

ISSN 1466-1535

**A case where size matters: A preliminary investigation into the  
institutionalisation of skill formation and firm size**

**Research Paper No. 60 Autumn 2005**

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## **Editor's Foreword**

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## **Abstract**

For the last three decades there has been a tendency in most of the older industrial countries to see SMEs as ‘failing’ to invest in training. More recently, there have been voices which have questioned this belief, not least from within the small business community. This is part of a wider realisation that SMEs are different from the larger enterprises when it comes to the use and value of formal training courses. This paper examines the issue in more detail. It argues that as organisations grow in size, the process of skill formation becomes institutionalised. This involves the processes of formalisation, differentiation and delegation which transform the context within which learning and skill formation take place. This means that learning and the associated skill formation process take on different characteristics in smaller and larger organisations. However, the institutionalisation of learning and skill formation does not necessarily have any impact on the outcome of the process either in terms of the effectiveness of the learning and training processes or the level of skills delivered. The paper concludes with a brief examination of the implications for policy.

## **Introduction**

The current literature presents two contrasting views on the process of skill formation in small and medium sized enterprises (SMEs). The dominant approach is that SMEs under-invest in training because they make less use of formal courses. This lack of formal training among SMEs has been well established in the literature and documented extensively in the UK Learning and Training at Work surveys. As formal training courses are perceived by both academics and policy makers to be the manifestation of company and individual investments in human capital<sup>1</sup> this immediately raises the question of why SMEs should be ‘failing’ to invest in skills which are seen as essential to company success and to the productive base of the nation. This view of SMEs is that they are just smaller versions of larger companies (Westhead and Storey, 1997; Hill and Stewart, 2000). It follows from this that the difference between micro and small enterprises and medium and larger enterprises is simply one of scale. The lower level of formal training found in SMEs is explained either as ‘ignorance’ on the part of employers or ‘market failure’ due to a variety of supply and demand side features such as their short-term perspective which prevents the recognition of the longer term benefits of training (Westhead and Storey, 1997).

A variant of this theme is to accept that SMEs are deficient in terms of their investment in skills but to recognise that their needs may be different in some respects from those of larger enterprises and therefore require a different response from policy makers. However, the recommendations are still to provide some form of formal training. Vickerstaff (1995) and Bennett (1995), among others, have undertaken research in this area to help government agencies deliver support for SMEs and address this problem. However, perhaps the major exponent of this perspective is Matlay. Referring to the Bolton Report on Small Firms in 1971, Matlay states, ‘One of the most important and worrying aspects to emerge from the findings of the report related to the apparent lack of vocational education and training (VET) prevalent among small business owner/managers and their workforce’ (Matlay, 2002: 504). He goes on to remark that ‘... since the publication of the Bolton Report (1971) the levels of VET and skill of present-day small business owner/managers and their workforce have remained largely the same’ (Matlay, 2004: 505). Lack of training in SMEs is

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<sup>1</sup> For a discussion of the limitations of the economists' view of human capital and their use of qualifications and formal training as an index of skill see Ashton (1998).

therefore seen as a major cause of their low productivity. He concludes his analysis of government interventions aimed at helping SMEs with the statement that 'It is recommended, therefore, that policy makers should consider the implementation of discerning training and support initiatives that would focus exclusively upon the specific needs of micro and small business owners/managers and their workforce (Matlay, 2004: 512)'

In recent years a contrasting line of argument has developed, taking a different view of the problem. This is that SMEs have fundamentally different training needs from larger enterprises and these are adequately met by the informal learning that takes place within them. Case study work by Sung, Raddon and Ashton (2000) and Tillaart, et al (1998; 1998a) had suggested that there is a considerable amount of learning taking place in smaller enterprises, but that is essentially informal in character. This led Ashton and Sung (2001) to argue that small firms had unique training and learning needs which differ from those in medium sized companies, an argument supported by further research by Hughes et al (2002) and Doyle and Hughes (2004).

In 2002, by extending the definition of training beyond formal courses to include '...any activities at all through which managers and workers improve work-related skills and knowledge' Kitchin and Blackburn's national survey revealed that a great deal of such 'training' was undertaken in micro and small enterprises, albeit of an informal nature; a similar finding to that of Ridoutt et al, (2002) and Smith et al, (2002) in Australia. This in turn led the UK Small Business Council, the industry body for small companies, to call for government to 'Recognise and support informal learning - qualifications are not always an appropriate measure of skills and employability' (Gemmell 2003: 1) as one of its top five priorities. Here, SMEs are seen to be undertaking a considerable amount of training, the only difference being that it is informal in nature, as one of their recent publications puts it, 'Small businesses train more than government recognises; they have a different but equally valid method of training.' (Small Business Council, 2003: 2).

We argue that in order to take our understanding forward we have first to step back from this political debate and to ask more fundamental questions about the characteristics of the skill formation process. Underlying this debate are two very different questions. The first is why the process of skill formation takes on different

forms in organisations of varying sizes, why is it that larger companies use more formal approaches to learning and skill formation? The second is whether the formalisation of training leads to higher levels of skill formation? If the latter is correct, then there is a case for government intervention in the form of making formal courses available to SMEs. However, if informal approaches to learning can deliver equivalent levels of skill, then the provision of formal training may be a waste of national resources.

In taking this step back we speak of skill formation rather than training. The concept of skill formation allows us to discuss both informal and formal learning<sup>2</sup> as part of a broader process involved in the transfer and acquisition of the knowledge and skills required for performance in the workplace<sup>3</sup>. Moreover, if we conceptualise it as a process through time, we can then focus on the conditions under which, as firms grow in size, the process of learning becomes formalised as training. This in turn will enable us to start to explore the extent to which this more formalised process of learning is any more effective in enhancing skill levels and performance than the informal methods it replaces. Essentially, we argue that as firms grow in size they institutionalise the process of skill formation. The context in which the learning and training takes place becomes more formal and rationalised, but this does not necessarily mean that the outcome is a higher level of skill formation. In some instances, formal learning may be associated with higher level skill acquisition but in others it may not, such outcomes are a product of different sets of factors which we intend to deal with in a future paper<sup>4</sup>.

### **Analysis**

As the work of Fuller and Unwin (2003) and others has shown, there is far more to the process of skill acquisition than the use of formal instruction. Central to our current understanding of learning is the view that informal learning and formal training are inextricably linked to the context in which the broader process of skill

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<sup>2</sup> For a discussion of the problems associated with the informal/formal learning dichotomy see Fuller, et al (2003).

<sup>3</sup> There are other facets to skill formation as this refers also to the knowledge and skills required to function as citizens and family members as well members of the local community. Here we are only concerned with the knowledge and skills required for performance in the workplace.

<sup>4</sup> See Ashton, D. and Sung, J. 'Toward a general theory of skill formation: understanding the drivers of training and learning at the level of the firm', forthcoming.

formation is located. Our starting point is therefore with the very basic questions, why should learning take on a more informal character in small and micro firms, and what then happens to the process of skill formation as it becomes institutionalised in larger firms?<sup>5</sup>

### **Institutionalising Skill Formation**

Building on the earlier work of Atkinson and Meager (1994) and Ridoutt *et al* (2002)<sup>6</sup> we break down the institutionalisation of the skill formation process into three separate but related component processes; formalisation, differentiation and delegation. By formalisation, we refer to the degree of formality used in the relationships involved in the skill formation process, whether they are shaped by custom and practice at one end of the continuum or by explicit formal written rules and regulations at the other. This takes a number of forms, for example, at one end of the continuum the transfer of knowledge involved in the process is done incidentally through people observing the behaviour of others during their day-to-day interaction. At the other end, however, it is done through formal procedures, where the expectations of what is to be learnt are written down and where the acquisition of the knowledge transmitted is tested.

By differentiation, we refer to the degree of specialisation involved in the inputs to the skill formation process. At one end of the continuum this may involve just one person being involved in the process of identifying what is to be learnt and in the transmission of knowledge and skills, whereas at the other end it may involve a series of specialists, some of whom are involved in identifying 'training needs', others in designing the curriculum, and others in teaching in a training centre or classroom. By delegation, we refer to the degree to which the authority to decide what is to be transmitted and in what form, as well as how it is transmitted, is embodied in one person, such as the owner, or whether it is delegated to managers and/or employees, who then control different aspects of the process of skill formation.

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<sup>5</sup> Here we are responding to the call from David Storey of the Centre for Small and Medium-sized Enterprises, for a fresh look at training in small companies.

<sup>6</sup> Both Atkinson and Meager have identified these components in their analysis of the points of transition in organisational growth, but not as aspects of the institutionalisation of the skill formation process. Ridoutt *et al* provide a discussion of formalisation, but not the other component processes.

By focussing on each of these processes in turn, we are able to identify the different ways in which the relationships involved in the institutionalisation of the process of skill formation are transformed over time. We argue that, as firms grow in size, these three processes combine to generate different contexts for the process of skill formation and the performance of activities<sup>7</sup>. Here we highlight two such contexts, namely that of the micro and small firm (M&SE), characterised by informal relationships, minimal differentiation of roles and little or no delegation of authority, and that of the medium and large organisation (M&LE), characterised by high levels of formality, highly differentiated roles and extensive delegation of authority. We have conceptualised this in dichotomous terms for two reasons. Firstly, because of the need to highlight the fact that some firms may encounter a distinct transition phase as they move from being a M&SE to a M&LE. Secondly, because of the need to highlight the different ways in which individuals experience the process of skill formation in these two contexts.

We see all three processes as being responsible for transforming the character of the relationships within which learning takes place and therefore having a direct impact on the process of skill formation. By separating them out analytically we can identify their differential impact on this process.

In embarking on this task we have also to be aware of the confusion in the literature over how differences in firm size are categorised. For some countries such as Norway and Switzerland, small firms are defined as less than 20 employees, while large firms are more than 100 employees. For the EU, a small firm is 10-49 and a large is 500 plus employees. As countries and researchers utilise different definitions, there is a danger that we may not be comparing like with like in our analysis of SMEs<sup>8</sup>. The existence of diverse definitions suggests either considerable national variations in the characteristics and form of SMEs, or considerable uncertainty in

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<sup>7</sup> We are deliberately restricting this discussion to private sector organisations, hence the use of the term enterprise or firm. There are two reasons why this process may be different in public sector organisations. First, because public sector organisations have a different 'market environment' where they are subject to political directives rather than 'market forces'. Second, because small organisations within that sector are usually subject to the same bureaucratic rules and procedures as large organisations and this changes the context in which learning and skill formation occurs.

<sup>8</sup> For a discussion of these differences see Trouve, (2001: 129)

official policy circles about the nature and characteristics of SMEs. We argue that the latter is the more likely explanation.

What this confusion has done is to obscure the differences in the impact of size on the process of skill formation as manifest in firms at different stages of growth. What we argue is that there are very real differences between micro enterprises and small enterprises on the one hand, and medium and larger sized enterprises on the other. These differences are not arbitrary or just a matter of semantics, but reflect important differences in the types of relationships we find in these firms, which in turn impact on the process of skill formation.

In order to identify the points or stages in the growth of firms at which these differences in the process of skill formation are manifest, we have used two different data sets. One of these was from a study of SMEs in Leicestershire in 2000 (Sung, Raddon and Ashton, 2000), the other a study of SMEs in Singapore in 2001<sup>9</sup>, both conducted by the Centre for Labour Market Studies (CLMS). These enable us to explore the points at which the size of enterprises starts to have a different impact on the use of training and development practices. In some of the three component processes, but not all, the results do reveal significant points at which we can identify a 'step change' in the use of management and human resource development practices. However, the points in the size scale at which these breaks appear do not necessarily coincide with official categories, a point we elaborate below. The one official definition which comes closest to the breaks we have identified is the EU one, which defines micro enterprises as 1-9, small 10-49, medium 50-249 and large 250+ employees<sup>10</sup>.

### **Skill Formation in Micro and Small Enterprises**

The most important factor which defines the relationships within micro and small firms is of course their small size - these are very small organisations, usually of between 2 and 30 people. Sometimes they are no bigger than a nuclear family and indeed are often synonymous with the nuclear or extended family (Matlay, 2002a).

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<sup>9</sup> This survey was conducted by CLMS in association with the Singapore Standards and Productivity Board (now known as SPRING) in 2001. The survey focuses on training and development issues and high performance working. No formal report was produced as the results were for internal consumption initially.

<sup>10</sup> Commission Recommendations, 6 May 2003 (2003/36/EC)

Frequently, the whole staff will be seeing each other and interacting with each other on a daily basis. These relationships are personal and usually characterised by high levels of informality that permeate all aspects of skill formation. However, this does not mean that all are treated equally. As Matlay (2002) has shown, there are important differences in the relationships between family members within these firms and non-family members. Family members are given priority in the allocation of resources for learning with a longer time frame being used for their development, whereas non-family members are treated as dispensable and therefore trained only for their immediate job. In many respects a similar situation is found in larger firms where graduates are fast-tracked for senior management jobs, with considerable resources devoted to their 'development' while others are trained only for their current job (Ashton, 2004). Equally, women family members often have lower access to these learning and training resources than men, and are often not taken seriously as candidates when training family members for succession (Martin, 2001).

The second defining feature is that these relationships often function against the background of high levels of external 'uncertainty' (Storey, 1994). For the owner, the dominant concern is often that of securing the income and turnover necessary to sustain the employment of staff and keep the firm afloat, to pay the wages and cover overheads and fixed costs. They often operate in markets characterised by intense competition and with low margins (OECD, 2000) and face additional threats not only from new entrants but also from new regulations, red tape and customers who fail to pay. This environment creates a mentality of 'short-termism' among owners and strategies, which are essentially reactive in nature (Hill and Stewart, 2000). Many owners are pre-occupied with problems such as cash-flow, meeting the demands of regular customers and the day-to-day problems of sustaining the output of goods or services (Westhead and Storey, 1997). In Australia, Huang and Brown (1999) found that competitive market conditions provided by far the most important problems facing Australian SMEs, cited by over 40% of respondents, compared with only 15% reporting problems with internal management issues.

Of course, not all micro enterprises are dominated by such high levels of uncertainty, some may have niche markets which are more predictable. In other circumstances, as in Japan where the (micro) firm has a sub-contracting relationship,

this may generate higher levels of 'external' certainty (Whittaker, 1997)<sup>11</sup>. The important point is that compared with larger enterprises where the internal problems of management are more prominent M&SEs face higher levels of external uncertainty.

The other crucial feature of relationships in micro and small enterprises is the uneven power-balance between the owner and the rest of the staff. While these relationships are also characterised by informality (Matlay, 2002a) they are underpinned by a formal legal contract of employment, which provides the employers with the right to make decisions over most aspects of the skill formation process. Some owners may be more authoritarian and others more democratic in their approach to the handling of inter-personal relations, but the basic power imbalance remains. The owner/manager has the final say on how things are run and she or he largely determines the 'culture' of the firm. This is not to discount the impact of employees in generating the culture, merely to point to the relative power of the owner in this relationship<sup>12</sup>.

Finally, these firms are also characterised by a very rudimentary division of functions. The owner, by virtue of his or her legal authority, has the right to make all decisions regarding the marketing of the product or service, the allocation of financial resources, the development of new products or services, and the allocation and conditions of work and the training of staff. Thus, Matlay found that 'only a small minority of micro and small business owners/managers were prepared to delegate responsibility for, or control of, any managerial or strategic functions' (Matlay, 2002a: 363). However, this does not necessarily mean that the tasks and the learning for them is not complex, for example, the firm may be supplying sophisticated programmes or professional expertise, it just means that the division of functions is rudimentary.

In this context, the management of the skill formation process is informal. For example, the identification of learning or training needs for employees may be done through meetings between managers, through the owner having 'a chat' with the

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<sup>11</sup> The exposure of small firms to market uncertainties differs between national cultures. In Japan for example the complex sub-contracting relationships many SMEs have with their larger customers shelters them from many such uncertainties.

<sup>12</sup> For a discussion of the importance of individual employees in constructing the small firm's approach to training see D. Bishop, (2004) 'Social Construction at the Organisational Level,' Chapter 8.

employee, or through the employee approaching the owner. Opportunities to move between jobs and acquire new skills may also be determined by the owner or manager as they allocate employees to different tasks within the company. Finally, evaluation of the effectiveness of such learning in improving performance is done on the basis of observation of the employees' performance, sometimes aided by the use of other measures such as sales performance, level of waste, absenteeism and so on. The important point here, highlighted by Blackburn, is that employers place the emphasis on individual performance rather than business performance as we find in larger enterprises (Blackburn, 2003). Again, what characterises all this is not just the concentration of authority and functions in the hands of the owner<sup>13</sup>, but the informal manner in which it is exercised (Hughes et al, 2002; Tillaart, et al, 1998; 1998a).

### **How Do These Conditions Impact on Skill Formation?**

We now switch perspectives and examine the process from the point of view of the individual employee in these firms. For those first entering there is the problem with learning the culture of the firm, what is and what is not acceptable behaviour, how to relate to different members of the firm with their own idiosyncrasies and patterns of behaviour, learning who does what and where you go for help. In addition, there is the problem of learning the specific tasks you are expected to do and where those tasks fit into the overall division of labour within the firm. All this learning is usually done incidentally, in the course of the interactions involved in performing the job (Tillaart, et al, 1998; 1998a). There may be attempts by the owner or one of the other members of staff to provide some instruction on how to perform the tasks, which may be structured in one way or another. Alternatively, the individual employee may be rotated between jobs but, apart from this, advice and hints on what and what not to do are transmitted through observation and everyday interaction. Because the relationships involved in the organisation of production are informal, so too is the process of learning.

For the owner or manager, the pressure of seeing to the day-to-day operation of the business means that much of their learning takes place in an incidental manner during the introduction of new technology, through discussions with suppliers,

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<sup>13</sup> There are of course limits to the arbitrary powers of the owner which are set by legal constraints, custom and practice and personal beliefs.

customers, trade meetings and other business activities (Sung, et al, 2000), sometimes referred to as learning from experience (Doyle and Hughes, 2004). For those operating in a cost sensitive, competitive product market, the emphasis is primarily on the short-term, 'need-to-know' basis (Curran et al, 1996). For those operating in high value-added markets, the approach to skill development may be more longer term and strategic in orientation (Kitchin and Blackburn, 2002). However, as we have seen above, it is the family members or managers that are most likely to be given the opportunity of attending formal training events. It is the rest of the employees for whom the workplace is likely to be the main source of learning.

Thus, when we look at how employees learn, the following have been found to be important; learning by solving problems either by themselves or with colleagues, observing colleagues, informal chats, moving between jobs, team-based activities and working with more experienced colleagues (Sung et al, 2000; Doyle and Hughes, 2004). Moreover research found that the precise ways in which employees learnt differed according to the industry context, as did their view of the effectiveness of these techniques (Tillaart et al, 1998; 1998a)<sup>14</sup>.

This is not to argue that formal training is not undertaken in micro and small firms. Research has established a number of reasons why such formal courses may be necessary, for example the legal obligations facing employees and employees in terms of Health and Safety, the requirements for professional development, the need to update knowledge on latest technical developments and so on (Curran, et al, 1996; Sung et al, 2000; Kitchen and Blackburn, 2002). Formal courses are also more likely to be used by certain types of micro and small firms. For example, for those operating in higher value-added markets, as in some craft trades and professions, the work may require extensive technical and other intellectual skills which may be most effectively delivered through formal training of one form or another (Brown et al, 2005)<sup>15</sup>. However, many micro and small firms do not operate in those types of market and therefore do not require such skills.

For other forms of formal training there are severe constraints on micro and small employers which mitigate against their use. These have been well documented

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<sup>14</sup> For a more detailed analysis of the how people learn at work see Eraut, et al (2000)

<sup>15</sup> There are some indications that formal courses may be more effective in transmitting certain types of knowledge, see Green et al, (2001).

in the literature (Trouve, 2001: 191; Curran, et al, 1996: 28; Westhead and Storey, 1997: 7-10; Kitchin and Blackburn 2002: 59). Two of the most important are the cost and disruption caused by sending staff to formal courses. Whereas larger companies can offset the cost of producing a formal course against the large number of employees that attend the course, this is not possible in a micro or small firm. Perhaps of even greater importance is the cost of disruption to the production process. If ten staff are sent on a course in a large company employing 2,000, they can easily be replaced by moving staff around and there may be no measurable impact on output. In a micro firm employing 5 people, however, if one member is sent on a course then the owner/manager loses 20% of staff and the disruption can seriously reduce the output of the firm. As found in case study research by Sung et al, (2000) all workers in the micro enterprise are 'key workers'. Other factors include the inability of providers to tailor their provision to the needs of the enterprise. In view of such constraints it is perfectly understandable why micro and small firms make lower use of formal training courses (Trouvé, 2001: 191).

The situation with regard to the use of formal learning may be very different for individual employees. While they may consider on-the-job learning the most effective way of improving performance for the job, there is some evidence that when it comes to their own personal development, employees in micro and small firms also value broader-based and formal learning more highly (Hughes et al, 2002: 39)<sup>16</sup>. This is understandable because from the individual employee's perspective, if there is limited scope for progression within the SME, they can only improve their income by moving into the external labour market. There, employers, particularly those in other industries, often use formal qualification as a measure of skill levels.

Finally, just because micro and small firms rely on informal means of learning and training, this does not mean that the process of skill formation is necessarily less extensive than that found in larger firms with their greater reliance on formal training. For example, while the skills required for specific work tasks within a micro or small enterprise may be more or less specialised than those found in a larger firm, the fact that there is less specialisation in the division of functions (less differentiation) within the firm may mean that the employee obtains a broader experience in the various

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<sup>16</sup> Felstead et al (2004) found this the case for employees in general, while Tillaart, et al, (1998; 1998a) found similar evidence in micro firms.

functions. For example, in addition to their specific job tasks, the employee may also obtain knowledge of sales and marketing and training new employees, skills which would be denied them in the larger organisation where these are specialised roles. In view of this, it is not surprising that attempts to quantify the learning process by Australian researchers found that 'If all efforts to train, including the unstructured and informal efforts, are counted within the total estimate of training volumes, then smaller enterprises' training effort begins to approximate (proportionally) much closer the effort of larger enterprises', (Ridoutt et al, 2002: 62). What we are witnessing is the same process of skill formation but one in which the context differs.

### **Institutionalising Skill Formation: Skill Formation in Medium and Large Enterprises**

When the numbers of staff employed have increased from say 10 to 50, the owner faces a new situation. They are moving from managing staff who are all known personally, and where it is possible for him or her to handle all the day-to-day decisions, to one in which it is impossible to know all the staff personally and to cope with the number of day-to-day decisions that have to be made. At some point, systems and procedures have to be introduced (Atkinson and Meager, 1994). Departments have to be created, procedures formalised, and rules established about who can make what decisions. As the work of the owner becomes that of co-ordinating the work of managers and/or teams, the problem of managing internal uncertainty emerges. In addition, in this second phase, the owner may have the additional problem of handling more abstract business concepts such as cash flow, industrial relations and organisational design, many of which may be totally new to them.

The implementation of such a growth strategy, coupled with the increased staffing levels, demands a more structured approach to management in general and the management of learning and training in particular. For those with little prior experience in the management of large numbers of staff, this transition can be painful (Sung et al, 2000). However, what it invariably involves is the establishment of a system for ensuring that the firm identifies its skill needs at all levels, that all staff have the appropriate skills, and that those skills deliver the appropriate level of performance.

Some M&SEs may wish to restrict growth precisely to avoid these problems while other 'lifestyle' owners may not wish to grow. They are perfectly happy to stay as small enterprises. There is a considerable debate in the literature on the extent to which micro and small enterprises are growth oriented and the role that gender might play in this (Observatory of European SMEs, 2002), although, there is evidence which suggests that the majority of SMEs are not growth-oriented, regardless of whether they are run by women or men (McGregor and Tweed, 2002).

For those micro and small enterprises that do grow, once this transition has been accomplished, both the owner and employees face a very different context in which skill formation takes place. For the owner and senior managers the external problems still figure prominently. However, for the department or business managers the problems that occupy them are the internal problems of managing production, process systems and day-to-day relations. With regard to skill formation, the operation of the three processes of differentiation, formalisation, and decentralisation have created a completely new context.

While these component processes cannot be observed directly, it is possible to use indirect measures to identify them. We use the results from a number of research projects to illustrate the impact of these processes. What they illustrate is that as they grow in size, firms experience the impact of the three processes of change that create the conditions for the institutionalisation of learning and training. We deal first with way in which the process of learning is formalised.

### **Formalisation**

As firms grow in size, it becomes increasingly difficult for the owner-managers to maintain personal relationships with all staff and to make all the decisions about the type of training undertaken, how it is delivered, who receives it and so on. The assumptions and customs that govern the informal relationships in the micro organisation have to be made explicit and formalised so they are known by all staff and can be used to inform the decision making process. Formalisation therefore leads to explicit systems and plans which make it easier to communicate to a larger workforce as well as facilitating delegation of the various functions. We can observe the manifestation of this process in a number of areas, in the emergence and use of

written training plans, in the identification of training needs, in the use of formal qualifications and in the evaluation of the effectiveness of training.

The use of training plans start to formalise relationships by describing the range of training activities undertaken, the priorities that determine the type of training to be supported, and how such training is to be evaluated. What is particularly interesting is the point at which these training plans start to appear as firms grow in size. The Learning and Training at Work Survey in Britain 2002 (IFF, 2002), the results of which are detailed in Table 1, found that in 2001 only 27% of employers with 1-4 employees had a training plan, but this rose to 55% of employers with 5-24 employees and jumped again to 76% for those in the 25-99 category. Unfortunately, this survey may hide the real break point where this process of formalisation ‘kicks in’ because it used the category 25-99. We say unfortunately, because many organisations with 30-50 employees can still survive effectively with informal procedures<sup>17</sup>. Therefore, to include these together with those organisations of 50-99, means that we fail to identify the point at which formalisation really starts to impact on the delivery of training for most firms.

**Table 1. The formalisation of procedures: the existence of a training plan  
UK Sample**

Number of employees	Existence of training plan % (2001)
1-4	27
5-24	55
25-99	76
100-199	86
200-499	88
500 +	91

N= 4010 Source: Learning and Training at Work (IFF, 2002 pp. 59 & 115)

The Leicestershire SMEs research (Sung et al, 2000) enables us to identify this break more precisely. Conducted in 2000, we use it to differentiate the small

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<sup>17</sup> Indeed, we have examples from ILO case studies of firms in Thailand where informal relationships were still in use with a firm employing 160, in part because of the extensive use made of sub-contracting arrangements.

organisations, characterised by these informal relationships from the medium sized establishments of 50-99 employees. This reveals a ‘step change’ in the proportion of those with a written training plan as one moves from small organisations with 10-49 employees to the medium sized organisations of between 50-99 employees. Thus, the proportion of those with a written training plan jumps from just over 20% for those with less than 50 employees, to over 47% in those with 50 or more employees. Similar findings have recently been reported by Kotey and Sheriden (2004) who, in their study of general HRM practices and firm growth, found that the adoption of formal HRM practices increased at a more rapid rate during the early stages of growth than during the latter stages of growth.

**Table 2. The formalisation of procedures: the existence of a training plan**

Leicestershire Sample

Number of employees	Existence of training plan % (2000)
1- 9	20
10-49	21
50-99	47
100 +	60

N= 265 Source: Sung et al (2000)

At the operational level, as the size of a small organisation grows, there is a need to collect the relevant training and learning needs from an increasingly complex productive system. It is here we observe the emergence of a range of information mechanisms designed to establish learning and training needs in a growing organisation. Table 3 reports the different methods through which training and learning needs were ascertained in 2000.

It illustrates how formalisation takes place as the organisation becomes larger, business plans, personal development plans and training needs analysis are becoming more common as a tool to ascertain skill requirements within an organisation. It is interesting that Table 3 also reveals that further formalisation is marginal in areas such as appraisal, discussion with the supervisor and team meetings, as small organisations are already using these mechanisms.

**Table 3: Methods to identify training and development needs within the organisation**

	Number of employees			
	1-9	10-49	50-99	100+
				%
Business plan	26	41	47	70
Personal development plan	18	32	47	67
Appraisal	41	51	63	87
Training needs analysis	17	23	50	70
Discussion with supervisors	40	63	63	90
Team meetings	47	51	70	87

N= 265 Source: Leicestershire SME Training and Development Survey (UK) 2000

With regard to more specific training needs, in firms with a staff of over 50 or 100 it is no longer possible for the ‘boss’ to identify the training needs of all employees in the course of her or his everyday interaction with them. Training needs analysis becomes formalised and a separate and specialised activity with its own expertise. Formal techniques of training needs analysis are developed and become part of the specialist knowledge of the trainer. In larger organisations the process has become systematised and ‘objective’ in appearance, involving a series of steps or stages between the initial identification of training needs and their translation into a formal training course. It is broken down into a number of stages; first investigate training needs, second design training, third conduct training and fourth assess its effectiveness in improving performance. This process is then broken down further, with some textbooks recommending that this can involve a total of 14 stages (Buckley and Caple, 1995). As companies grow in size, not only do they make more use of training needs analysis the process itself is far more formal.

Another aspect of formalisation is the use of procedures and systems to underpin learning and training objectives. Here we use the adoption of the Investors in People (IiP) Award as an example. The IiP is flexible in the sense that there is no one single ‘template’ to link training to organisational objectives for the purposes of

the award. However, what is common to all award holders is the need to demonstrate such a link (and its associated systems) through documentary and inspection evidence.

Table 4 shows that there is a clear differential pattern in using IiP to guide training activities between organisations with less than 50 employees and those with 50 or more employees. It illustrates how, as organisations become larger, the increasing use of formal procedures and systems enable larger organisations to take advantage of public VET provision such as the IiP award<sup>18</sup>.

**Table 4: Organisations having achieved the IiP Award**

Number of employees	Have IiP (%)
1- 9	4
10-49	9
50-99	20
100 +	30

N= 265 Source: Sung et al (2000)

Another aspect of this process can be seen in the move toward the use of ‘objective’ measures of individual skills, namely qualifications, and their use in delivering knowledge and skills to the workforce. These are used more frequently at the higher occupational levels. There the roles of managers, accountants, personnel specialists and technical staff are more dependent on the use and application of theory which, for reasons discussed above, is usually delivered through educational qualifications. Moreover, because medium and large enterprises have more such staff, they tend to make more use of formally certified courses. Thus they make more use of formal qualifications to train employees than micro and small enterprises. Table 5 presents the results for Singapore. Only a minority of micro and small enterprises there use formal qualifications as means of training their employees, but a much higher proportion of medium sized enterprises use them, while for large enterprises a majority are using them.

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<sup>18</sup> For a discussion of the relationship between the existence of formal training procedures in firms and the use of public provision see (Ridoutt, et al, 2002).

In the UK in 2002, 48% of enterprises with 5-24 employees offered training leading to a formal qualification, a figure that increased to 60% for firms with 25-99 employees, 74% for those with 100-199 and 80% for those with 200-499 employees (IFF, 2002: 72).

**Table 5. The provision of training leading to formal qualifications (Singapore, 2001). Percentage of employers providing training for qualifications by size of enterprise and occupational group.**

Occupational Group	MSE <50	ME 50-249	LE >250
Managerial/professional	24.8	40.3	62.3
Non-man/white collar	27.8	45.5	64.9
Manual	16.1	28.3	48.1

N= 1209 Source: Sung and Ashton (2001)

The same pattern of formalisation is also repeated when we examine other forms of off-the-job training, most of which do not lead to qualifications. Micro and small enterprises use this technique far less than medium sized enterprises, who in turn use them less than larger enterprises. Again, the UK Learning and Training at Work survey 2002 (p. 47) found that 57% of employers with 5-24 employees provided formal off-the-job training. For establishments of 25-99 employees this figure jumps to 79%, while for those between 100-199 it is 89% and for those with 200-499 it is 93%. Sadler-Smith and Lean (2004: 144) found the same relationship between off-the-job training and firm size. However, on-the-job training remains the most frequently used training technique, even in large organisations<sup>19</sup>.

If we dig a bit deeper, we find that with the exception of Health and Safety training, all the other forms of training which are undertaken in an informal manner in micro enterprises are increasingly transformed into formal courses in larger enterprises. The UK Training and Learning at Work survey found that, new technology training, management training, supervisory training and foreign language training were all used more frequently in larger enterprises (IFF, 2002: 70). In the field of induction training, Kotey and Sheriden (2004) found that medium sized firms

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<sup>19</sup> This has been one of the most consistent findings in the annual survey of training and development conducted by CLMS for the CIPD.

were more likely to provide formal induction training than smaller firms and to cover more items within this.

Finally, formalisation also affects the evaluation of the effectiveness of training. With the incidental learning undertaken in the micro enterprise it is not possible to measure the precise amount of learning or training because it is part of other activities (Kitchin and Blackburn, 2002). Once training has been taken away from the workplace and delivered in a specialist course (either certified or not) the situation is very different. It now becomes much easier to identify and cost the time of the trainer (and the trainee), plus the capital costs embodied in specialist training facilities and to produce a more precise figure for the full cost of training. Thus in the M&Les, because the process of learning becomes more formalised it is therefore more capable of measurement. This in turn permits the use of a range of tools to measure its impact such as Rate of Return analysis.

So all pervasive is this process of formalisation that even the use of informal learning can become formalised in the larger firms. The incidental learning that is evident in day-to-day interaction in the M&SE becomes formalised into coaching, buddy systems, and mentoring relationships in larger enterprises for which managers and others involved require specialised training.

This is not to argue that all informal learning ceases in large organisations. The evidence suggests that in many large organisations informal learning remains extremely important (Coffield, 2000). The extensive use of informal learning has been documented in multinational corporations (Ashton, 2004) in the UK Heath Service (Fuller et al, 2003, 80-89) in the Finnish Health Service (Engestrom, 2001), in state schools in the UK (Hodkinson and Hodkinson, 2004) and in the professions (Eraut et al, 2000; Cheetham and Chivers, 2005) to name but a few studies. Indeed, given more recent changes in the organisation of production (Ashton, 2003; Ashton and Sung, 2002) associated with the introduction of high performance working practices, informal learning of large firms has achieved a higher level of prominence (Fuller et al, 2003). As in small firms, both formal and informal learning co-exist, it is the balance between the two that changes.

While the process of formalisation impacts on most forms of learning, it must be emphasised that the use of formal methods, on its own, tells us nothing about the level of skill transmitted. This is evident in the process of training needs analysis used

to identify the skills transmitted through the training courses. In most organisations the use of formal training needs analysis (TNA) is meant to ensure that the courses deliver sufficient knowledge and instruction to deliver specific tasks and no more, so that the firm's resources are not wasted on delivering skills or knowledge that may be over and above that required to perform the job efficiently. Thus, in mass production companies, TNA may be used to identify the precise skills required to perform the most simple operations (Krogt and Warmerdam, 1997), exactly what Frederick Taylor advocated. At the other extreme, TNA can be used to identify the range of skills required by a graduate to ensure that he or she can operate effectively as a member of management. The use of these techniques tells us nothing about the complexity of the skills or the level at which they are performed.

### **Differentiation**

Here we dealing with the differentiation of learning as a separate 'training' activity or function within the firm. We are therefore concerned to trace the point in the growth of the firm when it becomes more and more difficult for the owner/manager to conduct all the business by himself or herself. As a consequence, the functions are divided up between staff and gradually specialist staff emerge or are appointed to take responsibility for training as designated functional area of the organisation. The same process can be observed with regard to other management functions.

In medium and large enterprises, therefore, not only are relationships more formal, they also become conditioned by the internal structure of the organisation. As the firm splits into departments or functions these provide boundaries within which relationships are contained, leading some commentators to speak of the silo mentality of large organisations (Gemmel, 2003). This gives rise to different management problems, which are no longer just those of negotiating with the forces of the (external) market, managers now face the problems of managing large numbers of employees. Only the leaders of the organisation are now concerned directly with the problems of the market. For the employees, their experience of the day-to-day

relationships at the workplace are largely insulated from the demands of the market, and contained within their department or business unit<sup>20</sup>.

This process of differentiation impacts on learning and training in a number of different ways, for example in the emergence of separate training departments and staff devoted to the training function, in the types of activities covered by the training budget and in the use of specialist training courses. In medium sized firms, training becomes a specialised activity. Table 6, reporting the Singapore data, illustrates the emergence of specialist functions and training personnel in medium and larger establishments. It suggests that this appears to take place at two points in the growth process, first when they move beyond 50 employees and second when they move beyond 250. For example, the percentage of organisations with a training department or unit increases from less than 10% in micro and small enterprises, to 23% in medium enterprises and to over two-thirds in larger enterprises with over 250 employees. Likewise, the training budget has to make increasing provision for specialist trainers, which is reflected in the fact that whereas only 14.5% of medium sized enterprises make such provision, in the larger enterprises the figure is 60%.

**Table 6. The emergence of specialist training departments and roles. Use of practices by size of employer (Singapore)**

% of employers using practice

	MSEs <50	MEs 50-249	LEs >250
Training Dept*	9.1	22.6	67.5
Training specialists **	7.4	14.5	59.7

\* % of enterprises which use their own training department

\*\* % of enterprises that employ internal trainers

N= 1209      Source: Sung and Ashton (2001)

Table 7 illustrates how this happens with the emergence of specialist trainers in the UK. In this case, the process appears to be a more gradual differentiation of training from other activities, with the percentage of dedicated training staff and

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<sup>20</sup> One consequence of this are the attempts by senior managers in many larger firms to make their employees more 'aware' of customer needs, leading to yet more formal training courses on customer care.

training facilities increasing incrementally with the size of the organisation. The larger the organisation, the more likely they are to have staff dedicated to training with their own departmental resources. Here there is no major ‘step change’ in the proportion of firms designating specialist trainers or using specialised training courses. This process appears to have a more linear form of development, although here we are only dealing with employers that provide off-the-job training.

**Table 7. Differentiation of the training function: the existence of training staff (UK)**

Number of employees	Existence of staff to design and teach training courses % (2002)
1-4	19
5-24	30
25-99	43
100-199	59
200-499	72
500 +	79

N= 2830 Source: Adapted from IFF (2002, pp 66 & 117)

Another index of this process of differentiation is the range of activities covered by the training budget, while we find that only a minority of micro and small enterprises have a training budget, where they do, it is largely used for funding external courses and the basic technology of training, namely books and manuals (Table 8). This contrasts with the medium sized enterprises among whom more have such budgets, but for whom the budgets are used to fund a greater range of items, including the more extensive use of outside consultants. As for the large enterprises not only do the vast majority have a budget, but they are using it to cover a broader range of activities, in particular the salaries of trainers and the fixed cost of specialist training facilities.

**Table 8. Items included in the training budget (figures refer to % of all enterprises with a training budget)**

	MSEs <50	MEs 50-249	LEs >250
Fixed costs	10.2	22.1	44.2
External courses	39.4	93.9	81.8
Books, technology etc	21.2	35.8	68.8
Outside consultants	17.5	34.3	71.4

N= 1209 Source: Sung and Ashton (2001)

In short, and as a general rule, the larger the enterprise the more differentiated are its activities in the field of learning and training. We have only presented results from two countries but similar results are found in every country that we surveyed<sup>21</sup>. This suggests that irrespective of the national culture, there is a clear relationship between organisational size and the emergence of specialised human resource development staff (Kotey and Sheridan, 2004: 480). In medium, and especially larger enterprises, learning and training are usually professionally managed activities.

Another manifestation of this gradual differentiation of functions is an increase in the use of specialist training courses. As the organisation grows, the introduction of separate roles means that staff have to receive specialist training in finance and personnel, sales etc (if they are not already recruited as trained specialists) and this is often done through formal courses. In the Leicestershire SME Survey (Sung et al, 2000), Table 9 shows that only 20% of micro companies had managers involved in formal training programmes, but this percentage more than doubles to 45% in the small enterprises and then rises to 70% in the medium and larger organisations of over 100 employees.

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<sup>21</sup> Surveys using a very similar questionnaire to that used in Singapore were carried out by CLMS between 2001 and 2002 in Bahrain, Barbados, Belgium, Cyprus, China, Greece, Malta, Mauritius, Thailand and the Czech Republic.

**Table 9. The use of formal training courses**

	Number of employees			
	1-9	10-49	50-99	100+ (%)
Use formal management training courses	20	45	52	70
Staff having a training/Supervisory qualification	47	51	70	87

N= 265 Source: Sung et al (2000)

Table 9 also shows that in order to differentiate the training function, training is more widely supported by qualified training staff in larger organisations - an almost two-fold difference in staff having a training qualification between micro organisations and large ones (47% and 87%, respectively).

### **The Delegation of Authority**

The third area in which change takes place with the growth in size of the organisation is in the conduct of authority. In micro and small enterprises, the owner/manager can retain control over all major decision making. As the organisation grows beyond 30 to 50 employees, it becomes increasingly difficult to manage (control) behaviour through personal interaction. Internal relationships now have to be explicitly managed and the authority to do so has to be delegated. Thus whereas Matlay (2002a: 362) found that in micro and small enterprises, over 90% of owner-managers made the main decisions with regard to human resources, in 26% of medium sized firms personnel managers were responsible for such decisions, while in all larger firms designated managers represented the training and HRD function at departmental level. Similarly, Sadler-Smith and Lean (2004: 143) found that the primary responsibility for HRD activities in small enterprises lay with the owners, although line managers had the responsibility for instruction, coaching and mentoring and assessing individual employee's training performance. In very large firms, we find that each of the functions within training, such as needs analysis, delivery of training and instructional design, has its own section and management structure.

We can observe the manifestation of this delegation through the use of explicit budgets for training. Again the results of the Learning and Training at Work Survey (IFF, 2002) shows that the percentage of organisations with a training budget doubles as you move from 1-4 employees where the figure is 19%, to 40% for those in the 5-24 band, and then increases again to 64% in the 25-99 band, 82% for the 100-199 band and 91% for those with more than 200 (IFF, 2002: 59 and 115).

Similar patterns can be observed in other data sets. In the Singapore study, the finer categorisation revealed a similar change in the use of a training budget. As Table 10 shows, the percentage of organisations with a training budget almost doubles from 27% for those with less than 50 employees, to more than 48% of those with more than 50 employees.

**Table 10. The delegation of authority: the existence of a training budget (Singapore)**

Number of employees	Training Budget % (2001)
1-10	19
11-49	27
50-100	48
100 +	64

N = 1209 Source: Sung and Ashton (2001)

Likewise, the evidence in Table 11 from the Leicestershire survey lends further support to the patterns of training delegation. Here, the pattern of delegation of training budgets is remarkably similar to that in Singapore. However, additional information from the Leicestershire survey also shows that having a dedicated training officer becomes increasingly important as the organisation grows. Table 6 shows that training officers are a rare appointment in micro organisations, whereas in larger organisations over one half have them. Similarly, in addition to delegating training to the training officer, other staff may be trained to carry out training. In large organisations, Table 11 shows that 70% of the large organisations train their supervisor to carry out training, but only 7% of the micro organisations do so.

**Table 11: The delegation of the training authority**

	Number of employees			
	1-9	10-49	50-99	100+ (%)
Having a training budget	14	21	43	77
Having a training officer	9	18	27	57
Supervisors trained to Deliver T & D	7	21	40	70

N= 265 Source: Sung et al (2000)

These statistics are perhaps crude indicators of very different types of relationships found in the micro and small enterprises on the one hand, and the medium sized enterprises on the other. Essentially, these differences hinge on the use of direct face-to-face contact between owners/managers and employees in micro and small enterprises. However, although the differences between small and medium sized enterprises as revealed in these tables are stark, in reality they tend to underestimate the extent of the change involved as you move from micro and small enterprises on the one hand to medium sized enterprises on the other. Thus, the results displayed in our tables suggest that some degree of formality and differentiation has already crept into many micro and small enterprises. For example, in the Leicestershire sample, just over 20% of those employing less than 50 people had a training plan. However, this may well be due to the fact that these UK and Singaporean samples include the small branches of much larger organisations, such as branch outlets of large retail establishments or of financial companies such as banks and insurance companies. These are sometimes referred to in the literature as small multiples (Cully *et al*, 1999).

These small branches are almost invariably characterised by higher levels of formal rules and regulations and the delegation of authority to managers and officials who report to a higher level or head office, usually physically located elsewhere. If we took out these small branch and franchise establishments, because their characteristics are primarily those of the larger enterprise or organisation to which they are attached, then we would find even greater differences between micro and small enterprises owned by private individuals and the larger enterprise. Cully *et al*

(1999) found that 61% of small multiples (10-99 employees) used handbooks to guide and control the behaviour of employees, compared with only 30% of small independent businesses. They also found that 29% of small multiples had personnel specialists compared with only 9% of small independent businesses of the same size. Thus, if anything, the figures we have shown in the tables above clearly over-emphasise the degree of formality and differentiation that is found in the small independent business<sup>22</sup>.

### **Managing the Complexity of the Process**

We noted above that in larger enterprises the institutionalisation of skill formation involves its own management problems. With the emergence of separate training departments the link between training activities and business needs can become problematic as the training department develops its own interests, which may be at variance with those of the business leadership. This may be manifest in a tendency to create formal courses for every training need when less formal methods may be more appropriate, to concentrate on the use of formal qualifications when the company requires more tightly tailored delivery, or for trainers to neglect the business case for training. In recent years we have seen a burgeoning practitioner literature emerge on the need to link training to business objectives, something that is taken for granted in micro and small enterprises. Managing these relationships becomes an important aspect of the training managers' role.

Other problems emerge with the separation of training from the workplace, perhaps the most widely discussed is the problem of transferring the skills transmitted in the training centre back to the workplace. As a result, a series of techniques have been developed to ensure that what is learnt on formal courses is transferred back into effective performance, but this still remains a problematic area for trainers in large organisations.

Similarly, with the separation of the company into divisions, or business units, the transmission of knowledge across the company and the maintenance of the collective memory, the competencies required by the company and the generation of new knowledge and skills, become more problematic. These are especially

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<sup>22</sup> The level of institutionalisation is also affected by other factors such as the industry sector (Curran, et al, 1996) and occupational composition of the firm (Sung et al, 2000).

problematic if the company is involved in knowledge intensive work or production. Although there is insufficient space to tackle this issue here, it is important to point out that the ‘problem’ of knowledge management is also a consequence of the institutionalisation of learning in larger organisations<sup>23</sup>.

### **Experience of Skill Formation in Medium and Large Enterprises**

As a consequence of these three processes of change, a significant part of the skill formation process becomes separated from day-to-day work relationships, and is institutionalised in the form of techniques of training needs analysis, formal courses and formal systems of evaluation. Courses are used to deliver a variety of objectives, to learn the job tasks, to learn teamworking and communication skills, to instil commitment to the firm and to use new technology (Felstead, et al, 1997). All this is in addition to the transmission of knowledge about the firm during induction training and the legal requirements such as Health and Safety.

In this context, it is not surprising that from the individual’s perspective learning equates with the use of formal courses. For both employees and managers learning becomes synonymous with training in these large organisations<sup>24</sup>, confined to activities in a physically separate area such as the classroom or training centre. There, away from the workplace, it is experienced as a different activity, separate from the daily activities involved in the production process and structured in ways that are believed to enhance the process of learning. For employees this provides more opportunities for them to broaden their learning and skills and in some cases to obtain external certification of those skills. There is a wealth of research from the UK Learning and Training at Work surveys and Skills Surveys that documents the ways in which the opportunities for formal certification of learning increase in these larger firms.

This experience of learning as synonymous with formal courses is one that echoes the experience of policy makers and academics, for whom learning is also experienced in this way. It therefore reinforces the tendency among policy makers, academics and others who work in large organisations to equate formal qualifications

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<sup>23</sup> Aspects of this have been explored by Chaston et al, (1999; 1999a).

<sup>24</sup> So strong has this tendency become that researchers trying to examine the full range of activities where learning takes place have to continually stress to respondents that they are not just interested in formal courses, see Kitchin and Blackburn (2002).

and courses with human capital. However, it hinders our understanding of skill formation in micro and small enterprises precisely because the frames of reference developed to understand skills issues in larger enterprises are inappropriate to the realities of the process in micro and small enterprises.

### **Policy Implications**

What we have shown is that the institutionalisation of the skill formation process is closely linked to the size of the company. Size matters in our understanding of the ways in which the knowledge and practices required to create skills are delivered in different types of organisations, and to an understanding of how these are experienced by those involved. We believe that an understanding of this process of institutionalisation has important implications for the policy debates outlined at the start of this paper. We deal first with the implications that stem from the process of formalisation.

Here, our analysis adds weight to the argument that the formalisation of learning, in itself, does not create higher levels of investment in skills. There is no empirical justification for castigating micro and small enterprises for their reluctance to use these formal methods. When it comes to skill formation, the process takes on a different form in micro and small enterprises to that observed in medium and larger enterprises. For researchers it underlines the inadequacies of using formal training courses as a measure of employer investment in skill formation (Ashton, 1998).

However, it does not follow from the above that all forms of informal learning are equally as effective as all forms of formal learning. It is not a question of formal courses bad, informal courses good when it comes to skill formation in micro and small enterprises. We would not want to argue that public resources should be used to support or recognise all forms of informal learning in micro and small enterprises. When it comes to the process of skill formation there is no necessary link between the type of delivery mechanism and the effectiveness of the skills acquired to improve performance.

Formal courses are in general more appropriate for large differentiated companies where the process of training and learning takes the form of specialised and formalised activities which have to be carefully managed in relation to business objectives. However, in large companies with their formal courses, you can have

ineffective delivery, with poor identification of learning needs, poor delivery of materials and ideas, and line managers who do not support the application of skills in the workplace. Similarly in micro and small enterprises not all informal learning is effective in enhancing skills, you can have co-workers and owners who lack the skills required to teach effectively and who pass on bad habits and techniques as well as good techniques.

If we are to improve the delivery of skills we need to move beyond these debates about whether we should, or should not, recognise informal learning as the equivalent of the formal courses we outlined in the introduction. One is more appropriate for large firms, the other more appropriate for small firms. However, it is also important to recognise that the form in which the learning takes place tell us very little about the outcomes in terms of the amount of learning that takes place, the level of skill acquired or its impact on performance in the workplace.

It may be that in all firms some types of knowledge are more effectively delivered through formal courses. For example, the delivery of theoretical/formal codified knowledge required for management development and upgrading the skills of technical workers may be more effectively delivered through short formal courses, as Brown et al (2005) found in small learning-intensive companies. Such courses provide the opportunity for reflection which is important in consolidating and enhancing these 'intellectual' skills. In larger firms some knowledge and skills may be better delivered through informal means. Indeed, there is evidence from the UK Skills Survey (Green et al, 2000), that IT skills are more effectively delivered through formal courses, whereas problem solving, teamworking and communication skills are more effectively delivered through the workplace. This is supported by a recent survey for Ofsted which found that young people see school as the best place to develop literacy and numeracy skills, but that problem solving, communications and teamworking skills were more effectively learnt in the workplace (Ofsted, 2005). Stasz (1998) has already raised this question and tried to identify which components of these work-based skills could be delivered in the classroom.

All this suggests that there are limits to the formalisation of learning. In their study of learning in the South Wales coalfield, Fevre, et al, (2000: 66) argue that the skills and knowledge imparted through informal learning were vital to the miners' health and safety '...but they were not the sort of skills and knowledge that a formal,

standardised system of training could handle'. It may be that we lose a great deal of knowledge and skill if we fully institutionalise the process of skill formation. What is important is that we move away from equating skill formation in larger firms with formal courses and skill formation in smaller firms with informal courses and move onto these more fundamental questions.

When it comes to informal learning in micro and small firms there are other equally important questions we need to pursue. Given that some of what we call informal learning is of poor quality we need to explore how this can be improved. What support mechanisms are required to deliver effective informal learning? How can the teaching and listening skills that we know are an integral part of it be improved to enhance its effectiveness? Under what conditions does informal learning become ineffective? We also require answers to these types of questions if we are to take the debate forward on how to improve public support for skill formation in micro and small enterprises.

Finally, we need to be aware of the fact that in understanding the process of formalisation there are different interests at work. So far we have concentrated on the employers' interest, but for the individual there is another outcome that is particularly important, namely the certification of skills for use in pursuing their interests in the broader labour market. Here there is evidence that working in larger organisations does generally offer benefits to employees in terms of securing certification. For those working in micro and small enterprises, there is some justification in formalising and certifying learning because this has implications for the value of their skills in the external market. In this respect, the UK's National Employer Training Programme, with its emphasis on delivering certification for learning, is a step in the right direction for the employees.

Our analysis of the process of differentiation raises a different set of policy issues. First it suggests that with regard to many of the skills issues facing micro and small enterprises, there is no clear distinction in the minds of the owner/managers between the immediate business need and the associated skills issues. As the demand for skills is largely derived from the organisation of the productive system, then improvements in skills usually stem from improvements in business processes. The lesson for policy is that support for developing skills should be an integral part of the delivery of business advice to the owner/managers of micro and small enterprises.

Here again there are signs that recent government initiatives are starting to recognise this.

The second set of issues connected to the process of differentiation concern the temptation, among those delivering advice to micro and small enterprises, to impose the techniques and practices developed in larger enterprises onto micro and small enterprises. For example when government funded programmes are used to exhort the owner/managers of M&SE to use highly developed forms of training needs analysis. As these firms may only have a handful of employees, this not only wastes public resources but it may also alienate those they are meant to help.

Similarly, there is a tendency among some academics, anxious to 'improve' the quality of human resource management in micro and small enterprises, to impose on them practices which as we have shown above may be inappropriate from the owner/managers' perspective. For example, Beaver and Hutchings (2004: 86) advocate that owner/managers of micro and small enterprises should include '...terminal behaviours and standards about how behaviour should be performed, such as in terms of quality, quantity and time' in their training objectives, and that they use external trainers to reduce the problems associated with on-the-job training. While not wishing to question the underlying sentiment of trying to improve the quality of training in micro and small enterprises, the way forward here is to research how such improvement could be made in the context of the realities of life in micro and small enterprises, rather than seeking to impose practices developed in more highly differentiated companies.

Finally, we would re-emphasise that the institutionalisation of skill formation has little to do with the level of skills that are acquired in the workplace. Indeed, research into the factors that determine the level of skills developed and utilised within companies, suggests that these are the same in both small and larger enterprises (Smith and Hayton, 1999; Smith et al, 2002; Ridoutt et al, 2002). However, since much of the public debate concerns the use of formal courses since we feel that the type of knowledge derived from this analysis would enable us to devise more highly targeted and effective public interventions than we do at the moment. This would see an end to the one-size-fits-all approach that has characterised public policy in this area, releasing resources to be used more effectively to help employers improve the delivery of skills, irrespective of their size.

## **Acknowledgements**

This paper is based on work initially undertaken for the International Labour Office, Geneva. The authors wish to acknowledge the support from the ILO and especially that of Trevor Riordan. They would also like to thank Graham Cheetham for his comments on an earlier draft. Responsibility for the views expressed in this paper is that of the authors.

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