland: A Lifelong Skills Strategy*
- Scottish Government (2007b) *The government economic strategy*
- SDS (2007) *Our Vision* (online), <http://www.ukces.org.uk/Default.aspx?page=1> (accessed August 2008)
- Sianesi, B. (2003) *Returns to Education*, CEE mimeo
- Skillecosystem (2006) *About the Skill Ecosystem National Program* (online), [http://www.skillecosystem.net/about\\_project/](http://www.skillecosystem.net/about_project/) (accessed Aug 2008)
- Social Research (2008) *Research Specification Literature Review on Skills Utilisation*, The Scottish Government
- Sparham, E. and Sung, J. (2007) *High Performance Work Practices: Work Intensification or 'Win-win'?* Working Paper 50, Leicester: Centre for Labour Market Studies, University of Leicester
- SSDA (2006) *Skills for Business Network 2005: Employer Survey*, Research Report No 18, SSDA, Wath upon Dearne
- Sung J. and Ashton, D. (2006) *Sector Variations in the Use of High performance working practices to produce business outcomes*, Centre for Labour Market Studies, University of Leicester
- Sung, J. and Ashton, D. (2005) *High Performance Work Practices: Linking Strategy and Skills to Performance Outcomes*, DTI
- Syvanen, S (1999) *Developing municipal services for the aged: The role of participatory action research and concept-driven change*
- Tamkin, P. (2008) *Update of Literature on Skills and performance*, a report prepared for SSDA, The work foundation
- Tamkin, P. (2005) *The Contribution of Skills to Business Performance*, Brighton: Institute for Employment Studies
- Tamkin, P., Cowling, M. and Hunt, W. (2008) *People and the Bottom Line*, Brighton: Institute for Employment Studies
- Tamkin P., Giles L., Campbell M. and Hillage J. (2004) *Skills Pay. The Contribution of Skills to Business Success*, Brighton: Institute for Employment Studies
- Tracey, J., Tannenbaum, S. and Kavanagh, M. (1995) *Applying trained skills on the job: the importance of the working environment*, *Journal of Applied Psychology*, 80(2), pp.239-52

- UK Commission (2008a) *Invitation to tender Skills Utilisation Project, UK Commission for Employment and Skills*
- UK Commission (2008b) *Role of the UK Commission for employment and Skills* (online), <http://www.ukces.org.uk/Default.aspx?page=1> (accessed August 2008)
- VOX – Norwegian Institute for Adult Learning, *The Competence Development Programme* (online), <http://www.vox.no/templates/CommonPage.aspx?id=2639> (accessed August 2008)
- Walker, I. and Zhu, Y. (2003) *Education, earnings and productivity: recent UK evidence*, Labour Market Trends, March 2003
- Way, S. (2002) *High performance work systems and intermediate indicators of firm performance within the US small business sector*, Journal of Management, Vol. 28. No 6, pp. 765–785
- Weinstein, M.; Kochan, T. (1995) *The limits of diffusion: Recent developments in industrial relations and human resource practices in the United States*, in Locke, R.; Kochan, T; Piore, M. (eds.): *Employment relations in a changing economy*, Cambridge, MA, MIT Press.
- Welsh Assembly Government (2008) *Skills That Work for Wales – A Skills and Employment Strategy and Action Plan*
- WERS (2004) *The Workplace Employment Relations Survey 2004* (online) <http://www.wers2004.info/wers2004/wers2004.php> (accessed August 2008)
- Windsor, K. (2006) *Skills Ecosystem National Project Mid-term Report*, Australian Government
- Windsor, K. and Alcorso, C. (2008) *Skills in Context – A guide to the skill ecosystem approach to workforce development*, NSW Department of Education and Training
- Wood, S. (1999) *Human resource management and performance*, International Journal of Management Review, 1 (4), pp. 367-413
- World Bank (2008) *Gross domestic product 2007, World Development Indicators database* (online), <http://siteresources.worldbank.org/DATASTATISTICS/Resources/GDP.pdf> (accessed August 2008)
- The workplace productivity working group (2004) *The workplace productivity challenge*, Department of Labour, New Zealand



## **APPENDIX A: QUESTIONS FROM THE RESEARCH SPECIFICATION**

### ***Skills utilisation – definition, extent***

How is skills utilisation defined – is it different in different sectors and geographies?

How do the definitions used in Scotland and the rest of the UK compare to those used elsewhere?

What is the nature and extent of skills utilisation across the Scottish and UK economy?

If there is an issue about whether and how this varies across different businesses, including in different geographical areas?

How does the nature and extent of skills utilisation across Scotland and the UK compare to other nations?

What is the relationship between HPW and skills utilisation? To what extent is HPW a route to effective skills utilisation?

### ***Skills utilisation – implementation and best practice***

What factors drive or hinder the full use of skills by employees in their workplace?

How do firms encourage or discourage their employees to make full use of their skills? What practices are deployed? How do these relate to HPW?

How do firms identify the skills their employees have, and match such skills to their job?

How widely are employers actively identifying the skills of their workforce and seeking to use such skills?

How do firms identify the skills they need for their business and what strategies and mechanisms do they use to find the people with those skills?

Which management practices are the most important in terms of increasing business performance? Are they related to skills utilisation?

### ***Skills utilisation - impact***

What evidence is there of a relationship between skills utilisation and productivity?

What evidence is there of a relationship between skills utilisation and other workplace matters, including its impact on equalities issues?

What does the evidence tell us about best practice in the implementation of skills utilisation? Is such practice defined by different business sectors?

Is there any evidence of a relationship between skills utilisation and increased employer demand for skills?

Is there any evidence of a relationship between management and leadership practices and skills utilisation?

What evidence is there to link the set of management practices with improvements in performance?

How can effective skills utilisation be benchmarked and measured?

***Policy interventions and stimulating improved skills utilisation***

What policy interventions are (or are not) effective in improving skills utilisation?

What actions to stimulate business growth and employer demand for skills can best improve skills utilisation?

***International and past knowledge***

What can we learn from experience in the UK and internationally, including from Ireland and Scandinavia (e.g. Finland)?

What can we learn from what has been done in the past?

***Gaps and areas of interest***

What are the gaps in the evidence base?

## **APPENDIX B: DATABASES AND WEBSITES**

### ***Databases***

- Applied Social Sciences Index and Abstracts (ASSIA)
- PsycINFO, British Education Index (BEI)
- Education Resources Information Centre (ERIC)
- EBSCO
- Proquest
- CSA Social Sciences
- Electronic Journals Service
- International Bibliography of the Social Sciences (IBSS)
- Social Sciences Citation Index
- Social Sciences Research Network

### ***Websites***

- Chartered Institute of Personnel and Development
- Department for Business, Enterprise & Regulatory Reform
- Department for Children, Schools and Families
- Department of Employment and Learning
- Department for Innovation, University & Skills
- Economic & Social Research Council Centre on Skills, Knowledge and Organisational Performance
- EEF
- Forfas
- Futureskills Scotland
- Futureskills Wales
- HM Treasury
- Institute for Employment Studies
- International Labour Organization
- Investors in People UK
- Involvement and Participation Association
- Joseph Rowntree Foundation
- Learning and Skills Council
- National Institute for Economic and Social Research
- Scottish Manufacturing Advisory Service
- Scottish Government
- Skills Ireland
- The Work foundation
- UK Commission for Employment and Skills

## APPENDIX C: SPREAD OF LITERATURE

The following table shows the summary of the spread of the literature selected (composed by publications and websites). At this stage, the abstract was the source to establish the links of the references and the associated terms.

The percentage column shows the proportion of the literature that was related to a specific associated term. The total will be greater than one, mainly because one reference could be related to one or more associated terms.

<b>Associated term</b>	<b>Percentage (%)</b>
HPW / smarter working	25
Economic growth and productivity	20
Skills development	19
Business performance	17
Workplace design	13
Competitiveness and profitability	8
Skills utilisation	7
Workforce / organisational development	6
Well being	6
Skills ecosystem	6
Leadership and management	6
Skills usage	5
Skills deployment	5
High skills jobs	5
Job design	5
Motivation	5
Job progression	3
Job satisfaction	3
Application of competencies	2
Workforce innovation	2
Employer attitudes	2
Employment	2
Incentives and rewards	2
Recruitment	2
Integrated skills	1
Underutilisation of skills	1
Overeducated workforce	1
Demand led system	1
High value jobs	1
Induction	1
Labour market	1
Return on investment	1
Skills gap	1
Skills shortage	1
Social capital	0
Social mobility	0

## APPENDIX D: LIST OF ACRONYMS

ASSIA	Applied Social Sciences Index and Abstracts
BEI	British Education Index
BERR	The Department for Business, Enterprise and Regulatory Reform
CDP	Competence Development Scheme
CIPD	Chartered Institute of Personnel and Development
CREST	Critical Enabling Skills Training
CSHISC	Community Services and Health Industry Skills Council
DCSF	Department for Children, Schools and Families
DELNI	Department of Employment and Learning
DfES	Department for Education and Skills
DIUS	Department for Innovation, Universities and Skills
DTI	Department of Trade and Industry
EEF	Engineering Employers Federation
EPA	Environmental Protection Agency
ERIC	Educational Resources Information Centre
GSWRA	Glasgow South West Regeneration Agency
HPW	High Performance Working
HPWP's	High Performance Working Practices
IBSS	International Bibliography of the Social Sciences
liPUK	Investors in People UK
ILO	International Labour Organisation
IPA	Involvement and Participation Association
LSC	Learning and Skills Council
MNCs	Multi-National Companies
NCPP	National Centre for Partnership and Performance
ONS	Office of National Statistics
OECD	Organisation for Economic Co-operation and Development
PIU	Performance and Innovation Unit
RAG	Research Advisory Group
RCN	Research Council of Norway
SCQF	Scottish credit and qualifications framework
SKOPE	ESRC Centre on Skills, Knowledge and Organisational Performance

SLIM	Skills and Learning Intelligence Module
SME	Small to Medium size Enterprise
SSC	Sector Skills Council
SSDA	Sector Skills Development Agency
UKWON	UK Work Organisation Network
VET	Vocational Education and Training sector
VOX	Norwegian Institute for Adult Education
WEA	Workers Educational Association
WERS	Workplace Employment Relations Survey

ISSN 0950 2254  
ISBN 978 0 7559 7354 5  
(Web only publication)

[www.scotland.gov.uk/socialresearch](http://www.scotland.gov.uk/socialresearch)

RR Donnelley B58771 12/08

