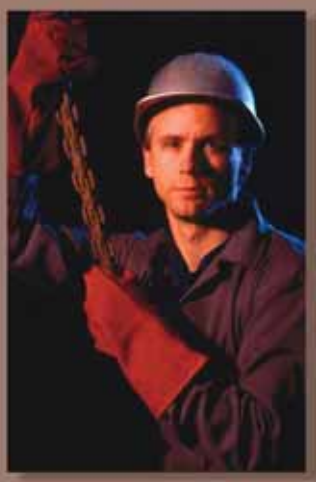
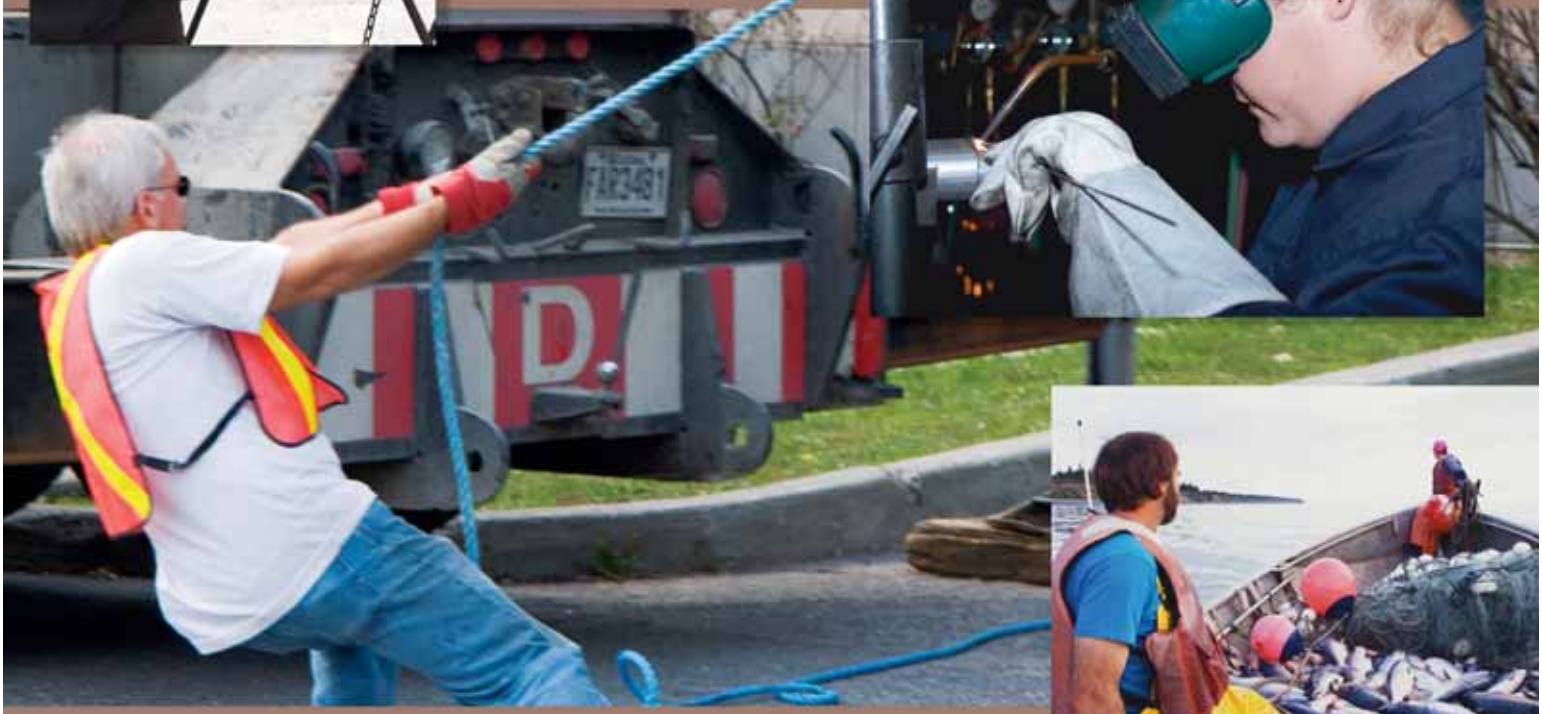
The Value of Formal and Informal Training for Workers with Low Literacy:



Exploring Experiences in Canada and the United Kingdom



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The Value of Formal and Informal Training for Workers with Low Literacy:

Exploring Experiences in Canada and the United Kingdom

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Abstract

This study investigated the types of formal and informal training activities of basic level employees using a qualitative multi-site case study research design. Seven programs from Canada and four programs from the North and South of England were selected as a sample of convenience from small, medium and large businesses. The range of formal and informal training activities are described as well an analysis of informal learning as both an activity and as a process for workers improving their literacy skills. Implications of the study suggest that reflexive and interdependent forms of self directed learning, going beyond simplistic versions that emphasise independent mastery of work tasks, may play an important role as workers engage in and shape everyday workplace practices.

Introduction

The economic well being of countries such as Canada and the United Kingdom depends on having a skilled workforce ready to meet the demands of the global economy. Adult learning, which is a key building block towards international competitiveness, allows workers to strengthen the skills needed to fully participate in a labour market that continuous to be transformed by new technologies. According to the Canadian Council on Learning (2007, p. 45) despite the importance of adult learning, a number of challenges persist. Although the rates of adult participation in education and training seemed to increase over the last decade, there are segments of the workforce with unmet learning needs and those in need are least likely to get further education and training. One of these groups are adult workers with low literacy skills.

Myers and de Broucher (2006) claim that a large portion of Canada's adult population is not equipped to participate in a knowledge-based society. For example, 5.8 million Canadians aged 25 years and over do not have a high school diploma and 9 million Canadians aged 16 to 65 years have literacy skills below the level considered as necessary to live and work in today's society (p. 3-10). Similarly, in the United Kingdom, the IALS survey findings indicated that up to 20 per cent of the adult population had low levels of 'functional literacy', leading first to the Moser report (DfEE, 1999) and then to the national 'Skills for Life' strategy (2002-7). The Leitch report (DfEE,

2006) has emphasised that the UK economy will for the next 30 to 40 years depend largely on employees already in the workforce today. Many of these employees (approximately one-quarter) have relatively few, or even no, formal qualifications.

Canadian evidence suggests that adult learning does have the potential to significantly change the economic well being of those with relatively low educational attainment. Zhang and Palameta (2006) analyzed the earning gains of individuals who obtained higher educational credentials later in life using a sample drawn from the Survey of Labour and Income Dynamics. They found that most men and some women who obtained a post-secondary certificate later in life enjoyed sizable wage and earning gains. In particular, male learners with an initial education of high school or less actually received higher returns than their more educated counterparts. Furthermore, evidence suggests that raising literacy and numeracy for people at the bottom of the skills distribution is more important to economic growth than producing the more highly skilled workers. Coulombe and Tremblay (2005) maintain that a one percent increase in a country's score on the international test for adult literacy is associated with an eventual 2.5 percent relative rise in labour productivity and a 1.5 percent rise in GDP per capita.

In a review of literature on the impact of workplace basic skills training as measured by their effects on wages and employment probability, Ananiadou, Jenkins and Wolf (2003) maintain that poor literacy and numeracy skills reduce earnings and the likelihood of being in employment, even when individuals have good formal qualifications. Between the ages of 23 and 37, almost two-thirds of men and three quarters of women with very low literacy skills had never been promoted, compared to less than one-third of men and two-fifths of women with good literacy skills. For women the ratio drops, but is still very significant. There were smaller but still very significant differences with respect to numeracy skills. In addition, these UK researchers state that "there is also good evidence to suggest that general training provided at the workplace has a positive impact on individuals' wages, particularly when this training is employer provided rather than off the job" (p. 289) although there is little robust evidence available about the specific effects on wages of workplace basic skills training. The accumulated evidence does, however, indicate that training provided at and through the workplace can play a significant role in increasing levels of workforce skills.

As Billet (2002) points out the more unique work-site activities a worker can access and engage with, the more learning that may result. Nevertheless, these learning opportunities are not distributed equally across a particular organization; those individuals confined to routine work, and whose roles may be less valued may have fewer chances to expand their learning (Evans, Hodinson, Rainbird and Unwin, 2006). Recently, types of formal and informal training activities engaged in by more skilled workers have been documented (Peters, 2004). However, there is a paucity of information about the types of training activities that workers with low literacy skills participate in. The key research questions that guided this study were: (1) What types of formal and informal workplace training do employees with low literacy skills engage in? and (2) How are these training activities related?

Theoretical Context and Focused Literature Review

The theoretical context for this study was drawn from the adult learning literature with a specific focus on formal and informal learning. Two seminal works helped operationalize the terms for the study. The report on the Adult Education and Training Survey, (AETS) which looked at Canadian adult workers training defined formal job related training as courses or programs related to a worker's current or future job (Peters, 2004). These courses and programs have a structured plan whereby an employee led by an instructor or trainer follows a program and receives some form of formal recognition upon completion, such as a certificate or a high school diploma. Formal programs include high school completion programs and registered apprenticeship trade and vocational programs. Courses include seminars, workshops and conferences attended for training purposes as well as courses which are taken for reasons other than credit in a program. Informal job-related training is training that involved little or no reliance on pre-determined guidelines for its organization, delivery or assessment. It does not lead to any formal qualification or certification and is undertaken by the participant with specific intention or developing job-related skills or knowledge.

Similarly, the Canadian Council on Learning (2007) characterized formal learning as those activities which occur within a structured, laddered context and lead to a recognized credential. These education and training activities are intended either for personal or work-related reasons (p. 45). Informal learning was described as loosely structured, self-paced and self-directed activities that are also intended for either personal or work-related objectives.

As Merriam, Caffarella and Baumgartner (2007) point out demographics, the global economy and technology have come together in adult education in the blurring of the field's content and delivery mechanisms. This blurring is evident in the use of such terms as formal, non formal and informal learning. However various frameworks help sort out these adult learning terms. For example, Foley (2004) provides a framework for depicting the different forms of adult learning including informal and incidental learning. His descriptions help form a typology for the area of workplace training and learning. Marsick and Watkins (2001) have also developed a model for understanding incidental learning that occurs in everyday life while Schugurensky (2000) proposes self directed learning, incidental learning and tacit learning as internal forms that are important to distinguish the phenomenon.

Using these frameworks, Taylor (2006) examined the informal learning practices of adults with low literacy skills at home, in the community and at the worksite in five different geographic locations in Canada. Using an ethnographic research design, field researchers gathered data over a three-month period of time as the 10 adult learners lived their life roles as parents, employees and community volunteers. One of the findings suggested that those adults in the study who were employed and had less than grade nine education became engaged in the infrastructure of the small company to learn informally and practice their reading skills, problem solving skills and oral communication skills. For example, one employee enhanced his learning through volunteer participation on the Safety Committee where he helped write procedures to follow for an accident prone situation. Another employee undertook a new role as a learner representative on a project team for the workplace

education program offered at the site. In this role he learned to advocate for workplace learning on behalf of his fellow workers despite his spelling and writing limitations.

In a similar vein, Evans, Kersh and Kontiainen (2004) described the tacit forms of personal competencies in the training and work re-entry of adults with interrupted occupational biographies. The authors identified the significance of the recognition and development of informal learning for basic level employees. The research showed how aspects of employees' individual biographies as well as their prior experiences play an important part in facilitating the "interrelationships" between employees and their workplace environments. Case analysis showed how adults' learning processes are negatively affected where recognition and deployment of tacit skills is low. Conversely, positive deployment and recognition of these skills sustains learning and contributes to learning outcomes. The starting point is the development of awareness, of learners' hidden abilities or tacit skills by tutors and students themselves. Modeling of individual learning processes provided insights into adults' experiences by making the part played by tacit skills visible. Tutors and supervisors employed different methods to make learners' tacit skills more explicit: Teamwork, one-to-one tutorial help, and giving new tasks and responsibilities. Individual approaches are needed in designing methods, taking into account experience, background and disposition, as well as learning environments and cultures. Workers' motivation and confidence can be facilitated by such factors as employers' support and skills recognition as well as various elements of the workplace environment such as opportunities for career development or additional on-the-job training. Learning opportunities were more likely to be effective when they responsive to the microconditions of specific work.

Methodology

The methodology for this investigation used a multi-site case study design. Through various data collection methods, seven different types of formal workplace literacy programs situated in small, medium and large companies were selected for the study. These companies were from the manufacturing, automotive and fisheries sectors in West, Central Canada and Atlantic Canada. Participants had bean employed full time or part time or on a contract basis with the companies while some workers had been with the same organization for more than ten years. Approximately the same number of male and females participated in the study. In the United Kingdom, examples of four types of workplace basic skills programs were chosen in the North and South of England from the transportation, service and food processing sectors. These have typically provided a standard, initial 30 hours of instruction in or near the actual work-site; have focused predominantly on literacy, are often built around the use of computers and use teaching materials that are generalist rather than directly related to occupations[1]. Participants are generally full-time employees, and approximately 60% are male.

[1] The other major issue for the design relates to the existence (or rather non-existence) of teaching content related to learners' workplaces or occupations… There is some strong research evidence (cited in our original proposal) that vocationally- and job-relevant material is learned more effectively and faster by adults than general content. Moreover, government guidance explicitly recommends that workplace basic skills tuition be preceded by and built on a careful analysis of workplace needs and practices. However, in actuality, such detailed needs analyses are rarely conducted and teaching material is generalist. (In the case of LearnDirect-based schemes, this is invariably true.) We have therefore concluded that it would not be appropriate to use occupational-specific tests to measure skill changes and will administer only general tests (but designed explicitly for adult learners.)

Comparable questions were developed for the trainee and instructor semi-structured interview schedules and worker journals: Artifacts from each work-site were also collected. Thirty-three trainees and 18 instructors from the various Canadian workplace programs participated in the interviews while 21 workers completed weekly journals documenting their experiences with informal learning at the worksite. These journals were kept after the employees had completed the formal workplace education program. Documents collected included job-related reading materials, examples of e-mail communications and descriptions of projects completed during the formal workplace education program and after the program at home. Employees recorded all of the different types of informal learning activities that they participated in on a weekly basis for a period of a month in a journal. Interview data, field notes and worker journals collected over three months were transformed into research narratives, member checked and subjected to analysis using the constant comparative technique (Merriam 2002). Case studies were written for each of the organizations which included a description of the company, the formal program and the workers experiences with informal learning at the shop floor level. Separate databases from each country were developed and were used for comparable purposes.

In the UK, this database is part of the Economic and Social Research Council's Teaching and Learning Research Program and the National Research and Development Centre for Adult Literacy and Numeracy. This longitudinal study aims to develop a theoretically informed and evidence based analysis of both immediate and longer-term outcomes of workplace-linked interventions designed to improve adult basic skills. In this study 564 employees have been interviewed and tracked. Data sources have included structured and in depth employee questionnaires administered at fixed points between 2003 and 2008, manager and tutor interviews; literacy assessments; completion of the Effective Lifelong Learning Inventory (ELLI) and organisational field notes. The research is asking about what happens to the employees that may be related to their learning experiences, and what happens in the company that may be related to the existence of the learning program. Of 10 workplace sites studied in-depth, 4 were selected for Anglo-Canadian comparisons, involving 42 employees, and 6 supervisors/tutors.

Interpretation of Findings

The Range of Formal Workplace Programs

Drawing from the Canadian data, small, medium and larger companies offer a variety of formal workplace education programs. A common feature across all of the companies is the use of the term essential skills programming. Workers, instructors and employers all use this same term to describe a full range of content and curriculum. One of the key reasons for the inception of these formal programs was that the company was in a period of growth, or downsizing or technological change. These circumstances triggered the employer to offer the training program or in some cases a worker group to request the training from the company.

In the larger and medium sized companies, a much wider range of formal training programs were provided to employees and included high school up-grading, ESL and computer training and

WHMIS, First Aid and CPR. Programs also focused on communication and team work such as Public Relations in the Workplace, Communicating with Emotional Intelligence and Manufacturing Leadership. Some of these programs were offered in a Learning Centre at the worksite and provided some type of sequenced curriculum taught by a qualified instructor resulting in certification or participation recognition or mastery of a work related task. For example, participants such as sewers, framers, fork lift operators and fish plant processors were enrolled in the GED upgrading classes at the worksite in preparation for the grade 12 equivalency exam. One particular company developed a provincially recognized Mature Student Diploma using fifty percent of the actual material used in the organization. In the smaller type companies, training opportunities with instructors tended to be shorter types of learning experiences such as report writing, document reading, conflict resolution workshops and numeracy instruction.

In two of the UK cases provision has to relate to large, multi-site organisation. Although the classes have been carried out at a wide range of sites they are mainly held in various centres or 'Learning Zones'. Equipped with computers and training rooms, they aim to provide an inviting and non-threatening space for learning, which includes literacy, numeracy, GCSE English, IT alongside other courses. In one case, a training facility initially consisting of a small room with 5 computers expanded to a learning centre became a 'LearnDirect' (mediated computer-based training) Centre in 2002, and then moved to a large purpose-built building in 2004. In this latter case, the company pays the salary of a full-time tutor and assistant and provided the funds for the new building, whilst LearnDirect (public funding) finances the computers and resources. The Centre is also open to the local community. In addition to computer and skills for life courses and job-specific training, the Centre also offers adult education courses which have been very important in attracting individuals from the company and community at large. In another food processing company, literacy and language courses were union negotiated and offered as part of a company to upskill their existing workforce in order to fill promoted positions internally such as team leader.

One of the key findings of the study was that employee participation in a formal program acted as the catalyst for the various informal training activities that occurred back on the shop floor. Participating in an organized class or in a tutorial session heightened employee awareness of the importance to learn. This interplay between formal and informal training was synergetic. As one instructor said,

> "it was like employees were re-awakened to their own learning capabilities as a result of the program and this provided a different viewpoint about their workplace and their jobs."

Back on the floor, employees experienced a certain type of assuredness in their literacy skills to try their regular or associated job tasks in different ways by themselves or with others informally.

Workers began to realize that they were on a pathway of learning. For some employees, the driving force for participation in the formal program was the credential or chances of career advancement, but this external motivation shifted once they become engaged in the more informal learning. What fuelled this desire to learn without the structures of the formal program was a viewpoint that

the day to day work requirements could be done differently or better through self-initiated or team-initiated learning.

There was also evidence of an interplay between formal learning and informal learning, with both external and internal motivation combining in highly context specific ways. An example is a UK employee in a food processing plant, who she saw a very direct and tangible link between the formal course and the skills used day to day at work. The process of a "flattening out" of management structures meant that she was increasingly required to take on more responsibility that also entailed increased paperwork. Her case also underlined some of the advantages and disadvantages of workplace-based formal courses: such training offers accessibility but also can potentially be negatively affected by pressure from managers/supervisors on employees to miss learning sessions in order to fulfill their duties in the workplace. This appears to have occurred to several employees in this particular organisation. Greater day to day job satisfaction was apparent in many of the UK employees who had participated in formal workplace courses, and had developed a greater awareness of the learning potential in their jobs as well as their own abilities to learn. Longer term follow-up is indicating, though, that without advancement or some kind of external recognition stemming from the employee's engagement with a combination of formal and informal workplace learning, this satisfaction can be eroded over time.

Types of Informal Training

Based on the data, two different but related conceptions of informal learning can be seen. One conception is workplace informal learning type and the other is at the trigger event and attitude level which might be viewed as the workplace informal learning process. Five types of workplace informal learning emerged from the case studies. The first type "Observing from Knowledgeables" included learning a new task or the same job task in a different way from a more proficient co-worker or supervisor. This often meant that the worker self-identified a mistake or error in a job task and searched for an expert to observe doing the same task.

In one particular work site, and employees mentioned that "seeking advice from experienced co-workers on inspection quality standards, conformance with blueprints and drawing up of specs" was his preferred method of informal learning. In another company, a worker learned how to separate a bag sealer when processing clams by watching a respected worker. She also learned how to reset and reload the label machine in the cannery by watching a peer. Steve, a worker in a large company went on to say, "for example, if there is a new drilling technique, I'll observe how it is done and try out the procedures." On the assembly line, another worker said "I asked a more experienced co-worker for his technical know how and advice for operating the machinery."

"Practicing without Supervision" was a second type. For the most part, workers sought after new experiences where they could practice a skill, like problem solving, or participate in the company in a new way such as joining a union or health safety committee. In some cases transfer of these skills learned informally happened outside of the workplace. For example, one worker described in her journal how she was better equipped to volunteer for the United Way Campaign and to participate in a dragon boat fund raiser. Another employee described it this way,

> "Pretty near every part of my job is informal learning. Everyday I get Jason to teach me how to download information from the GPS into the computer so I can make a map instead of waiting for someone else to show me how to do it."

A third type is "Searching Independently for Information." Workers often used their reading and computer skills to search for new kinds of information on a challenge presented in the routines of the work day. Frequently, the Internet, Intranet and work manuals were used for this information search. If employees had already taken a company computer program there was transfer of learning and if not some initial guidance by a co-worker was provided. One worker from a large company explained it this way,

> "I do use e-mail at work to e-mail my boss. I send up-dates, virus alerts, notes related to health issues, etc. I also e-mail the HR representative occasionally about something that might be related to what she's working on that she could pass on to others."

"Focused Workplace Discussions" with peers and supervisors was another main type of informal learning. Employees used questioning and summarizing skills to engage in workplace updates. They sometimes exchanged e-mails around work task procedures and for reporting new changes. In another company, three interviewees stated that work related safety was an important trigger for informal learning. This type of learning takes place during regular safety meetings.

> "I also have a lot of meetings on different issues inside and outside Dofasco for example, wearing safety glasses, wearing your hard hat, safety issues at the gates and floors coming up."

Another worker explained,

> "We also have safety meetings for all maintenance staff. In these meetings we learn about when to lock a machine, how to watch where your step and safety procedures. And every first Friday of the month, my crew has a Tool Talk session where we talk about safety issues on the job."

"Mentoring and Coaching" was another type of informal learning. Most workers who taught a co-worker how to perform a job-related task reported that this was an important way of informal learning. They realized that they first had to talk through the steps of the job task and understand the sequencing before coaching another worker. Many employees said that they were aware of an increased ability to mentally organize information when demonstrating a task to another worker. For example, Sam pointed out that he had to "interpret the rules to some new hires and coach them in what was taught to him and what he learned on his own through trail and error." In teaching someone, he said, "it helped me learn a different perspective on how to do something and how to do it better."

The Informal Learning Process

As an informal learning process, three patterns emerged from the data – trigger events, attitudes towards lifelong learning and inner recognition. The trigger events that prompted the informal learning were mainly related to a company ethos of quality performance and safety concerns within the work environment. Employees who belonged to companies that had a well defined and visible learning culture wanted to perform better for the organization or the customer. Most often workers

who had completed a formal workplace education program returned to the factory floor with a heightened awareness that some work responsibilities could be done differently. For example, fish plant processors became aware of another method for packaging a product or the leather cutters who realized that there was a more efficient way of communicating measurements with its satellite company in Mexico. These events triggered independent learning by and within the work group. Coupled with this was a certain attitude held by the workers about lifelong learning. Some employees had a curiosity about wanting to learn new things at the workplace. These workers believed they possessed the creativity and imagination to learn. Other workers "exhibited an uncertain and tentative attitude toward learning. They felt more dependent on others for help and guidance and less pone to pose questions." A third part of the process may be related to an inner recognition that the informal learning activity has personal and work benefits. This is evidenced in increased worker self-esteem. It is interesting to note that most employees were not motivated to learn informally for monetary rewards or the possibility of upward mobility. They were "spurred on by the need for a challenge or variety in the everyday work routine."

Particular to the UK database, employees' personal and educational backgrounds as well as skills they had learned from a variety of experiences in and out of paid employment influenced the ways in which they carried out their duties and responsibilities and dealt with various workplace situations. Yet this was not a deterministic process. It was found that formal workplace programs had the potential to compensate for previously negative educational experiences and to raise awareness of the opportunities (or 'affordances') for further learning through everyday work practices. Formal workplace programs have the potential to compensate for previously negative educational experiences and to respond to individuals' shifting attitudes to learning, with spin-offs for engagement in informal learning. There is a need to consider how the wider organizational environment itself needs development if it is to support rather than undermine investment in learning. Workplace learning programs need to be supported by working environments that are 'expansive' if they are to be successfully sustained. Promotion prospects and strategies seem to be important in sustaining employee motivation to take up formal courses in the longer term (although there are some notable exceptions to this among the UK cases); this is less so for engagement in informal learning, where the focus is on current job satisfaction.

Worker readiness and motivation to learn can have many origins. In the context of literacy learning, longitudinal tracking and in-depth interviews have provided important channels for exploring employees' experience with, and strategies for coping with, literacy in the workplace and in their personal lives. These workers' own perceptions of whether they are coping with their existing levels of skills within or outside work challenge straight forward assumptions, underpinning the UK government's 'Skills for Life' agenda. These assumptions are about the existence of large-scale skills deficiencies and their direct impact on productivity with a more nuanced approach that emphasizes individual strategies for coping with literacy practices and their own literacy needs whilst highlighting those cases where skills gaps exist and where employees have indeed been positively affected by workplace courses. In all cases, there were significant gains in abilities for the individual worker initially. The

extent to which these were sustained over time and were translated into gains for the employer was much more mixed.

Implications for Adult Education Theory and Practice

Results of this study provide some new evidence on the nature and scope of formal and informal training activities for basic level employees. It also begins to trace how this informal training is structured and the kinds of decisions workers make as the learning process. This study also shows that formal training not only facilitates the capacity to master skills and competencies, but it also instills in basic level employees the motivation and the desire to learn more.

Boud and Middleton (2003) indicate that workplace informal learning was traditionally regarded as being "part of the job." However, viewing workplace informal learning as part of the job masks the origins of an entire set of workplace skills and knowledge as well as the importance of its facility. Due to rapid workplace changes, researchers are looking more and more into conceptualizations of workplace knowledge base that resulted from alternate, more continuous forms of learning. For example, Ellinger (2004) examines the concept of self-directed learning and its implication for human resource development. She acknowledges the benefits of self-directed learning in the workplace as relevant to both organizations and individual workers. Our study shows that a fundamental component of informal learning is SDL such as in the types referred to "Searching Independently for Information" and "Practicing without Supervision." Ellinger goes on to suggest that integrating SDL into HRD requires that the teacher or trainer match the learner's stage of self-direction, and facilitate the process of preparing learners to a higher and higher stage of self-directedness, such that learners who are relatively dependent, a more traditional approach to instruction is initially used in order to facilitate SDL. Such was the case in this study. As employees participated in the formal training they started to recognize their ability for self directedness in the everyday workplace learning.

In a recent study of SDL of undereducated adults by Terry (2006) also found that these adults tended to be less self-directing in the beginning of a learning opportunity but this gradually increased with more confidence and more engagement. Moreover, the results of this study indicate that workplace informal learning is not limited to a simplistic understanding of SDL such as independent mastery of work procedures, but encompasses the relationships between employees (as learners as well as workers), context and opportunities. For example, in this study we found that the informal learning can also result from "Mentoring or Coaching" as well as participating in "Focused Workplace Discussions" or committees. This workplace learning is a complex process that involves the interplay of employee agency, workplace relationships and interdependencies and the affordances of the wider environment. These variables in some cases promote rich informal learning, for example where 'doors are opened' to opportunities to expand and share knowledge and skills in supportive workgroups. In other cases, workplace discussions and mentoring/coaching can have unintended negative influences on learning, for example where the interdependencies of the workplace are undermined by feelings of lack of trust. Sociocultural understandings of ways in which knowledge and learning are constructed from social interactions in

the workplace (Taylor, Abasi, Pinsent-Johnson, Evans, 2007; Taylor, Evans and Abasi, 2007; Billett 2006) problematise simplistic versions of self-directed learning and point to reconceptualisations that can embrace the interdependencies inherent in workplace practices.

Results of this research extend existing frameworks for understanding informal learning. One particular framework that may be useful in interpreting some of our findings is the work of Eraut regarding the factors that affect workplace learning. Based on a series of large and small scale projects investigating informal learning in the workplace, Eraut (2004) described the triangular relationships of learning factors and context factors. Of particular interest to this study is the interplay among confidence, challenge and support. Workers in this study clearly stated the importance of their newly acquired confidence in seeking out informal learning after participating in a formal program. This confidence may be linked to what Bandura (1998) calls agency. A worker's agency changes as he or she successfully meets challenges in everyday work routines that require learning. At the same time, as Billett (2006) and Evans et al. (2006) have shown, the exercise of agency personalizes work by changing and shaping work practices. However, this confidence to take on new challenges is dependent on the extent to which workers felt supported in that endeavor. This support is not only provided by a superior but also through supportive co-worker relationships that are perceived to be important. As Eraut (2004) points out "if there is neither a challenge nor sufficient support to encourage a person to seek out or respond to a challenge, then confidence declines and with it the motivation to learn" (p. 269). As opposed to identifying productivity gains relating to both formal and informal training it may be more advantageous to better understand employee job satisfaction and engagement with the workplace.

A wider framework for understanding the organizational context is provided by Evans et al. (2006), who argue on the basis of extended research in more than 40 organisations, that interventions need to address both employee and employer needs. The involvement of employee representatives contributes to the expression of employees' interests and can reassure them that gains in productivity will not have a negative impact on jobs and conditions of employment, where this is genuinely the case (Rainbird et al. 2003). While learning needs to be seen as an integral part of practice rather than as a bolt-on, attention needs to be paid to the environment as a whole. Work environment as well as formal learning affects how far formal learning can be a positive trigger for further learning. A short-term timeframe and a narrow of view of learning, dominated by measurable changes in performance, will not enhance the learning environment and can stifle innovation. The concept of a continuum of expansive and restrictive learning environments can be used as a tool to analyze and improve opportunities for learning, using a five-stage process as described by Evans et al. (2006).

Furthermore, Evans et al. (2007) develop this into a social ecology of learning. A 'social ecology' of learning in the field of adult basic skills leads us to consider the relationships between the affordances of the workplace (or those features of the workplace environment that invite us to engage and learn), the types of knowledge afforded by 'essential skills' learning (including knowing how and 'knowing that you can') and the agency or intention to act of the individual employee, reflected in their diverse motivations. These are triangular relationships and mutually interdependent sets of interac-

tions. There are affordances for learning in all workplace environments. Some are more accessible and visible than others. The intention of employees to act in particular ways in pursuit of their goals and interests, whether in their jobs or personal lives, makes the affordances for learning more visible to them. The know-how associated with literacy practices such as report – writing or finding better ways of expressing oneself, and the confidence of 'knowing that you can' often develop as the person engages with the opportunity. The process of making the affordances for learning more visible itself can generate some employees' will to act on and use those affordances, and new knowledge and ways of working result. In the shifting attitudes to learning, the changing levels of know-how and the confidence that comes from 'knowing that you can' both stimulate action and the seeking out of affordances within and beyond the workplace in the form of further opportunities.

Recently, the Canadian Council on Learning (2007) signaled the importance of further investigating informal work related learning. The report goes on to say that there is little pan-Canadian information on who engages in informal training, how and why they do it and what types of practices take place. In the UK, the evidence to date suggests considerable diversity reflective of the complexities of the workplace context, variations in the quality of working environments and the differential positions of employees within workplace hierarchies. From a qualitative point of view this study of basic level employees provides some partial insights into these questions. More fundamentally, from a theoretical standpoint, reflexive and interdependent understandings of self directed learning, going beyond simplistic versions that emphasise independent mastery of work tasks, are needed to make sense of the ways in which employees take engage in and shape everyday workplace learning.

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