

ADULT WORKERS' ENGAGMENT IN INFORMAL-FORMAL LEARNING: INSIGHTS INTO WORKPLACE 'BASIC SKILLS' FROM FOUR UK ORGANISATIONS

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In the United Kingdom, the International Adult Literacy Survey (IALS) findings published in the 1990s indicated that up to 20 per cent of the adult population had low levels of 'functional literacy', leading first to the 'Moser Report (1999)' and then to the national 'Skills for Life' strategy (2002-7). The Leitch Report (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.

In a review of international literature on the impact of workplace basic skills training as measured by their effects on wages and employment probability, Ananiadou, Jenkins and Wolf (2003) draw out the conclusions 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 in the UK 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.

The specific contributions of informal learning are rarely addressed in large scale evaluations of workplace training but are nevertheless held to be significant by many workplace researchers who have worked in-in case study organizations going beyond cross-sectional surveys.

As Billet (2002) points out the more worksite 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 et al 2006 Improving Workplace Learning have focused particularly on this in relation to the basic level employees showing. For basic workers, the relationship between formal 'essential skills' courses and their spin-offs in informal learning will depend crucially on organizational environments and the extent of distribution of



opportunities for informal learning. The tacit dimensions of knowledge and skill are also germane to the exploration of informal-formal learning relationships. Evans, Kersh and Kontiainen (2004) described the tacit forms of personal competences 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. This previous research showed how aspects of employees' individual biographies as well as their prior experiences play an important part in the ways in which employees engage with activities and work colleagues, and learn through their workplace environments. Case analysis showed how adults' learning processes are negatively affected where recognition and deployment of their tacit skills, and knowledge by managers and supervisors is low. Conversely, positive deployment and recognition of capabilities gained through informal learning in and out of paid work sustains learning and contributes to positive learning outcomes. The development of awareness of employees' hidden abilities and tacit skills has to begin with the employees themselves. Modeling of individual and group learning processes can provide insights into adults' experiences by making the part played by tacit skills, often gained through informal learning, visible. Tutors and supervisors in college-based and workplace programmes could use a range of methods to make employees' tacit skills more explicit: teamwork, one-to-one tutorial help, 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 could 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.

The cases presented in this paper are drawn from a larger longitudinal study aiming 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 the purpose of Anglo-Canadian comparisons, involving 42 employees, and 6 supervisors/tutors.

The four types of workplace basic skills programs were chosen in the North and South of England from the transportation, cleaning and maintenance, administrative(research) 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 ('Laptops and literacy' is a typical title) and use teaching material that is generalist rather than directly related to occupations. Participants



are generally full-time employees, with an average age in the mid-forties and approximately 60% are male. 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.

A case-study of Coopers

Coopers is a large food manufacturer in the north-east of England, employing 460 core staff and 120 agency staff, that has gained national acclaim in the past for developing a range of formal learning opportunities.

The first learning centre was set up in 2001 within the main factory, on the initiative of senior management. Initially consisting of a small room with 5 computers, the learning centre became a learndirect centre in 2002, and then moved to a large purpose-built building in 2004. The company pays the salary of a full-time tutor and assistant and provided the funds for the new building, whilst learndirect finances the computers and resources. The main room in the learning centre is now equipped with 15 desk-top computers and an interactive class whiteboard. There are three other meeting rooms, one of which is equipped with video-conferencing facilities and plasma TVs. In the main hall, various cabinets showcase awards; "National Example of Excellence: business in the community skills for life award 2004". "The Reg Vardy "work-based learning award". "National Training Awards: highly commended". There are also stands displaying Learndirect and Skills for Life leaflets. The corridors are decorated by computer graphic images of the production process in the company, designed by learners at the centre.

The centre is also open to the local community. Its location next to the perimeter fence of the company with a door leading directly out to the street is indicative of efforts to create a learning environment that is accessible to the local community. In addition to computer and skills for life courses and job-specific training, the centre also offers courses such as flower-arranging which have been very important in attracting individuals from the company and community at large. These courses, which are happy and well attended events (as observed on visits to the learning centre in November 2004 and June 2005) are also used as "hook" by the tutor to attract individuals to Skills for Life courses.

The tutor is fully aware of the challenges of enlisting individuals on literacy and numeracy courses: "I've been here since August 2003 and I knew that I couldn't just go out on to the factory floor and say do you want to come in and learn how to read and write? I mean no one would ever dream of doing that so I had to be quite clever and put on activities that weren't related at all to reading and writing just to build relationships to get people in to the centre". Computer courses are an important means of overcoming learner barriers to developing their literacy and numeracy: "A lot of the IT courses are based around literacy and numeracy but the learner doesn't realise till the end, they think



they're learning spreadsheets or they think they're learning word processing but actually there's a lot of grammar, there's a lot of literacy and numeracy going through that.."

As of May 2005, 300 employees of Coopers have undertaken courses at the learning center. All learning takes place in the employees own time. According to the HR manager, "the employees see the learning centre as their own" and the centre has had a positive effect in boosting morale; "it helps create that feel good factor".

The company's reliance on the use of so-called "huddles" in which employees gather to share their working experiences, listen to company updates and opportunities for training provide a range of formal and informal learning opportunities. Such events allow the management to disseminate formal learning opportunities- in the form of participation in courses at the learning centre, and facilitate the pooling of collective experiences to enhance performance at work. Two of the five conceptual categories of informal learning highlighted by Taylor, Evans and Mohamed (forthcoming) are particularly evident in these meetings: "observing from knowledgeables" and "Focused Workplace Discussions". Such meetings allow employees to enhance their working practices through rexaming their routine workplace meetings ("observing from knowledgeables"). Such sessions allow for the critical questioning and exchange of working practices (rather than merely providing the top-down dissemination of company policy) and therefore represesent important sites for "focused workplace discussions".

According to the Human Resources manager, literacy and numeracy skills deficits can undermine the potential for employees to take advantage of the range of formal and informal learning opportunities presented by these meetings: "when we've done huddles, we've done various activities on site, there's people you'll find won't participate in it, and the reason they do that is because... they're not very good at reading and writing, some of the arithmetic, numeracy skills are lacking so this has helped bring some of them people on (the course)". The company encourages General Operators in particular to undertake task activities to enhance their work and develop greater insight into the working of the company as a whole. For example, one General Operator revealed that she had recently taken part in a "learning map" game in which employees found out more about the overall working of the company through participation in a board game. Tracy Beaumont, a "Quality Assessor" described how her fears over her literacy skills undermined her capacity to engage fully in group discussion and thereby hindered her capacity to benefit from the range of formal and informal learning opportunities afforded by such meetings: "its like if you go in a meeting and you read things I panic, I panic, you know what I mean I'm really like conscious about it....because like, a lot of people take the mickey because you can't read, and now I'm really self conscious of it".

The tutor at the company's learning centre similarly expressed the view that those with poor literacy and numeracy skills were less equipped to take advantage of staff development opportunities. "there's a lot of people who can't even read the communications put out, so a lot of people miss the opportunity to say like trips or awards or things because they don't understand the posters or they don't understand the literature that's like flying about within Coopers". The increasing "textualization" of the



workplace means that those who have literacy and numeracy needs are particularly vulnerable. As in the case of other organizations involved in our research, individuals have remarked upon an increasing use of literacy, numeracy and technology in the workplace. In the words of a production manager: "if somebody cut their finger 10-15 year ago we'd stick a plaster on and say there there, now there's a four page document we've got to fill in and how can we stop somebody else from doing it again."

Yet, the tutor also acknowledges that individuals with literacy and numeracy needs have also developed effective strategies for coping within the workplace: "we've got a couple of individuals who have come out with the equivalent learning... of a 5 year old.. which is quite alarming to think that there's kind of, he's operating kind of dangerous equipment, but it just proves that people with Skills for Life issues are very bright people because they've managed up to now with that amount of skill so you know you must give them credit..." . Such individuals are particularly prone to rely on informal learning opportunities as a means of compensating for their poor previous experience of formal learning (e.g at school) as well as their diminished capacity to utilise current training opportunities within the company. In this context, such informal learning opportunities as learning from colleagues ("observing from knowledgeables") were particularly important in allowing employees with literacy needs to survive in the workplace.

Courses are promoted through the above mentioned "huddles", notices, the company bulletin as well as through powerpoint presentation in the canteen. Each employee at the level of technician and above also undergoes a Performance Development Process (PDP) which reviews their work and sets learning objectives linked to the learning centre. According to the manager, "Now the goal is to roll that out across all our employees, so the GOs (General Operators), would have the same type of objectives, and that's when you see, you can start to see links coming in, at the moment we don't do that in a structured way as such but its another, its another tool to use".

The development of training opportunities within the company has led to a shift in emphasis from "informal" to "formalized" learning within the company. Bill Williams, a technician noted that when he first began working at Coopers over 25 years ago "I used to come to work on Monday and there'd be a nice piece of equipment appear and you had to figure out how it worked. While now it's a lot more, you do get trained for the jobs."

Yet, it is also noticeable that the company sets aside formal space for informal learning. As part of his PDP, Bill Williams was given time off to find out about other sectors of the company and learn from their work through observation and questions: "I did two days walking around where they fried the crisps to learn how they do their job so I found out how my actions impact on them." Hilary Benton was actively encouraged to engage in an ongoing process of informal learning as part of her Front line Employee to Front Line Manager programme (a fast-track promotion scheme for graduates) which entailed her learning about a variety of jobs at General Operative, supervisor and management level through the process of undertaking these jobs.



The learning centre is an important site for the complex inter-weaving of formal and informal learning opportunities. The learners have the opportunity to undertake a variety of formally accredited learndirect courses in Skills for Life and ICT but are also given scope to engage in independent "self-directed" learning. In addition to guiding learners through SFL courses, the tutor also leant laptops to learners so that they could experiment and develop confidence with the technology in their own time. For Maggie Taylor, a General Operator, such an opportunity was vital in allowing her to overcome her fear of using technology and experiment with the computer in her own time "I'm very nervous with computers, very nervous...but Geoff loaned me an old laptop and I was okay with that I could just pick it up when I had a spare couple of hours. "

For 44 year-old Michelle Lewis, who had worked her way from the shop-floor to being a "Front-line manager", the process of undertaking LearnDirect Level 1 and Level 2 numeracy ICT courses at the centre were an important means of validating and "formalizing" a range of informal learning that had occurred during her 25 years of employment at Coopers. She had worked her way up the organisation by "being nosey and being in the right place at the right time". She had volunteered to stand in for supervisory roles (during illness, holidays etc.) and had thereby informally acquired the requisite skills for undertaking these jobs but was still left with a lack of confidence that emanated from a sense that her skills acquisition had not been formally validated. "I need to do more on the computer...I need to do the spreadsheet course to see whether I can learn like that, because all I know on computers is what other people have shown me." The process of undertaking the course had consolidated her informally acquired skills and had, most importantly, boosted her confidence. In particular, the undertaking of these courses had allowed Michelle to feel more confident in relation to those who had received an extensive formal education in relation to her own largely informally-acquired skills:

"I think it has helped, I certainly felt more confident once I'd done it, cos I mean I didn't go to college or university and like I say I'm a front line manager in there and a lot f the mangers coming in have got degrees and you know so it just means if you're sitting in discussion, as many times I've just been working something out off a spreadsheet whatever a piece of paper, how longs that going to take us to do, I've been able to give the answers before, and it just makes you feel a little bit better within the group"

During follow up in-depth interviews conducted in 2007 Michelle felt that the attitudinal effects of the course had been most long-lasting in so far as impact of the course in boosting her confidence continued to inform her work: "its probably like in my subconscious all the time".

Tracy Beaumont, aged 38, who had left school with no qualifications undertook a range of Skills for Life Learn Direct courses in response to self-acknowledged problems with literacy also sought to engage in formal learning as a means of addressing a deep-seated crisis of confidence. She had learnt how to use graphs at work without any formal training but saw the course as being largely "for her own benefit": " at times I think I'm really numb (stupid).. but that's the way I am." The process of undertaking the courses is



a way of finding out what she can and can't do and possibly convincing herself that she isn't so "numb" after all. She attributes her low confidence to bad experiences at school which has also conditioned the nature of learning as an adult: "I think that's what puts me off going to college cos I would love to go to college but I think that's what really puts me off...I don't know I think, I just think well, school was that bad, it would be the same you know what I mean."

Tracy's perspective on learning mirrored the perspective of many other learners who viewed learning at work as being less intimidating and free from the associations of formal learning at school. Another key advantage of undertaking courses at the workplace was flexibility. Bill Williams appreciated the opportunity to register at the learning centre and then undertake the bulk of learning at home: "I'm old fashioned, once I finish work I want to go home.. learning is nothing to do with work, its still on the premises. I take this home (i.e. the disk) and I'll do this at home, I can look after the bairn as well while I'm doing it at home, I can't when I'm here... I just want to get out the premises, even if they had a pub here, I wouldn't want to come and have a drink I'd just want to gohome, even if its free. Finish work, home." . This model of learning challenges the distinction between "workplace learning" and other types of learning

The learning centre at Coopers is currently undergoing a period of uncertainty following an extremely scathing OFSTED report in the summer of 2007 which classified the learndirect sector as 'inadequate' in all aspects (Effectiveness of provision, Capacity to improve, Achievement and standards, Quality of provision, Leadership and management) apart from 'equality of opportunity'. The weaknesses highlighted in the report included 'low success rates on ICT courses', 'inadequate coaching and training' and an 'insufficient number of qualified staff'. The report nonetheless recognized under the category of 'equality of opportunity' the strengths of the centre in providing a positive physical environment that was accessible to company employees and the community at large.

The publication of the report brought to a head various tensions between the company and LearnDirect that had been simmering for some time. According to the HR manager at Coopers, Learndirect were keen to increase the ratio of community to company learners (currently 60% from company and 40% from the community) in order to increase the potential pool of learners signing up for courses. The company felt increasingly "restricted" by compliance with the LearnDirect national contract and had already begun to seek alternative provision. The company felt aggrieved that OFSTED had not taken account of the type of provision that was offered at the learning centre and claimed that OFSTED had implemented too restrictive and college-centred criteria for inspection. Whereas OFSTED highlighted an insufficient number of trained staff, the company felt it was unreasonable to expect an organization that was not a formal educational provider to provide more than the 2 tutors who are currently based at the centre. OFSTED also criticized the centre's use of "untrained" staff in the form of youngsters who were providing additional support as part of their New Deal work experience. By contrast, the company stressed the value of their involvement in the centre both for the learners (who



benefited from additional support) as well as the young people themselves who gained valuable work experience and job satisfaction.

The company is currently making arrangements for a local college to provide courses in the learning centre (utilising the two tutors who are currently based at the centre). From the company's perspective this will provide more "flexibility" in terms of allowing them to offer a wider range of courses, including those at a higher level. Such an arrangement has the additional advantage of protecting the learning centre from external inspection. In the meantime, the learning centre is open for employees to engage in learning without embarking on formally accredited courses.

Analysis: formal and informal learning opportunities at Coopers.

Coopers provides for a range of formalized learning within the company structure but also accords official space for the opportunities for informal learning (observation of other employees, sharing of ideas in huddles etc). The increasing "textualisation" of the Coopers work environment has made employees who struggle with poor literacy and numeracy more prone to miss out on formal training opportunities and increases the significance of 'informal' learning for these particular employees.

The learning centre represents an important site for the inter-weaving of formal and informal learning opportunities. It is noticeable that the popularity of the learning centre rests partly on it not being too closely associated with formalized learning. The tutors loan of laptops and accordance of space for informal self-directed learning on computers ("searching independently for information") has been an important component of the learning centre.

The learning centre initially attracted national acclaim from institutions such as Business in the Community for its innovative efforts to provide learning opportunities that straddled the company/community divide. Yet, the centre's incarnation as a recognized LearnDirect centre has also generated various problems that stem partly from differing perspectives over what types of formal and informal learning should be valued. Whereas the OFSTED inspection highlighted a failure to conform with nationally recognized standards and assessment procedures, the company embraced a looser vision of learning that included both formal and informal elements.

HLN Manufacturing

HLN Manufacturing is a large engineering company specializing in the manufacture of parts for cars with a global workforce of approximately 50,000 employees. In its West Midlands site (which is the focus of this case-study), the company has 323 employees, including 15 managers, 40 technical staff and 260 operatives. The number of employees on the site has shrunk from over 2000 in the early 1980s to its present size as a result of the introduction of computerized technology.



As part of their everyday work, machine operators (who make up the bulk of the learners that are the focus of this case-study), monitor and calibrate computerized machinery. Their work entails the use of "basic averages" to monitor output as well as the filling in of in production plans. Several machine operators remarked upon the increasing prevalence of target-setting and report-writing, manifested in the introduction of "lost-time" analysis in the last 2 years in which forms have to be filled in on an hourly basis if production quotas have not been met. In the words of Bill Renfrew "everything is around production now and you have to hit targets, without the targets you're not making a profit so you know, its all around that now. And there are some visual sheets, big sheets that you have to write down so anybody can walk past and say why didn't you hit the target...there is a lot more paper work now."

Three Union Learning Representatives (ULRs) were instrumental in the establishment of a 'Skills for Life' course that ran from May 2005 to July 2005, consisting of 1 hour 30 minute sessions for 10 weeks. Bill Renfrew, who played a particularly instrumental role in the establishment of the course, found out about the Union Learning Fund (ULF) during the course of his involvement in the company union committee. He volunteered to train as a ULR and formally took on this role in January 2004.

In order to prepare for the establishment of a course in the company, Bill Renfrew sent out a questionnaire to all employees asking them about the learning needs and preferences, 10% of which were returned. The majority of those who returned the questionnaire expressed a preference to undertake a computer course; "there were very few that wanted the basics in literacy and numeracy". Frustrated with his efforts to gain funding from the Union Learning Fund, Bill Renfrew and the other ULRs decided to establish a course on the basis of their own initiative. "I just knocked the union on the head and I went my own way and I got in touch with Walsall college, and that's how the course started off."

Having entered into discussions with the local college, the ULRs were advised that they should set up a literacy course as a "first step" to learning. Bill Renfrew and the other ULRs subsequently encouraged employees to embark on a literacy and numeracy course as a means of paving the way to a computer course through ascertaining their level in basic skills and addressing any weaknesses that might undermine their capacity to undertake an ICT course. The ULRs encountered a frustrating 18 month delay in the establishment of the course as a result of complications over funding which meant that "expectations, enthusiasm of learners was let down. .we've had to build them up again".

The course began on the 19th May 2005 and finished on the 21st July 2005. Officially entitled "Key Skills Communication – Level 1 and 2" and "Key skills Application of Number Level 1 and 2" the course consisted of 2 classes lasting for 1 hour 30 minutes for 10 weeks in the employees' own time. The classes were run in the middle of the day on Thursday in order to fit in with employees who were either about to start or finish their shift in the middle of the day. The company has been supportive of Bill Renfrew's involvement as a ULR, giving him time off each Thursday to be on course and help other



learners. Bill reports to a steering committee each month made up of the union, HR management and the local college.

A total of 8 employees, 6 machinists, 1 fork-lift driver and 1 "craftsman" undertook the course which was run in the "union room", a cramped room without windows. The age of the employees, all of whom had finished formal education at the age of 16, ranged from 32 to 58.

For the majority of employees, the motivation to embark on such a course was tied to generic rather than job-specific factors. Mike Philips, who had worked for the company for 30 years, embarked on the course "for general interest, general knowledge, and to improve myself. Because I'm one of these, I truly believe that as long as you keep your brain active, you'll stay fit and healthy, if you just relax and you just vegetate, I don't think you'll live long you won't have a long life because everything will just shut down." Mike harboured long-term plans to study the German language. He was encouraged by the accessibility of the course and was inspired to learn by the knowledge that he was the only member of his household who had no qualifications; "there was only me in our house, that had got no qualifications or certificates or anything, I mean even our dog had got a pedigree, so I thought its time to catch up."

Despite the increased use of report-writing and computerized machinery, all the employees felt they coped adequately with their existing skills in the workplace, with the exception of one employee (Malcom Owen) who struggled with the metric system (which had been introduced 5 years prior to the course) and who was subsequently dissatisfied with the course since it failed to respond to his specific requirements. From an overall company perspective, The Human Resources manager cited the goal of offering "general development to staff" and increasing "staff morale" as being key objectives.

The lack of job-specific motivations for undertaking the course becomes more understandable when one considers the significance of informal learning within the organization. Trevor Stephens (one of the ULRs) described the significance of what he termed "hands on learning" in which employees were shown how to use new technology and develop their skills whilst working:

"I think a lot of people though, probably a lot of people on the shop floor, they've been there for years and years, probably are very good mathematically although they haven't done it at school, but by using, through engineering and one thing and another they probably are quite good. We're sort of more advanced maths than sort of basic, sort of equations and working out surface areas and stuff like that but probably having to put it down on paper that's where they could struggle."

Through a variety of informal learning processes, including "Observing from knowledgeables" (in particular learning a new task or the same job in a different way by observing a more proficient co-worker), "focused workplace discussions" and "mentoring and coaching", the employees had developed proficiency in the specific skills that were needed for their job. More formalized one-day training would take place in such areas as



health and safety as well as in response to the introduction of new technology. It is noticeable that 2 of the learners who were interviewed in-depth made a point of expressing their appreciation of the course as a means of practising skills which they would not normally have the opportunity of developing during the course of their working lives. Tim Roberts explained his situation as follows: - "when I was at school we did essays and constant work since I've left school I'm just manual, I'm just making stuff you know, there's nothing really lengthy that I have to write anymore, and I like to write but I just don't get the chance to." For Tim, the course was a useful means of reassuring himself that he had not lost the skills that he had learnt at school, whilst also instilling a greater degree of challenge: "You just...sort of level off and you think well am I as good as what I use to be or...you know, am I pushing myself hard enough and in doing that its shown me well...you're as good as what you was if not a bit better now."

Similarly Bill Renfrew appreciated the opportunity to reawaken skills that had been largely dormant since his time at school. As in the case of other ULRs, Bill's motivation for participation in the course was also tied to encouraging other employees to engage in learning: "I thought it was really good, especially the numeracy and literacy, I'd left school 40 odd years ago and you use some of it but you don't use a lot of it, so going back to the numeracy and the literacy was really hard to begin and I did want to start learning again which I did do. So its very good, its very good and if more people can get involved and get these people learning, I'm sure they'll...sometimes you feel no I don't want to do that again but once you start its very good."

As in the case of other organizations, the learners stressed the advantages of studying in the workplace rather than a college in terms of convenience and accessibility. Trevor Stephens mentioned that "you're already here...which is the beauty of things, I use to go to the college, I'd be looking at my watch, got to go in a minute got to go in a minute, there's no sort of time limit here you can just take your time." Similarly Tim Roberts mentioned that "I don't want to be going to that environment (i.e a college) but because it was set up here and everybody is in the same boat you know, you can go and do it and yeah I felt comfortable doing it that way."

All the learners undertook Literacy Level 1 and Level 2 tests at Walsall college at the end of the course. The undertaking of the exams in a college environment was a source of concern for some learners. Trevor Stephens mentioned that "I think a lot of people were concerned.. I think especially the older you get, to sort of walk in to college...You suddenly feel as though you're being stared at...by the young kids."

At the request of Bill Renfrew and other ULRs, the company built a new Learning Centre in 2006. Funded by the company at a cost of £10,000, the learning centre consists of a large training room and additional room equipped with 4 computers. 3 of these were donated by company employees whilst the 4 was purchased on the basis of money the learners won from a NIACE Learners Group Award in 2006. The walls of the computer room display the NIACE Learners Group Award and Walsall lifelong learning "certificate of recognition".



The majority of learners from the literacy and numeracy course proceeded to be involved in NVQ Level 1 and Level 2 computer courses run at the new learning centre. In April 2007, the number of learners on these ICT courses, which were taught by a tutor from Walsall college who also provided additional laptops, had declined from 18 to 10.

In keeping with their previous learning motivations, the learners interviewed as part of the follow-up in-depth interviews cited generic rather than job-specific reasons for wishing to engage in this course. Mike Philips who had now embarked on NVQ Level 2 in computers (having completed his level 1) spoke with great enthusiasm about his new found skills: "and now I can do it myself, fantastic, I switch the computer I can do whatever I like now, send emails you know its absolutely brilliant. I mean it doesn't affect my job but if I needed a job its there. I mean I was 54 on Easter Sunday so I'm still learning at 54 its great. "He took particular pleasure in having booked his holiday online. His motivations for learning continued to be associated closely with his interests in history and languages: "I still want to learn the languages. Its arrogant of us to think that everybody should speak English, we should be able to communicate in their language also, you know, to be fair."

Trevor Stephens, who had proceeded to study a CLAIT course at college was considering the possibility of training as a social worker through the Open University at the time of the second follow-up interview. The other learners had embarked on computer courses as a result of "general interest". For Jon Barker the course had the additional advantage of facilitating his work as a union convener.

At the time of the most recent interview in April 2007, Bill Renfrew was still pursuing means of gaining additional funding. He felt disillusioned by his inability to gain any funding from Union Learning Fund. He was also contemplating ways of promoting the courses more effectively.

Analysis of HLN Manufacturing

The establishment of a SFL course at GKN represents a grass-roots initiative on the part of ULRs with the wider support of the company and local college. It is noticeable that the learners' motivation for engaging in the course was underpinned by a high value placed on learning for its own sake (and its diverse ramifications on other aspects of their lives)

Though the company has undergone major organizational change in terms of embracing new technology and implementing more rigorous surveillance procedures which entails increased forms of documentation, it is noticeable that the vast majority of learners have coped adequately with their existing literacy and numeracy skills. The employees employed numeracy skills (averages, working with diameters) without having formally acquired these skills on a course. Informal learning processes had equipped all the learners (with the exception of one employee who struggled with the metric system) with the necessary skills to undertake their work. The course was regarded as an interesting means of ascertaining the formal level (or "classroom level") of their skills which had been developed through informal development in the workplace.



The Weapons Defence Establishment

The Weapons Defence Establishment is a weapons manufacturer with three and a half thousand employees. The company was approached by Basingstoke College to run basic literacy and ICT courses through funding from the South East England Development Agency (SEEDA). The 'ICT and English' classes consist of one and a half hour sessions over 22 weeks with approximately 7 learners in each class. The courses take place at the company's impressive training centre which is located several miles from the main site amidst pleasant parkland. Each learner was assigned a computer from the beginning of the course. According to the course tutor, the goal of these courses is to "learn basic computer skills and brush up on English". The training manager at BGV saw the 'ICT and English' courses as a useful opportunity to address an imbalance in the distribution of training within the company:

"At the end of the day, we're in a competitive market place for some very clever physicists, mathematicians, engineers, metalogists, so inevitably if we end up getting our hands on those individuals we often give them all the development within reason that they need, and we need to develop them in the job that they're doing, possibly at the expense of some of the people at the lower end. As a result, this program has given us the opportunity to give those individuals some development as well".

Most importantly, the running of the 'ICT and English' courses have facilitated the company's bid to encourage employees to take on more responsibility within their existing job roles as part of an overall trend towards the "leveling out" of management structures..

"There are fewer people within our organisation than there were 10 years ago. As a result of that we have been asking those people to take on more, but er...because we weren't developing them often they've said "I want to stay where I'm comfortable" "No I'm not prepared to take on more". But in light of us giving some of this additional development to them we have seen more of a..."I'll have a go at that" attitude from them. You've given me something so...yeah I've got that little bit more confidence to have a go at it."

All the learners remarked that they had taken on increasing responsibility in recent years, including such tasks as filling in self-appraisals, dealing with contractors, sending emails and writing risk assessments, all of which also increased their exposure to technology. The process of delegating responsibility to lower-level employees has entailed an increased emphasis on both formal and informal learning opportunities within the



organization. Employees are encouraged to sign up for courses through their appraisal meetings which are also tied to pay and promotion prospects. For example, the undertaking of a "risk assessors" course allows lower-level employees to undertake risk assessments which have previously been the remit of more senior colleagues. Equally, employees are encouraged to "show initiative" in taking on more responsibility in the form of more challenging tasks that depend on informal learning "on the job". Liz Andrews, a Health Physics Surveyor described this company ethos as follows: "We've been more responsible for ourselves and looking after our own work, we've been given a bit of slack too, to use our own initiative...whereas in the past they would book everything in for us....and we'd say yes or no where as now we can more or less go off and do it." Liz Andrews described the development of her job in terms of both formal training (in her case a period of extended training in a college) as well as "hands on learning it in the workplace". Roger Taylor highlighted the significance of "Focused Workplace Discussions" as being a particularly important component of informal learning in the workplace: "Well we work as a team, and... I mean you could be on a job and somebody might have had a similar type of job so you always have a chat with somebody, did you know about this? Or have you had any experience of this? so...we exchange knowledge between each other all the time. It's part of your job.

Oliver Green (b. 1944), who similarly highlighted the increased range of formal and informal learning opportunities that accompanied the delegation of responsibility, felt that his job position was now more vulnerable "I think I'm going to have to fight to er...keep the grading, as far as that work is concerned. They're expecting me to do all these complicated things which I never had to do, and involving the computer science and technology.." Although Oliver Green had undertaken a specific course to use a computerized testing facility, his job also depended on informal learning in the form of "mentoring and coaching" from his line manager.

The Weapons Defence Establishment involved the unions representing lower-level employees (Transport and General Workers Union and Amicus) from the early stages of setting up the courses. The courses have also allowed the management to allay union concerns about the above mentioned imbalance in training opportunities within the company: A road show was organized by the college to promote the courses. Other forms of promotion included putting messages in pay-slips, advertisements in staff publications and notices on the intranet. The literacy aspects of the course were not highlighted at this stage.

The programme manager at the college described ICT as a useful "hook" for engaging learners in literacy: "People see a computer as a way of making them more skilled generally both at home and work....whereas they can't always see the relevance of English quite as easily.... The other reason is that they don't feel there is any stigma attached to doing an ICT course....whereas there is sometimes a certain amount of sensitivity and embarrassment attached to a generic English courses". More pragmatic considerations also lie behind the process of embedding literacy in ICT: "Combining English courses with computers is very useful in terms of engaging learners...It is also very useful from a college point of view in allowing the college to meet its targets. If we

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were not combining ICT with English, we would not be meeting our targets." In addition to these courses, the company has also run a number of dedicated literacy courses for a smaller number of employees (often only 3 learners in each class) with major weaknesses in this area.

According to the programme manager at Basingstoke College of Technology, funding from the local development agency (SEEDA) has been vital in allowing for an "infrastructure" to be built up (in the form of the so-called "Context Programme") that allows her to play an active role in approaching organizations and brokering the establishment of courses. This funding has allowed the programme manager to establish contacts with companies and undertake rudimentary Organizational Needs Analysis (ONAs) before tailoring courses to the specific circumstances of each organization.

This case-study focuses upon the longer-term impact of a course that over a 22 week period from 2004-2005. The majority of learners on the course were "machine tool fitters" involved in the maintenance and supply of machinery parts. It is noticeable that the learners were motivated by the need to develop their ICT rather than literacy skills. In keeping with the "learning by stealth" approach, most of the learners were not aware of the literacy component of the course. Roger Taylor mentioned that "I think we were slightly misled from the initial literature that came up, because it turned out to be more of a literacy thing, and er...we said well we haven't got a problem with it but it wasn't something we expected when we initially went forward for it. So we just saw that through as well". For Gary Thompson, the concealed literacy component had various advantages: "I think it was probably good, the fact that I didn't know before, because I probably wouldn't have gone otherwise." He explains his reluctance to go on an more explicitly literacy course in terms of "Basically because I'm not very good at spelling. So sort of a fear in that area would have put me off...He believes this sentiment applied more widely to employees in general who would have been "frightened of either not being able to spell or frightened of being sort of talked down to I suppose."

As in other sites, the learners emphasised the advantage of learning in the workplace as opposed to a college. For Gary Thompson, the advantage of doing course in workplace is that "it isn't such a big decision for one. So its quite encouraging... although you're committed to seeing the course out, there seems to be a lot more...effort is the wrong word, effort commitment to travel somewhere else." Undertaking a course at college involves more of a risk of "getting somewhere and finding that you're a bit of an idiot. Where as locally it seems quite acceptable to say, right that's it, I can't do it I've had enough". There's less "embarrassment".

In terms of course outcomes, the majority of learners emphasized that the course had boosted their confidence in dealing with computers. For Oliver Green the literacy component of the course represented merely an opportunity to "brush up" on his existing skills. The course had inspired him to buy a computer and equipped him with greater confidence in dealing with technology in general. Gary Thompson maintained that his literacy skills had been benefited indirectly from course in so far as he was now able to rely on spell check to assist his writing:



"I wouldn't say I was dyslexic but yeah I tend to really not see letters or things, so really of course no. The computer has helped with this, the functions, but the actual spelling no, my spelling will always be the same I'm afraid....it's the functionality of the computer that's improved, not spelling...the end product is better. The actual thing (ie level of literacy) is exactly the same."

The course also allowed for the development of a variety of informal learning opportunities. Oliver Green was one of several learners who bought a computer during the course so that he could consolidate his newly acquired skills at home through independent study: "I used to finish off what we were doing in class at home". For Gary Thompson the course boosted his confidence and allowed him to develop further ICT skills through "self-directed learning" and exploration: "I would say basically its increased my confidence to experiment...really until you get where you want. Or at least experiment for a while until you find you can't." Mike Swan similarly commented on his increased capacity to experiment with ICT: "with the computer course it helps you because obviously if you're waiting for a job and you think well I'm waiting for that bit of paper work here and you think right well I'll have a go at that, and see if I can get it checked."

The impact of the course was extended further into the workplace through the employees informal pooling of individual experiences and recollections of the course. Roger Taylor described this process as follows "we've got a computer we can use at work, ...and er...its one we share, I mean all the guys in the office have got their own, but there's one in the workshop that we can share and Stans doing spreadsheets and stuff....so he says yeah can you remember how we did this? So we sit down together and work it out, from the course that we did, the training that we had, somebody might remember something."

The longer-term impact of the course has been shaped by individual opportunities for career development within the company. At the time of follow up interviews conducted in October 2006, Mike Swan and Gary Thompson had been promoted to the position of "Works Supervisory Officer" Both employees expressed the view that the course had helped them prepare for their current job which involves extensive use of ICT in order to undertake risk assessments and deal with contractors.

Mike Swan had been given the opportunity to undertake NVQ Level 2 course in IT. With no prior experience of computers, the course had been important in giving him the "confidence" to work with computers and had allowed him to progress to more advanced study. He was supportive of the overall company approach towards training: "the more training you do then obviously helps with your appraisals and pay and things like that.

Whereas Mike Swan had previously not attached much significance to the literacy component of the course, he now felt that such skills benefited his current job role: "I realise that it was quite an important part...before I wasn't really writing too much, and now obviously I use it a lot more, do more handwriting as well as on the computer."



Both employees expressed the view that the course had boosted their confidence in dealing with computers and had also encouraged them to buy computers at home; both stressed the value of the course in allowing them to help their children with their homework. Although Gary Thompson viewed the course as a been "very good step up", he expressed a more negative view of the company's motivations for running the course: "since their training is very much to suit themselves, they send us on these courses and they get work done that they would normally have paid higher grades to do...so its beneficial to us but I think they get more out of it, and the other thing is with this company, they like their perception of investors in people, their little logos etc, so I think its part of their plan but overall I think they get very good value out of what they put us on."

The other employees had also taken on more responsibility, whilst undertaking the same job roles, as part of the company's strategy of delegating more demanding work to lower-level employees. Undertaking the course and a willingness to undertake higher level tasks had allowed Ralph Welsey (b. 1953) to be positively assessed in his PDG (peer development group) which had led to a 5% pay increase. But he still felt disgruntled by his salary of 14, 800 a year. The computer course had facilitated his capacity to take on increased administrative duties. "it adds to the variety" "obviously its more interesting than sweeping up, but then you've got the thing going, at what point do you say I'm doing this additional work and I think I should be earning more and I'm not. And that's going to start eating away, its not worth doing"

Frustration on the part of some learners that increased responsibility had not been accompanied by increased pay and promotion opportunities was accompanied by a degree of perplexity over opportunities for further learning. Whereas Mike Swan had been offered further training in ICT Level this opportunity had not been offered to other employees.

From a management perspective the courses have been a success. By October 2006, 400 learners had completed the IT and literacy courses. The training manager claimed that "The course has been helpful in our efforts to make the workforce "feel as one" so to speak. Previously.. as part of the civil service.. there was much more of a hierarchical structure..those at the top are skilled and then there is the rest. The courses have given people more confidence and opportunity to engage with computers. It has given them more flexibility. Previously there was much more of an "old culture" and a hierarchy: "this is my job.. this is what I do". The courses have helped to "broaden people's horizons.. people are now more willing to take on new roles".

Analysis of the Weapons Defence Establishment: Formal and Informal Learning opportunities.

The levelling out of management structures within the Weapons Defence Establishment has increased the significance of both formal and informal learning opportunities. As part of taking on more responsibility, employees are encouraged to commit themselves to training opportunities through the appraisal system. Whereas previously salaries were



consistent within grades of the organization (and negotiated by the union), in the current system promotion and pay depend on individual performance. In this context, employee involvement in formalized training has the potential to bring benefits in terms of promotion and pay.

The "IT and English" courses at this organization have been a success in so far as they have recruited a large number of learners over the long-term. The popularity of these courses indicates the importance of workplace courses being tailored to the priorities of the organization in question. In this case, such courses have responded to major structural changes in the company involving the delegation of responsibility to lower-level employees and they have been utilized to address a perceived training imbalance amongst the different strata of employees.

The levelling out of management structures also has major implications for informal learning. The expectation that employees should "take on more" and "show initiative" means that employees are frequently given greater scope for learning about new duties through "on the job" experience at work.

Thorpton Local Authority

The publication of the Moser report in 1999 provided the impetus for the implementation of Skills For Life courses in the borough of Thorpton, which employs between 1, 500 and 1,800 staff. Union Learning Representatives (ULRs) have played an important role in implementing a series of Skills for Life courses at the local authority's learning centrelocated on the premises of a refuse centre- in partnership with the learning centre manager, Barking Adult College and the College of North East London.

The courses, entitled "IT and English" and "Communication Skills at Work" last for 6 hours a week over a 5 weeks period and are designed for a range of "front-line" staff including cleaners, care-takers and refuse collectors. Funded by the Learning and Skills Council (via the local colleges) and facilitated by the local authority's release of employees during working hours, the courses aim to give the learners a chance to "brush up" or improve their literacy skills with the chance to take national tests at Level 1 or 2. In terms of the promotion of the courses, Penny Robinson (learning centre manager) met individuals in small groups and also discussed the courses at staff meetings. Micky Neale, a ULR who was instrumental in the setting up of the courses stressed the importance of retaining confidentiality around the learners' progress on the course; all learners cover the same programme but at different levels and line managers are not informed of the literacy levels of their staff. The tutor described the importance of addressing a lack of confidence amongst learners and of trying to challenge the tendency to associate learning with school:

"I think I've lost track of the number of people that come in to that course



and they'll pull you to one side and they'll say look I was never very good at spelling, er...I wasn't very good at school and you have to say to them look that's not what its about, its about...whatever you want to do in this classroom, whatever you feel your needs are we can address them here so don't, its not a case of testing you. You've got this 3 hours for the next you know 10 weeks to develop."

The tutor feels that the courses have been effective in addressing many of these fears and negative associations:

"...I feel quite happy that we've gone along with it because I've had so many say to me I didn't want to come here. I was thinking this was going to be like going back to school, and then they said you know, a lot of them at the end said I've really enjoyed it, thanks you know, because they're not expecting that kind of relaxed, you know treated as an adult, you know do it at your own pace..."

This case-study focusses on caretakers and cleaners who undertook a "Communications Course", involving literacy and ICT for 3 hours a week over a 5 week period from January 2004 onwards. An increase in report- writing in order to document damage, accidents and instances of vandalism formed the underlying rationale for the involvement of these caretakers in the course. In the words of the learning centre manager:

"we've just run a course for caretakers now in theory they virtually tick boxes that should be the job, but they're finding that they're having to write a little bit more information on forms, and I think that does worry some of them because they all say well my spellings terrible, my handwriting is terrible so they are aware that perhaps they're having to...write more and they're being, and their handwriting and their spelling is being noticed more than perhaps it was 5 years ago..."

The care-takers had learnt how to undertake their current roles by a combination of formal and informal learning. Each newly appointed caretaker is formally assigned to a more experienced colleague who guides them through key duties, such as cleaning and keeping records of damage to the property, through an informal process of "mentoring and coaching" (one of the key categories of informal learning identified by Taylor, Evans and Mohamed). In addition caretakers periodically undertake one day training in such areas as health and safety, manual handling and "dealing with violent people". Abdul Nazif emphasized the importance of skills acquisition through work experience: "I didn't know how much was involved in cleaning, until I got this cleaning job, it's not an easy thing, its complicated, there's chemicals, water, amounts, substances, how you do what you do, when you do it, the temperatures effect, there's certain things you have to really get to know, of course- you learn from experience."

The majority of learners emphasized the advantages of undertaking a course in the workplace. In stressing the advantages of learning with colleagues in a familiar setting, Bob Murphey also revealed that such sessions allow for a considerable degree of informal learning based on the mutual support and exchange of knowledge on the part of

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the learners: "everybody's in the same situation as me, and we all try and like help one another out like if we can, as well as Malcolm, so yeah its quite good...you know them so its not too bad, you're not frightened l(of) asking for help in front of the people." For Ryan Taylor the course allowed many employees to challenge the tendency to equate learning with education at school: "a lot of the attitude from the guys in the workforce was er...well I'm too old to go back to school and they got that impression about adult learning, its like going back to school and some guys have that impression but once they actually did it it was quite different."

Several of the learners who were interviewed in-depth felt the course had improved their use of literacy in the workplace. Trevor Woodford maintained that the course had improved his capacity to fill in reports: "before (I was) just guessing where it went really. Its sort of the same for me but it's a lot better now I know where to put things". Trevor also asserts that he is "A lot better at writing letters, and we even done a...how to talk on the phone, speaking on the phone to someone, or making a complaint." He gave the example of writing an email to the council complaining about the tiles in his kitchen: "without putting it nastily I wrote a decent sort of email to them and I got a reply back with the same sort of manner I wrote the email in. Whereas before I suppose I wouldn't' have even bothered you know.." During the course of follow up in-depth interviews in 2007, Trevor Woodford revealed that he had taken on a more supervisory role as a caretaker and had proceeded to undertake various computer courses at the local "civic centre". He regarded the course as being useful in preparing him for the next stage of his career as an "estate officer" which would entail more office administration and contact with contractors: "when I do move on I'll have the confidence to do it.". The course had therefore generated the potential for various informal learning opportunities; by boosting his confidence the course had encouraged Trevor to apply himself to higher level roles in which he would develop the requisite skills through on the job experience. Trevor would also engage in "self-directed learning" by referring back to his course notes in response to specific tasks at work: "if I'm doing something that was related to that course then I would look at my notes to help me".

Bob Murphey had previously employed various strategies to deal with report-writing including using the first letter of each word as a shorthand ("W for window...B for broken") as well as reliance on his line manager. The course allowed him to undertake his job with greater self-sufficiency: "it makes me feel really good, cos now I can fill in forms and write down what flats and all that, what problems are going on in the flats. Now I don't have to keep sneaking around to find someone else to keep spelling it for me, I can try and have a go at it myself." During a follow-up interview in 2007 Bob Murphey revealed that he had also taken on more responsibility as a care-taker (whereas previously he had been more involved in cleaning) and had undertaken further computer courses at the learning centre which facilitated his use of email to communicate with his partner in Brazil. He now felt more confident about filling in forms (e.g evaluation forms) as part of training sessions.

Abdul Nazif provided a less sanguine view of the capacity of one course to make a substantial impact on working practices: "putting something good into something that's

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spoilt for so long its not going to make it right, so much damage already, Malcolm (the tutor) did a great deal of work on me, but it didn't really put the picture right." Yet, Abdul Nazif underlined the significance of improving his literacy skills in order to fulfill his goals of gaining promotion: "I wanted to better my position at work, cos I don't always want to be doing manual work they're talking about a supervisors job now for me, and you find that most of it where...40% of it officially is paperwork.." Abdul had recently developed informal, self-study techniques in recognition of the importance of developing his literacy skills: "I've adapted at work lately a little notebook which I write down all the incidents down and I'm getting really in to that, because its like identifying problems and putting it down, expressing myself and dates and time and all that." In 2007, Abdul Nazif was still undertaking a lower-level caretaking role which was effectively a job as a cleaner (though also involving basic documentation). He maintained the course had given him a more "conscious" knowledge of the English language but he was still employing various strategies to assist with report-writing, including using a tape-recorder for the recording of problems which he would write down at home. He saw his poor literacy skills as holding back his career development "its my responsibility I shouldn't be expecting anyone to do that, I should actually use my wages, pay for it and get the English higher and to move forward in life..." It is noticeable, therefore, that Abdul perceived a clearly defined limit to the degree to which he could improve his literacy skills through informal study. Substantial progess in this area depended ultimately on formal training.

In May 2007 a newly refurbished and developed learning centre, equipped with a specialized computer room was officially opened at Thorpton's refuse site. Micky Adams, a ULR who has played a particularly important role in the development of the courses, maintains that learning opportunities are now much more entrenched in the local authority. When he first sought to set up courses for front-line staff he encountered a degree of resistance on the part of some middle managers, citing the example of one manager who proclaimed "why do they need training....they know how to use a broom." He now feels that managers are considerably more supportive as a result of having seen the benefits of training in terms of increased confidence (manifested in individuals being "much more verbal" in meetings) and employees' increased capacity to deal with health and safety and other material. Micky has received national acclaim for his role in developing learning opportunities at Thorpton, winning a runner-up award for Public Servant of the year at the Guardian's Public Service Awards in 2006.

The "communications courses" are on-going for front-line staff and have now incorporated more health and safety and appraisal training alongside ICT. Penny Robinson, the learning manager cites "increased staff confidence" as the most important outcome of the courses. She maintains that "those who have done the course will speak up more" and are more likely to become involved in local steering groups. In her opinion, "if you give people confidence, everything else will improve..If you don't have that nothing else will happen". She also feels the courses have been successful in encouraging learners to embark on further learning. An important component of the success of the courses, in her opinion, has been the tutor who has worked with them since



the inception of the programmes and has been particularly effective in putting learners "at their ease".

Analysis of Thorpton Local Authority

Caretakers at Thorpton Local Authority have acquired job-specific skills and knowledge through a combination of formal and informal learning. The local authority formally allocates more experienced colleagues to guide recently appointed caretakers, but the mentoring process is largely unstructured and informal.

The increasing use of report-writing amongst care-takers has underlined the significance of literacy skills and has highlighted a skills deficiency in this area amongst some employees. With the exception of Abdul Nazif (described above) who made of point of practising his writing skills independently, most care-takers have employed various strategies which involve "getting by" rather than informal learning. In the specific area of literacy informal learning has not allowed for major skills gaps to be addressed. Reliance on supervisors to fill in forms, for example, does not provide opportunities for informal "mentoring and coaching" and therefore leaves unaddressed the underlying skills deficiencies. The courses have helped some employees improve their literacy skills and has facilitated progression within the workplace. Yet the most significant outcome, highlighted by learners, the tutor and manager alike, has been an increased confidence on the part of employees which has led to development of further formal learning opportunities (through willingness to embark on further learning) as well as informal learning opportunities (through the taking on of higher level roles that also entail "hands on" learning).

Interweaving of formal and informal learning: common themes and issues arising

Learning centres represent important sites for the inter-weaving of formal and informal learning opportunities. It is noticeable that in the cases here, popularity of the learning centres rests partly on their not being too closely associated with formalized learning. Facilities such as loan of laptops and accordance of space for informal self-directed learning on computers ("searching independently for information") are important examples of how the 'affordances' for learning can be enhanced.

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 the 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, with the centre is also open to the local community. In addition to computer and skills for life courses

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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 offered as part of a company strategy union negotiated) to upskill their existing workforce in order to to fill promoted positions (of eg team leader) internally.

One of the key findings of the wider 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. Care should be taken not to confuse strategies for 'getting by' at work with informal learning. Supervisors taking pre-emptive or 'circumventing' action over tasks involving literacy skills can create a vicious circle of employees' over-reliance on supervisors to fill in forms, for example, thus missing the opportunities for informal "mentoring and coaching" and reinforcing underlying skills deficiencies instead of helping to solve them.

There was evidence that, in the interplay between formal learning and informal learning, both external and internal motivation combine in highly context specific ways. The levelling out of management structures often leads to the expectation that employees should "take on more" and "show initiative".

The example of how this sometimes leads to greater scope for learning about new duties through "on the job" experience at work is the 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 fulfil their duties in the workplace (as appears to have occurred to several employees in this particular organisation. While increasing textualisation of the workplace is often cited as a motivator and stimulus to learning in the workplace, our cases also reveal another consequence, where employees with poor literacy and numeracy tend to be the ones who miss out on the formal training opportunites linked to textualisation, thus falling progressively further behind others in the workplace and becoming more vulnerable as a consequence. Finding ways to fill the gaps through more attention to informal learning is only a partial answer.

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, through, 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.



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/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 our 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, at least initially. The extent to which these were sustained over time and were translated into gains for the employer was much more mixed. 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 learning rich working environments and internal rewards and promotions strategies that support the engagement of the workers if they are to be successfully sustained.

Informal learning that results from "Mentoring or Coaching" as well as participating in "Focused Workplace Discussions" or committees 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 (see Billett 2006, Taylor et al 200?6) problematise simplistic versions of 'self-directed' learning and point to reconceptualisations that can embrace the interdependencies inherent in workplace practices.

The results of the research programme extend existing frameworks for understanding informal learning. One particular framework that has already been 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 and Evans et al have shown, the exercise of agency personalizes work by changing and shaping work practices, and. 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. Eraut's work has been conducted primarily with professionals in graduate occupations. A wider framework for understanding the organizational context is provided by Evans et al 2006, who argue on the basis of extended research with employees ranging from basic level workers to graduate apprentices in more than 40 organisations, that interventions need to address both employee and employer interests, recognizing that these often represent different rationalities and follow a different logic about what matters at work. 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—for example, 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 (See Evans et al 2006).

Furthermore, Evans et al (2007) develop this into a social ecology of learning. I 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 interactions. 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.

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 of the ways in which employees take engage in and shape everyday workplace learning.

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