

**From Dearden to Dearing:
Promoting Autonomy through
Work Based Learning in
Higher Education**

by

Albert Thomas Jameson

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ABSTRACT

From Dearden to Dearing: promoting autonomy through work based learning in higher education.

Who is more useful to society, the scientist, the engineer, the artist or the carer? This thesis is grounded in the belief that the four capacities they symbolise: knowing, doing, being and living together, are important to the creation of the citizen who is able to live a fulfilled life, while contributing to the economic and social needs of society. Accordingly this thesis investigates the claim that personal autonomy is a worthwhile aim for higher education; that it can be promoted through encouraging students to engage in experiential learning; and that a programme of work based learning for academic credit can be an appropriate vehicle for the necessary combination of experience and reflection.

Chapter 1 develops the central interpretation of autonomy through a conceptual review which takes as its starting points the work of R.F. Dearden. This in turn provides a framework for Chapter 2: an examination of the changing relationship between industry and higher education over the last century. Chapter 3 provides an overview of developments in work based learning since 1980, including the undergraduate programme of work based learning at University College Chester.

The Chester programme provided the material for the research. Information was collected from 61 students through observation, interviews, questionnaires and scrutiny of student portfolios. Analysis indicated that all the students had developed in some, if not all, of the four prerequisite capacities of autonomy, and that 48 of the 61 students had become more autonomous as a result of undertaking work based learning. Detailed evidence from 4 students in the pilot study and 23 students from the main study is presented in chapters 4, 5 and 6, leading to the conclusion that the most important element in promoting autonomy was the reflective portfolio based on agreed learning outcomes.

Chapter 7 discusses how and why the promotion of autonomy through work based learning relates to the 1997 Report of the National Committee of Inquiry into Higher Education chaired by Sir Ron Dearing. The thesis concludes with a model of work based learning designed to promote autonomy in higher education students, and reaffirms the belief that the end of education should be a society where every individual can be their own scientist, engineer, artist and carer.

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Declaration

This work is original and has not been submitted previously in support of any degree qualification or course.

Albert Thomas Jameson

A handwritten signature in black ink, appearing to read 'A.T. Jameson', with a long, sweeping underline.

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CONTENTS

Title Page		i
Abstract		ii
Acknowledgments		iii
Contents		iv
Epigraph		vi
✧	Opening the fountains and clearing the passage	1
✧✧	Seeing the parts	7
Chapter 1	Laying the foundations: learning and autonomy	12
Chapter 2	Building on the past: students and workers	34
Chapter 3	Students as workers - workers as students: models of work based learning	56
Chapter 4	Learning from experience	86
Chapter 5	The lessons of work based learning:	128
Chapter 6	Meeting the challenge:	179
Chapter 7	Shaping up to the present:	205
Chapter 8	Building for the future:	218
✧✧✧	Deducing the rivers	238

Appendix 1	Questionnaires used in the research	240
Appendix 2	University of Portsmouth Skills and Attainment Matrices	248
Appendix 3	University of Portsmouth Partnership Assessment Criteria	251
Appendix 4	Tabular analysis of student data discussed in Chapter Five	253
Appendix 5	Age and gender variables	255
Appendix 6	Tabular analysis of student data discussed in Chapter Six	260
Abbreviations used in the text		262
Bibliography		264



*God loves from Whole to Parts; but human soul
Must rise from Individual to the Whole.
Self-love but serves the virtuous mind to wake,
As the small pebble stirs the peaceful lake;
The centre move 'd, a circle strait succeeds,
Another still, and still another spreads;
Friend, parent, neighbour, first it will embrace,
His country next, and next all human race;
Wide and more wide, th'o'erflowings of the mind
Take ev'ry creature in, of ev'ry kind;
Earth smiles around, with boundless bounty blest,
And Heav'n beholds its image in his breast.*

ALEXANDER POPE (An Essay on Man, Epistle IV)



OPENING THE FOUNTAINS AND CLEARING THE PASSAGE

*Remembrance and Reflection how ally'd,
What thin partitions Sense from Thought divide
ALEXANDER POPE (An Essay on Man, Epistle I)*

My first day at secondary school. It is 10.30 and all the new boys are gathered in the hall for a reading test. They will stream us into classes according to how well we do. The book is passed from one boy to the next and finally arrives in my hands. I cannot make sense of the letters, so I use my imagination and continue the story so far. 'You - come out here' bellows Mr. Jones, 'why did you not read what is in the book?' Without waiting for a reply - there is no reply - he orders a passing prefect to bring his cane, and I hold out each hand in turn for two of the best. I shall never forget the look of uncertainty in his face as he administered the blows that first time, although it was a look I was to see often - each time I was rewarded for using my imagination and experience as a substitute for the written words on the page I was supposed to be reading. How could I tell him and all the class that I could not read? Dyslexia had not been invented and I was illiterate. Mr. Jones' education terminated when he retired at the end of my second year. My learning continued, both in school and out, but as the time came to leave school I was still unable to write my own name and barely able to read a word.

Through the intervention of my father, I was offered an engineering apprenticeship: it may have been a coincidence that the company director's daughter was dyslexic, but I was allowed to take the set interview tests orally, and gained the highest marks of that year's intake. My delight at outshining the grammar school boys was not charitable but it was genuine, and lasted until I got back to school, eager to report my success. There I was reminded that I could not read, my writing was illegible and 'I should not think

of trying to earn my living at anything remotely concerned with neat drafting'. Mr. Jones may have left, but Mr. Cook was still there. Fortunately for me, so was Mr. Jenner, my English teacher. Having entered teaching under the post-war re-training scheme, he recognised the value of the learning that comes from experience, and was pleased by my success. He also suggested I should attend night school, and arranged an interview with the Principal. Knowing that the Principal was also the Head of the Grammar School, I am not sure that I would have dared to keep the appointment if Mr. Jenner had not come with me, but I found that I enjoyed the adult negotiation that took place between the three of us, resulting in my receiving transcripts of all lesson notes - from which my father also learnt as he read them to me - and being allowed an amanuensis to read the examination questions and write down my answers.

I enjoyed night school far more than my daily work. In class, my knowledge, imagination, speaking and listening skills were recognised and praised. In the workplace I was still the lad who could not read, although this fortunately did not prevent me from acquiring an abundance of practical skills which have come in useful in divers situations throughout my life.

My next challenge came in the form of National Service. I was pleased to be accepted into the RAF on the strength of oral interviews, but disappointed that my trade was assigned on the strength of written tests. I rejected the cookhouse and the stores, and joined aircraft rescue, where I quickly became leader of the crash team. I missed my night school, and befriended the education officer at the base who was sympathetic to my disability, and encouraged me to take remedial maths and science classes for him: an undertaking which I enjoyed and realised I was good at. It was almost a different person who left the RAF two years later. I was independent; I had learned to take responsibility for myself and to be responsible to and for other people; I had learnt new skills, and found new ways of applying familiar ones; I could mix with Officers and aircraftsmen with equal ease - but it would be many years before I would dare to enter a library.

I re-entered civilian life in a junior draughtsman's post, and continued with my night school. By relating my evening studies to my day time job and vice versa I became a

proficient designer, and gained an HNC: my first academic qualification, which enabled me to return to the firm where I had served my apprenticeship as a senior designer. As time went on, I could not help noticing that those grammar school boys who had started out in apprenticeships with me were now settling into responsible posts in administration - but administrators have to write reports, so while I knew I could do the work with ease, I could never respond without hesitation to the perennial interview question 'do you think you could do this job if we offered it to you?', and I never got the job.

Once again I sought the challenge of academic study and enrolled for the Open University. Following my inclination rather than my vocation, I chose to study for a Human Sciences degree, which became the springboard for me to pursue my real vocation. At this time the Government were recruiting teacher trainees from industry and I applied and was accepted for a place provided I could obtain an 'O' level in English - so it was back to nightschool.

I passed the exam, and now, for the first time in my life, I was in a position to choose my own future. I could continue as a designer, and enjoy the security of a safe job, or I could start on a new career path where I could use the totality of my life experiences.

I chose the latter, and within six years I had qualified as a teacher and as a Registered General Nurse. During the week I taught in a special school for emotionally and behaviourally disturbed pupils, and at the weekend I took charge of the surgical ward in a large hospital. One of my patients at this time was Mr. Cook, and his appreciation of my nursing care finally erased the pain he had caused me by deriding my career prospects.

The pupils I was teaching had, like me, been rejected, but unlike me they had not had the support of family or mentor, and so had themselves rejected school and all it stood for. Our job, in the special school, was to bring these children to a condition, both academically and behaviourally, where they could be accepted back into mainstream schools. It took an incident with one of the pupils to show me that this was the wrong approach.

The children knew about my reading disability, but they also knew that I did not allow it to handicap me. I shared my love of literature with them, not through reading to them but by telling the story of the book - and accompanying the telling with a large illustration which I had painted myself. After one of these sessions, Mike went to his local library to ask for a copy of 'A Child's Christmas in Wales': he was not a member, was refused the loan, and ended up being ejected from the premises. When he told me this, I recalled my own first visit to a library. Summoning all my courage I had approached the librarian and asked a question. She looked at me, waved her hand towards a sign on the wall, and said 'can't you read?'. My reply as I made for the door was inaudible and unprintable, and it was many years before I entered a library again.

Mike's experience, which reflected my own so closely, made me realise that these children, like me, had a disability, and while in the short term it might be possible to teach them to conform just long enough to get them back into mainstream school, for the long term they needed coping strategies of their own, so they could survive in the world of schools and libraries. Our task was not to get the schools to accept the pupils, but to get the pupils to accept the school and all it stood for.

The first step was to help the children to accept themselves, and to realise that their own ideas could have validity. Only when they realised that I would always accept them - while not necessarily accepting their behaviour, could they be persuaded to choose for themselves a craft project to work on. I was determined that each child in my class would produce something worthwhile, which meant talking through their ideas to lead them towards a realistic project, helping them acquire the workshop skills they needed to execute it, and above all, having endless patience to demonstrate that I valued their work, and therefore valued them, even if they did not. I had to remake Mike's fishing tackle box seven times after he had destroyed it in frustration at the end of a lesson, but gradually he began to ask for help instead of struggling independently and failing to realise his ideas as he wanted. His expression of pride when he left for home with the finished article was worth every minute of the time I had spent rebuilding his box, and building his confidence.

Through these activities the children's confidence and self-esteem developed to the point where I felt able to take them to use the workshop facilities of a local Further Education College. The highlight of these visits was when I overheard one of my pupils explain politely to a college lecturer that he (the lecturer) could not really judge the piece of work in hand because he was not the one who had created it.

With the children engaged in making their own choice of objects, developing their practical skills but asking for help when they needed it, I was able to start teaching theory in a meaningful context. It was easy to explain why a particular material was not appropriate for a certain job, or why one technique was preferable to another when they could relate it quite literally to their work in hand.

The benefits of linking theory with practice, and the motivation to learn that came from having trust in their teacher and confidence in themselves, was demonstrated when I introduced a first aid course into their curriculum. The course was flexible enough to allow them to direct some of the content according to their interests, and because they were so involved a number of the children gained their first ever paper qualifications through practical and written assessment. It would be hard to say whether they or I were more delighted with their achievement.

On the strength of this success, my class had lessons in genetics and also learnt about the periodic table - and yet in other classes these same children were still failing to learn anything of the traditional school curriculum. I realised that if I was to help them, and their teachers it was not enough to say 'well this is what I did': I wanted to know why my approach seemed to work, and I realised that if there was an answer I could only find it by learning more myself. So once again I sought to become a student; this time to learn more about theories of education that I could relate to my practical experience in order to find a solution to my problem.

After enquiring at a number of Higher Education institutions about M.Ed. courses, with little success, I was eventually referred by Liverpool University to a tutor at Chester College who was running a course focusing on creativity. As my initial success

with the children had come about through their making things, this seemed an interesting area to investigate, and I arranged to visit her.

The visit turned out to be a formal interview for the last place on the course, for which the other two candidates were both headteachers. Having nothing to lose, and, I felt, little hope of a place, I explained my background and my interests and talked about my reading problem, and, to my astonishment, was offered the place. Once again, pride vied with self-doubt. My fifteen year old self had won out over the grammar school boys; but my forty something self was still unsure of my ability to justify the faith that had been shown in me.

With help and support from my tutor, and with a background of experience which helped me understand the theory, just as the theory was beginning to help me understand my experience, I gained my Masters degree. My interest and understanding of experiential learning, and of creativity and autonomy had been developed but not satisfied through my studies, and when my tutor offered me the opportunity of undertaking some research, into the development of autonomy in Higher Education students who were engaging in experiential learning as part of a new work based learning project at the college, it was a challenge I could not refuse.



SEEING THE PARTS

The proper study of Mankind is Man
ALEXANDER POPE (*An Essay on Man, Epistle II*)

The purpose of this thesis is to investigate the relationship between the experiences of students undertaking work based learning for academic credit as part of an undergraduate course, and the development of autonomy in those students.

My interest in this area was stimulated by an earlier project in which I considered the connection between the creative process and the development of self actualisation in disaffected children in a special school (Jameson, 1990). I began to consider whether the development of the capacities which the pupils needed in order to demonstrate their creativity was not in itself a worthwhile educational aim, and if so whether this aim had a wider application than in the education of school children with special needs. I felt that there was a close link between creativity and autonomy, but while creativity was predicated on autonomy, not all autonomous people would be creative. When I was subsequently offered the opportunity of undertaking research into work based learning in higher education, I focused my enquiry on the development of autonomy.

In Chapter 1 I consider what is meant by autonomy in an educational context, taking as my starting point the work of R.F. Dearden (1972, 1975) and through a review of literature I develop my argument that the promotion of a certain kind of autonomy is a worthwhile educational aim, and that the conditions for promoting it are not necessarily the same as those required for its expression. I also suggest that in order to recognise how autonomy may be developing in a particular situation it is useful to break it down into constituent parts, and I identify the prerequisite capacities which will become the focus for my subsequent investigation.

In Chapter 2 I examine the relationship between higher education and industry which underpins the practice of students spending a period of time in a work environment as part of their course, and how economic and social factors have, at different times, had a greater or lesser influence on the curriculum of higher education institutions in Britain by determining what qualities are required by industry in its graduate work force. I go on to discuss more recent patterns in work experience with reference to similar developments in the United States.

Chapter 3 focuses on current models of work based learning in higher education, and I discuss four main types, distinguished by the degree to which the student, institution, professional body or employer controls the content and methodology of the module. I identify the model used at University College Chester, Liverpool John Moores University and the University of Liverpool, as an appropriate one for further investigation in relation to the development of autonomy, and describe how the current programme evolved, its links with a similar programme in the United States, and the nature of the module being undertaken by the students who provide the data for my research.

The research method adopted is that of an extended case study, comprising a small pilot investigation followed by a similar study of a larger sample of students. The reasons for choosing this approach were twofold. In the first instance I was limited by practical considerations of time and money as the research was to be undertaken part time and without financial support. By focusing on the work based learning model in use at University College Chester I had the advantage of familiarity with the college and its staff and easy access both to the college and to the work placements of the students. University College Chester also included the development of autonomous learners as one of its aims for work based learning.

The second reason for my choice of methodology is paralleled by my choice of epigraphs from Pope's *Essay on Man*. Belief in the value of autonomy presumes a model of man as one who is 'positive, active and purposive' (Cohen and Manion, 1987, p.28) which is the model adopted by the humanistic psychologist, whose interest is 'directed at the intentional and creative aspects of the human being' (Cohen and

Manion, 1987, p.28). Adherents of this anthropomorphic model suggest that ‘we must use ourselves as a key to our understanding of others and conversely, our understanding of others as a way of finding out about ourselves’ (Cohen and Manion, 1987, p.29). In view of the genesis of my study this model seems particularly appropriate.

Research undertaken on the basis of this model must be interpretive, since, ‘the central endeavour in the context of [the] interpretive paradigm is to understand the subjective world of human activity ... the interpretive researcher begins with the individual and understanding his interpretations’ (Cohen and Manion, 1987, p. 40). The value and validity of subjectivity is an undercurrent to my work, and I make no apologies for basing my analysis on the evidence provided by the students’ own interpretations of their experiences during work based learning, though I recognise the limitations it entails.

By following a case study approach I have been able to investigate in depth these interpretations from a group of students to see whether they provide any evidence about the potential of work based learning as a vehicle for promoting autonomy. The scale of my research and its subjective and interpretive nature precludes the adoption of a survey approach with probabilistic sampling, and it should be noted that where I have, in the course of my analysis, introduced a scoring system, this may be viewed as a sort of shorthand for my subjective analysis, which is more qualitative than quantitative.

Although, given that each pairing of student and placement is unique, it could be argued that my findings are based on 61 cases, the evidence I have used relates to two separate groups of students who undertook a work based learning module, of either four weeks or eight weeks duration, as part of their undergraduate course at University College Chester during 1994 and 1995. The evidence which I gathered about their experience came from a number of sources: personal interviews; questionnaires distributed to students, tutors and employers (Appendix 1); observation and interviews with students and employers in the workplace; observation of presentation assessments, and the students’ portfolios.

The first group of students was treated as a pilot study, to establish the most effective methods of collecting evidence, and also to see whether there was any relationship between work based learning and the development of the capacities of autonomy which would justify a further study. Of the 25 students in this first group 15 agreed to take part in my study, but I found that the constraints of part time research allowed me to gather a full range of evidence from only 4 students, who were selected from the 15 because they had different prior experience and expectations from their placements. The analysis of evidence gathered from these four students appears in Chapter 4.

I found from this pilot study that there was sufficient evidence of the development of autonomy to justify a larger study, and I was able to refine my data collection strategies, for example by omitting a mid-placement questionnaire and recognising the importance of the students' portfolios. In keeping with the interpretive paradigm in which 'theory is emergent [and] should be "grounded" on data generated by the research act' (Cohen and Manion, 1987, p. 40), the pilot study suggested that the presence of a challenge was in each case a factor in the promotion of autonomy, and this became an issue in my main study.

Chapter 5 details my analysis of a selection of students from the 57 who provided the body of my evidence. 105 students undertook the work based learning module in 1995, but again I was constrained by time and the availability of evidence; some students had placements abroad, and others did not respond to my questionnaires. Although the sample I studied was thus self-selected, the variety of backgrounds and experiences represented suggests that the sample may be as valid as a scientifically selected random sample would have been, had that been possible to obtain. The evidence from all 57 was analysed and recorded in the same way, and a tabular summary of this analysis appears in the appendix to the chapter. The students who are reported in detail were selected as representing those who had provided evidence of development in all the capacities of autonomy, and those who appeared to have developed the least.

In Chapter 6 I re-examine the same evidence, but from the perspective of the factors of the work based learning module which contributed to the students' development.

Again, my analysis is based on the evidence from all 57 students, but examples are taken only from those detailed in chapter 5, whose background will therefore be familiar.

Chapter 7 brings the theoretical framework for my study up to date. I demonstrate how both autonomy and work based learning have become areas of concern to higher education institutions, and referring to the report of the National Committee of Inquiry into Higher Education, chaired by Sir Ron Dearing, I suggest how the evidence from my study relates to the recommendations in this report.

In the final chapter I give a brief overview of my research, and go on to outline a model for a work based learning programme that, on the evidence of my work, might be expected to maximise the potential of work based learning for developing autonomy in higher education students. I conclude by restating my belief in the value of autonomy as an educational aim: a belief which has fuelled my efforts in this research project.

1



LAYING THE FOUNDATIONS: LEARNING AND AUTONOMY

*Self love, the spring of motion, acts the soul;
Reason's comparing balance rules the whole.
Man, but for that, no action could attend,
And, but for this, were active to no end.
ALEXANDER POPE (An Essay on Man, Epistle II)*

As a result of my lifelong learning experiences I believe that I am both autonomous and creative. I can see how I have developed these capacities, and consequently become a more effective adult. However, to turn self-knowledge into a rational basis for studying the development of autonomy in others, it is necessary to step back and take a more objective look at the concept.

Although personal autonomy has been the subject of philosophical debate since the earliest times, my approach is more pragmatic than philosophical. Rather than considering autonomy as a property of persons, a view which can give rise to abstruse debate between compatibilists and incompatibilists, internalists and externalists (see Mele, 1995), I prefer to regard it as a 'capacity'. If autonomy is viewed as a property, a person must either have it, or not have it. If it is seen as a capacity, then it is reasonable to suggest that it can be developed, or exercised in part if not in full, a view endorsed by Dickinson (1995) who asserts that 'the understanding of autonomy as a capacity or attitude rather than as overt action ... is important' (Dickinson, 1995, p.167). My interest in autonomy grew out of studying the 'capacity' of creativity, when my investigations into creativity led me to conclude that a creative person must be autonomous, although an autonomous person is not necessarily creative. At that point it was clear that I must refine my notion of autonomy in order to rationalise a statement

that I only felt to be true. To explain how I came to the understanding of autonomy which underpins this research it is necessary, therefore, to start with creativity.

In fact, creativity is not itself the beginning, because it is founded in the imagination. During the early stages of human development we begin to lay down images, or 'schemas'¹, which are the building blocks of creative potential. As Eisner (1985) puts it, 'images are the bedrock upon which we build our theoretical palaces' (Eisner, 1985, p.355): they are what the young child uses quite literally to shape her/his concepts, and later to manipulate more abstract ideas. They also form the basis of communication, allowing us to share meanings in language, which may be literal or figurative (Azar, 1995).

For the young child the immediate environment provides a rich learning experience. As s/he becomes aware of her/himself, and curious about her/his surroundings, s/he begins to accumulate a range of schemas which s/he then uses to manipulate the environment in an experimental way. Provided these experiments receive positive reinforcement, the child's confidence grows and s/he will take more risks, refine existing schemas and develop new ones, which will in turn be tested in the real world. The process is evident in the way children often learn something new, and then over-extend the idea, until it is refined through further experience. A dog has four legs, therefore all creatures with four legs are dogs - until we learn that if the dog miaows it is probably a cat.

This learning through experience proceeds at a rapid rate in early childhood, when adults respond positively to every demonstration of learning, and the child's confidence, curiosity and creativity grow. For most children this happy state does not last: creativity is obliged to give way to conformity, when the outward expression of new ideas becomes 'showing off', and the child's desire to learn what s/he wants to learn, characterised by the five year old who begins every sentence with 'why?', is submerged by the learning of what others want to teach. As the child moves through school, subjectivity is suppressed and objectivity is encouraged (Witkin, 1974; Ross,

¹ The term 'schema' is frequently attributed to Piaget but was originally coined by Kant to describe something which the imagination creates for itself, and which it then applies to experience in order to make it intelligible: the schema is then reshaped in the light of the new experience. (see Warnock, 1976, p.31)

1978). The child's expression of her/his own thoughts ideas and feelings is seen as less important than the ability to understand, reproduce and synthesise the thoughts and ideas of others. As s/he moves into adolescence, the pressures to conform, at home, at school and with her/his peers increase, and self-esteem, self-confidence and creative self-expression diminish. As Witkin observes,

the expression of feeling does not thrive on objectivity. It thrives on a controlled subjectivity and if the consequence of discovering the subjective feeling states of others is the sacrifice of one's own subjectivity then the step has truly been a retrograde one and from the point of view of self as well as of self-expression it might be argued that the pupil is better off with the naive egocentrism of childhood. (Witkin, 1974, p.59)

Witkin's idea of 'controlled subjectivity' is important to me, because, like him, I believe that what distinguishes creativity from self-expression is that the creative person is able to conform to the rules and laws inherent in the medium of expression. Witkin cites the example of a person who reacts to a subjective impulse by kicking in a window pane (Witkin, 1974, p.33). This is clearly a case of self-expression, and may even be an act of conformity, if such is the habitual behaviour of the peer group, but it cannot be called a creative act. It is, in Witkin's term, 'subject-reactive' behaviour (Witkin, 1974, p.33), enacted without the original impulse having been assimilated or reflected upon.

In another person, or in the same person at another time, the same angry impulse may result in a creative act. S/he may take up an instrument and compose an angry tune, or take pen and paper and draw an angry picture. This is 'subject-reflexive' behaviour, when the individual chooses a medium to express a subjective impulse which 'reciprocates his impulse in the sense of being that which recalls it' (Witkin, 1974, p.33). The resulting composition will only recall the sense of anger if the person conforms to the rules and laws of the chosen medium: choosing to introduce discords into her/his musical composition, for example, or using bold lines and strong colours in her/his art work.

Ross (1978) makes an almost identical point when he distinguishes between 'expression that gives form to feeling and reflects the feeling back - and expression that

merely releases the impulse, giving vent to feeling so that it is lost' (Ross ,1978, p.41). In order to expend the time and energy that is required for subject reflexive behaviour, we must both believe in the validity of the 'feeling impulse' that gives rise to it, and have confidence in our own skill in using a chosen medium of expression. A person lacking in self-esteem may doubt that s/he has any right to feel angry, and therefore want to lose the impulse, or even if s/he is convinced of the validity of the feeling, s/he may lack the confidence or skill to try to express it through creative behaviour.

The importance of self-esteem for creativity - and for education - is evident in the definition of self-esteem offered by Branden (1997):

It is confidence in the efficacy of our mind, in our ability to think. By extension it is confidence in our ability to learn, make appropriate choices and decisions, and manage change. It is also the experience that success, achievement, fulfillment - happiness - are appropriate to us' (Branden 1997, p.1)

Solomon (1985) reinforces the link between self-esteem and creativity when he refers to creativity as a form of 'normal narcissism' which he defines as 'mature, positive self-esteem, self-confidence, self-feeling or self regard' (Solomon, 1985, p.48) and a similar idea is expressed by Buckmaster and Davis (1985) in their work on self-actualisation and creativity. They assert that 'the self-actualised person is also a creative person' (Buckmaster and Davis,1985, p.30): being, in their view, a person who is mentally healthy and 'fully functional' (Buckmaster and Davis,1985, p.30).

This reference to a 'fully functional' person, brings us into the area of cognitive development, because in order to be 'fully functional' we must be able to reflect on our feeling impulses, and also have the skills and knowledge required to express them in a considered form. As Dacey (1989) points out, 'the creative act often starts with a spontaneous spark, followed by careful reflection on the implications of the idea'(Dacey,1989, p.13).

Discussions of the cognitive aspect of creativity often focus on the distinction between convergent and divergent thinking (Guilford, 1950 and 1959; Arieti, 1976; Runco, 1990), but conclude that creative thinking is something different from either of these,

because it involves problem finding as well as problem solving. According to Arieti (1976) 'divergent thinking is not free ... because it aims at a solution. Original thought is a broader category that includes both divergent and completely spontaneous thinking' (Arieti, 1976, p.9). Runco introduces a theory of 'ideational fluency' in his discussion of problem finding (Runco, 1990, p.240), which refers to the number of original ideas produced by an individual, which need not necessarily be divergent.

Runco (1990 and 1997) also makes a useful distinction between creative potential and creative activity, which relates back to the problem of the adolescent who vents her/his anger in reactive self-expression, because s/he may not have the skills and knowledge to give creative expression to the emotion. He allows that 'most expressions of creativity probably do require knowledge, and ergo, intelligence' (Runco, 1990, p.241) but also recognises that 'a student's creative *potential* cannot be inferred from his or her grades, IQ, verbal ability, or academic performance' (Runco, 1997, p.1, emphasis added). This distinction is significant in so far as it points to the importance of autonomy for creative expression.

Runco also discusses the role of motivation (1997) and evaluation (1990) in creativity, and again the notion of autonomy is implicit in the emphasis he puts on the importance of intrinsic motivation and of self-evaluation. He also suggests (1997) that there are strategies which can be adopted (and others which must be avoided) by teachers in order to encourage the development of creative potential and creative expression in students: a suggestion that is endorsed by my own experience. In this short essay Runco focuses on the precise issue which first aroused my interest in creativity. The essay is titled Creativity as an educational objective for disadvantaged students, and in his recommendations (Runco, 1997, p.2) he lists many of the strategies that I used to develop the creative potential of my own disadvantaged pupils. The key recommendation is to 'recognize the multifaceted nature of creativity'; which Runco defines as requiring 'divergent and convergent thinking, problem finding and problem solving, self-expression, intrinsic motivation, a questioning attitude, and self-confidence' (Runco, 1997, p.2).

If one accepts Runco's prerequisites for creativity, which I do, then it is not surprising that the experience of being an adolescent attending secondary school is rarely conducive to creative expression. I would suggest that the characteristics in Runco's list could provide an adequate definition of an autonomous person, which is how I came to the conclusion that a creative person must also be an autonomous person. I also concluded that neither creativity nor autonomy are given sufficient attention in secondary schools. While I would not go quite as far as Holt (1975) who describes schools as

amongst the most anti-democratic, most authoritarian, most destructive and most dangerous institutions of modern society. No other institution does more harm or more lasting harm to more people or destroys so much of their curiosity, independence, trust, dignity and sense of identity and worth. (Holt, 1975 p.188)

I believe that many children do lose their capacity for creative and autonomous expression during their teenage years, and that much more could be done by schools and post school educational institutions to help students develop their potential in these areas. But again, in order to rationalise my personal beliefs it is necessary to consider the arguments of some of those philosophers and educationists who have in recent years engaged in debate about autonomy as an educational aim.

A useful starting point for this discussion is the work of R.F. Dearden (1972, 1975) firstly because many commentators since Dearden make reference to his ideas (Allen, 1982; Crittenden, 1978; Stone, 1990), and secondly because he introduces two specific ideas which are particularly relevant to my own arguments: he makes a clear distinction between autonomy and independence, and he highlights the fact that the best conditions for exercising autonomy are not necessarily the same as the best conditions for developing it.

Dearden (1972) develops the idea of autonomy through the related concepts of 'freedom' and 'independence'. He maintains that freedom alone is an insufficient condition for autonomy, since 'ascriptions of freedom and unfreedom are made against a background context' (Dearden, 1972, p.451), an argument that is developed in detail by Mele (1995). Although Dearden allows that some kinds of freedom may be

necessary for the exercise of autonomy, he points out that autonomy may develop in conditions of relatively little freedom, since 'to become autonomous is not just a purely maturational process ... It is in part at least a learning task' (Dearden 1972, p.464).

In his discussion of autonomy and independence, Dearden argues that, as with freedom, some kind of independence from external constraints may be necessary for the exercise of autonomy, but his main point is that the kind of independence which is central to the concept of autonomy is independence of mind:

A person is autonomous ... to the degree that what he thinks and does in important areas of his life cannot be explained without reference to his own activity of mind. (Dearden, 1972, p.454)

He describes 'activity of mind' as 'choices, deliberations, decisions, reflections, judgements, plannings or reasonings' (Dearden, 1972, p.453). The value judgements underlying the assumption that 'important' matters require the exercise of these particular 'masculine competencies' have been taken up in some detail by Stone (1990) and will be returned to.

As the notion of 'independence' is central to any discussion of autonomy, it may be useful here to make clear my own view of the essential difference between autonomy and independence. Although the two terms are often used synonymously, not least in the Complete Oxford English Dictionary (Murray, 1989) and the Penguin Dictionary of Psychology (Reber, 1985), there is a fundamental distinction, which is that independence is external and autonomy is internal: except, of course, for independence of mind which, brainwashing aside, must by definition be internal. The corollary of being independent is that one is independent of or from something else: usually some kind of environmental or social influence or control. Independence can be offered or withheld, accepted or rejected, enforced or seized. Autonomy, in any sense other than the political, cannot be acted upon in any of these ways. It is a debatable point whether or not autonomy can be voluntarily relinquished (see Mele, 1995) but it certainly cannot be offered or conferred, simply because it is an internal capacity which can exist alongside external constraints. A prisoner in a cell can be autonomous, though s/he is neither free nor independent: s/he may be unable to give outward expression to her/his autonomy but the capacity for it, the 'independent-mindedness' cannot be subjected to

external constraints - other than the sort of physical or psychological interventions involved in 'brainwashing'.

Independent-mindedness in Dearden's sense should not carry the connotations of stubbornness with which the phrase is associated in common parlance, because stubbornness connotes irrationality, and for Dearden autonomy is predicated on rationality. It is, he says, 'intimately connected with the notion of reason, even if not with actual truth or morality' (Dearden, 1972. p.456). He distinguishes between 'actual truth' and 'true beliefs', maintaining that true beliefs are necessary for autonomy, although actual truths may not be, because it is only true beliefs about our motives which are controllable: the more fully we know ourselves, the more able we are to bring our thoughts and actions under conscious control. With self knowledge true beliefs about oneself are actual truths, even if our beliefs about the external world are not. Autonomous behaviour results from reasoned consideration of our true beliefs about ourselves, and self-knowledge is therefore another necessary, though insufficient condition of autonomy.

Dearden recognises that if we are to act on the basis of reason, there must be some criteria which determine what reasons we will act upon, and that these criteria will be culturally determined, since

by the time we reach a level of reflectiveness at which the scrutiny of criteria makes much sense, we are already very substantially influenced by the culture in which we have been brought up. (Dearden, 1972, p.457)

He does not, however, develop any arguments about what constitute valid criteria for rational choice, as for him it is the reasoning itself, rather than the choice of criteria which is central to autonomy. Nevertheless, other commentators on autonomy (Telfer, 1975; Aviram, 1986; Stone, 1990) suggest that the issue of criteria is important because human beings are not wholly rational beings: they have wants and needs, feelings and emotions, which can also have validity as a basis for autonomous behaviour.

Telfer (1975) agrees with Dearden (1972) about the importance of self-knowledge and critical reflection for autonomy, but by focusing on the process of choice, Telfer

demonstrates that factors other than pure reason have a part to play in the autonomous person's activity of mind. She divides the process into three stages. In the first stage we define our wants and opinions, by asking questions such as 'What do I really want?', 'What do I really believe'? (Telfer, 1975, p.21). In doing this we are acknowledging actual wants and opinions, as distinct from unwanted factors such as self-deception or the forces of convention. In the second stage we apply critical reflection to our actual wants and opinions, and decide which should become the basis for action or thought. Lastly, we formulate and act upon purposes and decisions on the basis of those wants and opinions that survived the critical reflection of stage two.

Stone (1990) argues even more strongly than Telfer for the inclusion of wants and opinions, feelings and emotion, in the notion of autonomy, and does so by addressing directly what she sees as the inadequacies in Dearden's consideration of the meaning and value of autonomy. She suggests that Dearden (1972) sees 'feelings, emotions, wants and desires ... only as factors ("internal pressures") which may militate against autonomy' (Stone, 1990, p.273), whereas she believes that they are crucial to autonomous thought and action. She maintains that a person who acts without considering feelings and wants, or who always controls them, 'would not be recognisable as a human being at all, and would have no motivation for action' (Stone, 1990, p.273). She extrapolates from Telfer's (1975) three stage model to argue that feeling and emotions (which she identifies with Telfer's 'wants') can be integral to autonomy when they have undergone critical analysis and survived the reflective process. (Stone, 1990, p.275)

Stone (1990) suggests that the question of criteria, which Dearden (1972) avoids, is critical to any understanding of the meaning and value of autonomy, and considers what criteria may be used in the critical reflective process that will allow the process to be considered autonomous. She maintains that there are some kinds of wants and desires that cannot be a basis for autonomous action, even if they have survived critical reflection, because the wants and desires themselves are predicated on a lack of autonomy, and she cites as examples smoking, pleasing others, and loving. If it is the case that to be autonomous we either must not have, or must not act upon certain kinds of wants and desires, then autonomy becomes subject to value judgements, and

as Stone recognises 'we immediately enter an area of controversy: after all, one person's self-destruction may be another person's path to enlightenment' (Stone, 1990, p.277).

While I agree with Stone's central argument that wants and desires have a part to play in autonomy, I do not believe that the question of whether or not a person is autonomous can be a value judgement. Stone herself provides no solution to the difficulty she raises, but I would suggest that a possible answer lies in the distinction I made earlier between autonomy and independence. If we choose, after considered reflection, to smoke, knowing that it is self-destructive, or choose to put the needs and feelings of a loved one before our own, we are not lacking in, or giving up autonomy: we have made an autonomous choice and are acting upon it. If by so doing we appear to have become dependent on someone or something outside ourselves, it is not autonomy that has been relinquished, but independence. I would argue that a person who is able to relinquish independence may not only remain autonomous, but may in some circumstances be more effective as an autonomous agent for having done so.

To describe autonomous behaviour (as distinct from the capacity for autonomy) as more or less effective brings us back to the realm of value judgements, and also back to Stone's critique of Dearden. Stone (1990, pp.278, 279) maintains that unless criteria are specified, the whole notion of autonomy is incomplete, and argues that Dearden's model of autonomy ignores the question of values altogether, because for him, the only relevant criteria are 'truth criteria' (Dearden, 1972, p.456). She accepts that this may be appropriate for autonomy which is based solely on reason, but if emotions and wants are to be considered, some other measure of appropriate criteria must be found.

Stone is not alone in questioning the acceptability of Dearden's view of autonomy. She herself quotes Aviram (1986) who, referring specifically to Dearden's model, asks whether we would

really like to call 'autonomous' any human being who merely follows the procedural laws of reason, without any regard for the origin and nature of the basic values which guide his actions' (Aviram, 1986, p.190),

and Dunlop (1984) makes a very similar point, though in his case without reference to Dearden.

If we were asked to describe the sort of person we would be most frightened of, we might well think of a man whose intellectual powers were outstanding and properly trained but who had no heart and no feelings. (Dunlop, 1984, p. 1)

In questioning the value of autonomy which is based solely on reason, Stone points out that the values which underlie this model are the essentially 'masculine' ones of individualism, reasoning, reflectiveness, emotional control, and detachment. (Stone, 1990, p.279). A more acceptable model of autonomy for her must also encompass more 'feminine' capacities, such as co-operativeness, trust and collective working, emotional vitality, expressiveness and sensitivity. In using these terms, Stone is aware of current sensitivities regarding gender-stereotyping and points out both in the text and in a footnote (Stone, 1990, p.282) that she is using 'masculine' and 'feminine' in the stereotypical sense, which should not be confused with the reality of male and female capacities and propensities.

Broadening her criticism of Dearden's autonomous man, who is able rationally to control his life, Stone argues that such a degree of control may result in the loss of equally valuable parts of the self, since 'reflection and control are potentially in conflict with emotional vitality and spontaneity, both of which are elements in human well-being' (Stone, 1990, p.280) and she goes on to observe that without 'impulses and emotions', creativity may be lost. She also believes that sometimes, and at some stages in one's life, it may be desirable not to be independent of values and of people, as interdependence and collectivity are themselves of value (Stone, 1990, p.280).

While I agree with Stone's view of the importance of 'feminine' capacities, of spontaneity and emotional vitality and of interdependence and collectivity, I do not agree with her conclusion, which in fact reflects Dearden's: that emotions and autonomy are incompatible (Stone, 1990, p.281) She suggests that we should be reaching for a new ideal, based on a richer understanding of human potential and the nature of human needs and well-being, which is something different from autonomy (Stone, 1990, p.281). Perhaps because I started from a consideration of creativity, my model of autonomy not only can encompass wants and needs, emotions and feelings

alongside rationality and reflection, but actually requires them: a view which is endorsed by Dunlop (1984) and Crittenden (1978).

Dunlop (1984) does not deal in detail with the concept of autonomy, although a section of his book is headed 'Encouraging emotional autonomy' (Dunlop, 1984, p. 108), which indicates that for him there is no problem of incompatibility. He echoes Witkin (1974) when he suggests that we should encourage the young not to give way to each and every impulse and feeling, nor to disregard them completely. He advocates an acceptance of self, an 'inwardness', which would enable a person to use his feelings and emotions as a 'coherent basis for judgement and will' (Dunlop, 1984, p. 109).

Crittenden's (1978) observations are particularly relevant to my discussion because his concern with autonomy is focused specifically on its validity as an educational aim. He identifies three overlapping aspects of the ideal; intellectual, moral and emotional, and suggests that it is possible to be autonomous in any one of these aspects without necessarily being autonomous in others. This accords with my own ideas, in that it implies a developmental model, which allows for degrees of autonomy: the fully autonomous person being one who is autonomous in all aspects. However, because of the way he interprets the model, Crittenden's autonomous man is one of whom Aviram and Dunlop might well be afraid.

According to Crittenden (1978) if we are intellectually autonomous we will not accept any of our important beliefs, whether about the nature of the universe or about personal standards of conduct, primarily on the authority of others, but on our own experience, our own reflection on evidence and argument, and our own sense of what is true and right. He considers that moral autonomy is closely linked with the intellectual aspect, but relating more to practical judgement and actions. He sees it as an 'executive capacity', which involves putting into practice whatever we have decided should be done, and suggests that it might best be expressed by the term 'self-mastery' (Crittenden, 1978, p. 108), but he considers that a truly morally autonomous person could not and would not obey a command (Crittenden, 1978, p. 107). Similarly, he argues, in order to achieve emotional autonomy we would not only have to

demonstrate self-mastery over strongly felt emotion, but also consistent emotional detachment in regard to people and things.

In fact, Crittenden interprets autonomy in these absolute terms in order to make his point that,

to speak in terms of autonomy versus heteronomy is ... to draw the line of distinction too sharply. The question is not whether we accept the public forms of reasoned enquiry, moral practice, artistic expression, or the authority and judgement of others, or deeply felt commitments, but how we accept them. The fundamental distinction is between a blind, unreflective, mechanical acceptance and one that is informed, critical, discriminatory, adaptive. If the latter ... is to be described as intellectual autonomy, there is no difficulty in counting autonomy as an aim of liberal education. However it must be recognised that this is a substantially different concept of autonomy from the one that is related to anarchistic epistemology and widely invoked in contemporary educational theory. (Crittenden, 1978, p.123)

Allen (1982) is even more vehement in his rejection of anarchistic epistemology² than Crittenden, and leaves no room for a different concept of autonomy than the one which he rejects. He maintains that Dearden's interpretation of autonomy is too exclusively intellectual, and would propel us towards an unachievable state of total and radical freedom, which would result in the destruction of freedom. If the aim of education is to be 'self-formation by rational deliberation and critical choice' (Allen, 1982, p.202) pupils will come to resent and oppose whatever has not been chosen by themselves, and the result will be anarchy because 'the desire for absolute freedom ... is totally destructive' (Allen, 1982, p.202). Allen acknowledges that absolute freedom in this sense is unlikely to be advocated by anybody as an educational aim, and therefore he suggests that the kind of autonomy which is seen as educationally desirable is something else, which he calls 'irrational autonomy' (Allen, 1982, p.202). In this conception, pupils are to be taught the traditions, forms of knowledge and rules of morality which underlie western liberal education, and only in those areas where there is no tradition of knowledge or beliefs is the pupil to be allowed autonomy. As Allen

² 'Anarchistic epistemology' describes a theory of knowledge which is opposed to rationalism. As outlined by Feyerabend (1975) it argues that intellectual progress can only be achieved by stressing the creativity and wishes of the scientist rather than the method and authority in science, and maintains that 'the only principle which does not inhibit progress is *anything goes*'. (p.23)

puts it, 'it is where reason ends and where indoctrination would begin that autonomy is to take over' (Allen, 1982, p.203), and he dismisses the idea of irrational autonomy as an attempt to 'prescribe a form without content' (Allen, 1982, p.203). He then returns to his argument against rational autonomy, maintaining that it cannot be applied in the learning of rules and methods because such learning demands an 'apprenticeship' approach, with unspoken rules being 'tacitly acquired by the acritical imitation of an accredited master of the art' (Allen, 1982, p.203). The exercise of rational autonomy in such a situation would cause the apprentice to make his own judgements and critically assess his master, and thus undermine the received wisdom of generations.

Regardless of whether we consider such received wisdom to be as sacrosanct as Allen would have it, his entire argument seems to be based on the premise that the conditions necessary for the development of autonomy are the same as those required for its exercise. My own experience tells me that this is not the case: it is only by adopting an apprenticeship position, and voluntarily relinquishing some independence to a trusted mentor that we can learn the skills and knowledge, and rehearse them sufficiently to develop the confidence that we need in order to be effective autonomous agents. As Ho and Crookall (1995) conclude in their essay on the use of simulation to develop learner autonomy, 'autonomy cannot be conferred by a teacher Taking responsibility can only be encouraged ... by learner participation in a personally-meaningful, real world context' (Ho and Crookall, 1995, p.242).

The position that Allen (1982) adopts with regard to autonomy and education perhaps represents more clearly than any other commentator's the complete antithesis of my own view. I believe that autonomy as I interpret it not only can, but also should, be the aim of lifelong education. As Kenny (1993) puts it,

Education is about empowerment and what it empowers is people's autonomy. This allows them opportunities to generate knowledge as opposed to being passive consumers of it. What learners must do is initiate, plan, organize and carry out work of their own. This is autonomy in practice and can lead to the challenge of innate belief systems and assumptions. This in turn begins to unblock people's capacities for independent and interdependent thought and action. (Kenny, 1993, p.431)

Although Kenny's definition of 'autonomy in practice' is somewhat superficial in the context of the foregoing discussion, his central point about the relationship between autonomy and education is one I endorse.

I remain of the opinion that autonomy and creativity are closely related: that both are capacities which are inherent in us all, and which, in the right circumstances, will develop to a mature condition where they can be given effective outward expression, in learning and in life. I also believe that it is possible to create circumstances which can encourage their development. However, given the variety of interpretations which can be placed on the word 'autonomy'; only some of which have been outlined here, it may not be helpful to talk about the development of autonomy in the abstract, or even, given the range of possible contexts, to focus on definitions of autonomy in practice. An alternative approach, which I prefer, is to consider the range of attributes which we must possess if we are to act as effective autonomous agents. By breaking down the concept in this way, it is also possible to understand how there can be degrees of autonomy, when some of the attributes are more or less fully formed than others.

The attributes that I consider to be necessary in an autonomous person are:

- responsibility
- self-actualisation
- motivational independence
- instrumental independence
- metacognition

Responsibility

A person who could not take responsibility for her/himself could hardly be called autonomous, but to talk of autonomy and ignore the social context in which autonomy is to be exercised is to engage in intellectual debate which may be interesting but has little relevance for practical educators. Western society is predicated on institutionalised power structures: the family, the school, the university and the workplace each has its own pattern of control, and each in turn is subject to a greater or lesser extent to its wider political context. As Allen argues, if we were to operate

without regard to any of the constraints of this social context, the result would be anarchy (Allen, 1984, p.202).

The notion of self-regulation implies not only acting according to our own rules, but also maintaining some sort of order, and because our culture tends to emphasise responsibility for self, a concomitant responsibility to others is necessary if we are to achieve self respect and the respect of others and maintain order in both our immediate and our wider social context. As Chickering (1969) puts it in his discussion of mature autonomy,

the individual must accept interdependence, recognising that one cannot receive benefits from a social structure without contributing to it, that personal rights have a corollary of social responsibility. (quoted in Boud, 1988, p.29)

An autonomous person must, therefore, demonstrate responsibility to self and to others.

Self actualisation

Self actualisation not only embraces the related concepts of self-knowledge, self-confidence and self-esteem, but also connotes the fulfilment that comes from the possession of these qualities and I would suggest that it is absolutely central to autonomy. Without self-knowledge, we can only be dependent on others; we cannot make meaningful choices and we can only react to, not interact with, our social context. If we are not properly aware of our own thoughts, feelings, wants and needs, we cannot be autonomous.

While self-knowledge is necessary, it is not sufficient for the proper exercise of autonomy because it is of little value to know oneself and yet consider that self worthless or inadequate. We will not act upon our own ideas if we think someone else's are always better: and if we act upon our impulses, without acknowledging their validity, our actions will at best be uncertain, and at worst be destructive. Mature self-esteem is based on realistic self-knowledge, which recognises weaknesses as well as strengths and autonomy requires both.

Self-confidence is the capacity which, in conjunction with self-knowledge and self-esteem, enables us to achieve self-actualisation through the exercise of autonomy. It allows us to give outward expression to our internal view of self, but it can only be considered a characteristic of autonomy where it is based on mature self-knowledge. Self-confidence can easily be confused by the observer with arrogance or bravado, but these are predicated on lack of self-esteem, and are not compatible with either self-actualisation or autonomy.

Motivational independence

Motivational independence refers to the sense of purpose that derives from self-esteem and contributes to self-actualisation. If we feel that our ideas and intentions are worthwhile we will want to act on them: not to do so would result in frustration, which is the antithesis of self-actualisation, but if we lack self-esteem nothing we choose to do will be rewarding. Because we have no confidence in the validity of our own choices, we may prefer to do nothing, or let others dictate our actions: we will not be autonomous. That is not to say that if we are autonomous we cannot act at someone else's behest, but if we do, it must be because we recognise that by so doing we are serving a purpose of our own. A pupil who performs a task set by a teacher because s/he actually wants to learn something, and believes that the task will help, is acting autonomously.

Instrumental independence

Just as motivational independence is based on self-esteem, and can accommodate encouragement or directions from others without loss of autonomy, so instrumental independence is grounded in self-knowledge, and can encompass utilisation of the skills and knowledge of others. An autonomous person is one who can both problem-find and problem solve, but it is impossible for one individual to possess all the skills, knowledge and technical expertise to implement the solutions to problems in all areas of life. No-one in the modern technological world, can have total instrumental independence.

However, in the same way that I consider the capacity for creativity to be essentially cognitive and see the production of an artefact as an added extra, so I would suggest

that the ability to problem find and problem solve is central to autonomy, whereas the ability to implement the solution oneself is not. Instrumental independence in these terms can be seen as having mobility of mind in relation to our needs, based on self-knowledge. In other words, if we know what we want to do, know that we do not have the skill or knowledge to do it, but know where we can acquire the knowledge, or find someone who has the necessary skill to do the job for us, then we are still exercising autonomy, provided that we are prepared to be accountable for our decision. As autonomous people we must be responsible both to ourselves and to others for actions that arise from our choices.

Metacognition

In the debate about autonomy much has been said on the subject of what constitute relevant criteria on which to base our choices, decisions and subsequent actions, and I have suggested that both reason, and wants and needs, can be valid considerations in this context. However, considered choices cannot be made without adequate reflection, and for this we need metacognitive skill: the ability to think about our own thinking; to analyse how and why we make the choices we do. In an autonomous person it will involve thinking about criteria, analysing wants and needs, making rational decisions, considering our responsibility to ourselves and others; and evaluating the outcomes of our thinking in order to inform our actions. It also involves evaluating the efficacy of those actions, and using the lessons learnt from the evaluation to inform future choices. It is the basis of learning from experience.

The attributes of autonomy that I have described are all interrelated. A fully autonomous individual would possess all of them, but it is possible, at any stage of our lives, for some of them to be more fully formed than others. It is also possible for educators to identify and implement strategies which will encourage the development of these attributes; and equally possible for them to adopt strategies that will impede their development, or even, particularly in the area of self-actualisation, suppress them altogether.

I have already suggested, in relation to creativity, that as we move from infancy to childhood to adolescence, the development of imagination, self-esteem, self-

confidence, self-motivation and personal reflection are increasingly neglected if not actively suppressed, and the suggestion applies equally to the characteristics of autonomy. In parallel with this movement, as children progress through the education system, is a decline in their interest in, and commitment to learning. In the last twenty years or so, a connection has been made between autonomy and learning in schools, which is reflected in a new rhetoric which employs such terms as ‘self-directed learning’, ‘self-regulated learning’, ‘independent learning’, ‘student-centred learning’, ‘active learning’, ‘experiential learning’ and ‘learning from experience’.

However, there is a danger implicit in the terminology, that educators may confuse the process with the practice. They may be expecting pupils to direct their own learning, to learn independently and to learn from experience, without recognising the need to develop the characteristics that will enable them to learn in this way: the characteristics that I have identified as the components of autonomy. The further we are along the road to possessing these characteristics, the more effective we will be, not only as individuals in society, but also as learners.

The relationship between learning and autonomy can, I believe, be illuminated by drawing a distinction between experiential learning and learning from experience; terms which are used in relation to learning at all stages, from infancy to higher education and beyond. Thorpe (1993) observes that

‘experiential learning’ has attained currency and popularity at the expense of coherence as an idea. So many different practices can legitimately (sometimes not so legitimately) claim to be examples of experiential learning, that only the most abstract definition of what it means will now do. (Thorpe, 1993, p. 12)

However, I would suggest that experiential learning and learning from experience are, like autonomy and independence, expressions which are often used synonymously, or at least vaguely, but which for me have significantly different and distinct meanings.

It could be argued that all learning is the result of experience. In early infancy we react to and then start to explore our surroundings, and begin to build up schemas about the world and our place in it. We learn through imitation, observation and exploration, and

generally we learn what we want to learn, and at the pace we want to learn it. This is an early manifestation of ‘experiential learning’, which I would define as a process in which we engage with an experience, reflect upon it and then translate it into concepts which in turn become the guidelines for new experiences. In the case of the pre-school child the ‘reflection’ is probably unconscious, rather than the metacognitive activity implied in the definition, but the essence of the learning activity is the same: it is self-directed, experiential and open-ended, and the lessons are internalised.

As we grow up and go to school, this kind of learning is displaced by the controlled experiences of the classroom. Our learning is no longer self-directed: it is very carefully orchestrated by our teachers who have to meet the requirements of the National Curriculum, and the examination boards. We are still learning as a result of our experiences, but the experiences themselves, and the learning outcomes, are directed by others. Motivation tends to be extrinsic, and knowledge is often compartmentalised, with little transfer of knowledge and skills between one subject and another.

Experiential learning does not stop as soon as we start school: it continues outside school, or even in school but outside the curriculum, but, like creativity, it tends gradually to be suppressed by loss of confidence, and pressure from peers and adults to conform: self-direction is all but impossible for the adolescent who is striving to find an identity. In many schools ‘learning from experience’ is encouraged within the curriculum, manifesting itself in project work, or field trips, or scientific exploration, and the pupils may well be encouraged to be ‘self-directed’ and ‘independent’.

However, the experiences themselves will have been selected by the teacher and the opportunities for self-direction and independence will be within a set of narrow tramlines, which lead to the same, teacher-directed end. Recalling Dearden’s (1972) observation that the conditions for developing autonomy are not necessarily the same as those required for its exercise, it is very possible that encouraging learning from experience is a way of helping pupils develop some of the characteristics of autonomy, but it is not autonomous learning. Just as autonomy can be encouraged by allowing students some independence when they are ready for it, so the capacity for experiential learning may be encouraged by providing students with the opportunity to learn from experience. Usher (1994) suggests how this may be done:

Is there a difference between learning from experience and experiential learning? The former happens in everyday contexts as part of day to day life, although it is rarely recognized as such. Experiential learning, on the other hand, is a key element of a discourse which has this everyday process as its 'subject' and which constructs it in a certain way. (Usher, 1994, p.169)

As I interpret experiential learning, this discourse is essentially internal and if the teacher- created opportunities for learning from experience are to be transformed into experiential learning, the pupil must not only be encouraged , but also actively helped, to recognise the nature of the opportunity being provided and then to engage in Usher's 'discourse' through a process of active reflection.

I have already indicated that I consider metacognition (reflection) to be an important characteristic of autonomy, and I would suggest that effective experiential learning equally requires the exercise of the other capacities related to autonomy; motivational and instrumental independence, self-actualisation, and responsibility. It could be argued, therefore, that providing opportunities for learning from experience should also help with the development of autonomy. As Kenny observes, 'experiential learning is one context in which autonomy receives a fuller exploitation' (Kenny, 1993, p. 431).

One type of learning from experience where school students are sometimes encouraged to reflect as part of the learning process is 'work-experience'. Many secondary schools include in their curriculum a period of work experience, where the pupil may choose an occupational area which interests her/him, and spend two or three weeks on placement. More often than not the outcomes for the placement period will have been prescribed by the school within a fairly rigid and limited framework, the purpose of the work experience being no more than to give the pupils a taste of the kind of work involved in a particular occupation in order to help them with their career or further education choices. However, in some schools, pupils may be required to complete an open ended questionnaire, or even prepare a portfolio, in which they are asked to say what they think they have learnt from their work experience. The diversity of placements means that, unlike most school based 'learning from experience' experiences, learning outcomes have to be more open ended, and there is therefore opportunity for the pupil to engage in meaningful reflection, in order to complete her/his assignment. It is

interesting that this opportunity for experiential learning occurs only when the pupil moves out of school and into the 'real world'.

Although work experience is a fairly recent innovation in secondary schools, in further and higher education, it has a much longer and more varied history, and in the last twenty years, in higher education in particular, a great deal of attention has been paid to the nature and purpose of a variety of types of work-based learning. This has increasingly taken a perspective which embraces a recognition of the value of autonomy as an educational aim. In the next chapter I shall look at how approaches to work-based learning in higher education have developed over the years to the present situation where it has become a focus for challenge and change.

2



BUILDING ON THE PAST: STUDENTS AND WORKERS

*Go, from the Creatures thy instructions take:
Learn from the birds what food the thickets yield;
Learn from the beasts the physic of the field;
Thy arts of building from the bee receive;
Learn of the mole to plow, the worm to weave;
Learn of the little Nautilus to sail,
Spread the thin oar, and catch the driving gale.
Here too all forms of social union find,
And hence let Reason, late, instruct Mankind.
ALEXANDER POPE (*An Essay on Man: Epistle III*)*

Until the beginning of the nineteenth century, work and education were held to be mutually exclusive. Poor children worked during the week and, if they were lucky, were educated on a Sunday; rich children were educated, and did not work. Adults worked, and educated themselves as and when they could. Learning was, for the most part, and for most people, experiential. In higher education, courses were delivered and students learned if they chose to. Only in the last century have developing technologies, international markets and global economics highlighted the link between education and work, and caused higher education institutions to re-examine what they teach and how they teach it, and how this relates to the wider economic and social context. Even as late as 1993 David Boud could observe

There is a traditional ethos of sink or swim in many university courses which owes more to the muscular traditions of nineteenth century English boarding schools than to any knowledge that we have about learning or about the modern context of higher education. The key issue in whatever approach we use is what kinds of support and challenge, in what kinds of structure, within which limits of resource do we

need to provide to be most effective in building on the base of experience. (Boud, 1993 p.41)

In order to understand the significance of more recent developments in work-based learning in higher education, and the impact which issues of experiential learning and autonomy have made on curriculum development, it is necessary to consider how the links between higher education and the world of work have been forged and strengthened over the last hundred years.

From the middle of the nineteenth century, much of British industry had modernised and was using complex technologies to produce a variety of commodities to an assured quality not previously demanded. The technicians, chemists and engineers who were being asked to achieve these standards were working at the limits of their personal knowledge and skills, and were pushing existing technologies to the edge of their capabilities. It was becoming apparent that industry needed a workforce of highly educated self-motivated experts in their field who could realise new paradigms for the production of goods which could compete with similar products from abroad, and in particular from Germany. Although in Britain at this time there was no coherent national strategy for educating and training industrial chemists, technicians and engineers, this was not the case on the continent, where governments were willing to take a more interventionist role. As early as 1819, for example, the German state of Prussia had established a 'Technical Commission' which promoted technology through lectures and the publication of technical books. (Greaves & Carpenter, 1978, p.106)

In Britain learning from experience was seen as the appropriate model for engineers, and most professional engineers received their training as fee-paying pupils of industrial firms or consultant engineers.

It was considered essential that the pupil engineer should be practised in the use of hand and machine tools; professional knowledge was acquired by working under a professional engineer. The few engineers who received their training at university or college were viewed with suspicion in the industry. (Greaves & Carpenter, 1978, p.106)

However, some British workers went abroad in search of technical education and studied in France at the Ecole Polytechnique, a quality school dedicated to the training

of engineers (Greaves and Carpenter, 1978, p.106), or in America at the Massachusetts Institute of Technology, while many of those who remained at home advanced their education in the Mechanics and Technical Institutes which were springing up throughout Britain, for the most part sponsored by local firms. These, however, were limited in what they could achieve by the poor system of primary education on which they had to build. In the larger cities like Glasgow, Leeds, Manchester and London, industrialists worked with progressive civic authorities to establish institutions for the instruction of artisans and skilled workers in science and technology, and following the example of John Owen's Technical College in Manchester (later to become the first civic university), many of them went on to cater for white collar workers who required a more advanced theoretical education in science and technology.

In response to lobbying from industrialists and academics who were concerned by Britain's failure to match the standard of technical education on the continent, the Government of the day established a Royal Commission to investigate the state of technical education in the country. When the Commission reported in 1884 it recommended the creation of a system of secondary education with the purpose of instructing students in initial technical training to prepare them for the demands of further and higher education in the field. At the same time, voices within the principal universities were starting to challenge the adage that work of a practical nature was not considered a suitable occupation for gentlemen (Greaves and Carpenter, 1978, p.103) and were pressing for the acceptance of engineering as a reputable university subject. Glasgow University, and King's College London, had created Chairs in Engineering in the 1850s, but the major universities like Oxford, Cambridge and Durham, although they were beginning to realise the importance of industry-related disciplines and were carrying out much distinguished scientific research, had done nothing to forge direct links with industry (Sanderson, 1972).

The mechanics institutes, on the other hand, were inextricably linked with industry, for the most part owing their existence to local entrepreneurs who were willing to sponsor an establishment on the understanding that they could have a say in what was taught. Some of these institutes developed into technical colleges, catering for a wider range of students; most notably Birkbeck College, which was established in 1920 and whose

present role as an adult education institution reflects its origins. Civic universities like Manchester and Birmingham also owed a great deal to local industrial enterprise, and maintained links with their local communities and industry: links which were reinforced by the coming of the First World War.

Manchester University worked closely with heavy industry machine tool companies and the cotton and fabric trades, Birmingham pursued developments in transport and metallurgy, while Liverpool exploited its position in a port surrounded by chemical plants to further research in marine technology, tropical medicine and chemistry. Other colleges and universities also focused their attention on applied research in areas such as aeronautics, transport, and explosives.

In 1916 this informal co-operation between universities and industry was given national recognition when the Government established the Department of Scientific and Industrial Research (D.S.I.R.). The department united researchers, scientists and industrialists under the Chairmanship of Sir William McCormick, a man who had previously chaired the consultative committee of the Board of Education, and had therefore been responsible for the allocation of government grants to colleges and universities. Not only did the establishment of the D.S.I.R. benefit the universities by giving them public recognition and direct responsibility for the development of industrial science, but university academics and researchers were seen by the general public to be making a central contribution to the war effort; a contribution which some commentators saw as a key factor in Britain's victory (Fisher, 1919; Sanderson, 1972).

Nevertheless, there was still a body of opinion which remained hostile to the arrival of graduates in industry, claiming that theorists were no match for practical men, and were making decisions without having relevant work experience. Foremost among these objectors was the otherwise progressive Lord Leverhulme who maintained that book-educated students were of less value to industry than practically trained craftsmen, and observed in the Lever house magazine that 'the Oxford graduate is not a patch on the 'hard knocks graduate'' (quoted in Progress, 1924, p.206). However, during the 1920s many industrialists were obliged to amend these views, and certainly

today Lever Brothers counts as one of the few places I have worked where female graduate engineers predominate among the workforce.

When the war ended in 1918 whole industries had to reposition themselves. Many basic heavy industries which had been sustained by the war effort collapsed, and others had to change direction in order to survive. With increasing competition from Europe and America, and the emergence of new science based industries, there was a shift away from skilled manpower to scientifically trained personnel. Companies who found that their needs could not be met from within existing university faculties, recruited graduates to create their own research and development departments. However, as well as technical expertise, companies also required the skills of management, personnel administration and process control, areas in which many graduates had neither training nor experience. Consequently some companies, particularly in the motor industry, continued to provide in-house training through apprenticeships, believing that 'the University mind is a hindrance rather than a help' (Sir Herbert Austin, quoted in Sanderson, 1972, p.287).

Nevertheless the demand for graduates continued to increase, and as well as those with expertise in science and technology, industry now required specialists in business management, accounting, personnel and sales. Universities endeavoured to address this need by introducing new subjects into the curriculum. In 1919 both Edinburgh and Aberdeen offered the degree of Bachelor of Commerce, and other institutions were developing courses in industrial administration, language studies for industry, statistics and psychology. Even these were not met with approval by some companies, who still felt that the nature of the courses was too far removed from what was actually required in the workplace, and in both Manchester and the London School of Economics, industrialists themselves sponsored new business departments where they could have direct input into the content of the courses being offered.

As well as sponsors offering themselves for new courses, universities were beginning actively to look for sponsors. In 1922, Bristol University was seeking commercial sponsorship for research fellowships, with the sponsors being offered the opportunity both to determine the nature of the research, and to have prior knowledge of its results

(Sanderson, 1972, p.307). This gave rise to the feeling among some academics (Coysh, 1928 and Herklots, 1928, referred to in Sanderson, 1972, p.307; Simon, 1943) that industry was interfering too much in the academic life of universities, and was beginning to direct the curriculum towards specialisms at the expense of the broad liberal education that many believed was the *raison d'être* of the university. In 1927 Lord Rutherford observed that to use university research laboratories mainly for industry related research would be 'an unmitigated disaster' (Rutherford, 1927, quoted in Sanderson, 1972, p.307). However, the disaster, if such it would have been, was averted by the fact that by the 1930s research was moving out of the universities and into the better equipped research and development laboratories of new companies. No university could match the laboratory facilities offered by the giant Imperial Chemical Industries (ICI), for example, and even Manchester University, which had a strong tradition of carrying out electro-scientific research for local companies, became concerned that they were no longer at the cutting edge of developments, as more and more firms developed their own research programmes in this area. (Sanderson, 1972, p.28).

Once again, the tensions between industry and academia were resolved, albeit temporarily, by the outbreak of war with Germany. This time it was a war of technology from the outset, and it was imperative that education and industry should unite to combine the country's best brains and most active minds in the search for the technological breakthrough which would defeat the enemy. The Government acted swiftly, and formulated a strategy whereby students were allowed to complete their university training and were then conscripted by the Department of Industry into the Armed Services, into Government departments or into industry, according to their specialism. University staff and students could be moved out of their institutions and into industrial or government establishments to carry out their research in the fully equipped research and development laboratories that had been established during the previous decades, with the added benefit of removing key personnel away from the large university towns and cities which were the target of frequent air raids.

University professors and dons were now housed in senior government departments or were taking joint responsibility in industrial laboratories, which meant that they had a

central role in the war effort at decision making level. Inevitably they obtained a broader perspective, a new awareness of the way industry worked, of the need to link theory with practice to achieve an end product, and of the need to co-operate and, sometimes, to compromise: lessons which are valued as outcomes of any work-based learning provided today. The new relationships between academics and industrialists brought about some dramatic scientific developments, and proved that theorists and practitioners could work together, not only for the benefit of the country at war, but also to the advantage of both universities and industry. Links which were established in the war years, with companies like ICI, the General Electric Company (GEC) and Electric and Musical Industries (EMI), continued well into the 1970s, reinforced by post war government intervention in the field of education and training for science and technology.

As the war ended, ex-servicemen were returning to civilian life looking for a bright future in the new Britain they had fought for, where education and training would be available to help them towards it. At the same time, industry was experiencing a shortage of trained scientists and technicians, and the new Labour Government set up a committee to look into the need for more technical education facilities and more technically trained manpower. The first of these committees, established in April 1944, was chaired by Lord Eustace Percy, who had been concerned with the state and status of Technical Colleges for over a decade. As early as 1930 he described them as ‘mere useful adjuncts of the workshop and the mine’ (Percy, 1930, p.57); the implication being that they were serving the needs of industry at the expense of providing an education. His vision was one of local colleges being given the opportunity, alongside and in collaboration with the universities, to provide a broad technical education, offering subjects as diverse as art and management or commerce and technology, in establishments that would ‘lead a man to think about his job, not just to know about it’ (Percy, 1930, p.3): an argument that is still being used today by advocates of work-based learning (see Chapter 3).

The remit of Percy’s committee was exactly in his area of interest:

Having regard to the requirement of industry to consider the need of higher technological education in England and Wales and the respective contribution to be made thereto by

universities and technical colleges, and to make recommendations, among other things, as to the means for maintaining appropriate collaboration between universities and technical colleges in the field (Matterson, 1981, p.78).

When the Committee reported, it condemned the way Britain trained its engineers and technicians, referring to the fact that the majority of them studied in evening classes, and that 'the annual intake into industries of the country of men trained by universities and technical colleges has been and still is, insufficient in both quantity and quality'. (Sanderson, 1972, p.349) It recommended that at least one third of all engineering students should be in full time training with sandwich placements for practical work experience. In 1946 a second committee was established, which focused on science education and training. Like the Percy Committee it identified a severe shortage of scientists and technologists, and recommended that the numbers should be doubled within ten years. In fact, helped by the returning servicemen, universities achieved this target in half the time.

In spite of the impressive response made by the universities, appropriately trained graduates were still at a premium, and many companies found it useful to develop allegiances with particular universities in an attempt to persuade potential graduates that their futures should lie with them. ICI, for example, had close links with both Oxford and Cambridge, and set up a number of vacation courses which were aimed at second year students, and gave them an overview of the chemical industry. These programmes, first established at Cambridge in 1953, may be seen as the forerunners of the modern university sandwich courses, whereby undergraduates undertake some form of work experience as part of their studies.

Industry's demand for graduates at this time seemed insatiable. As well as scientists and technologists they were recruiting those studying the arts, whose career paths previously had led them in great numbers into teaching or the Civil Service. Industrialists recognised that much of the administration and personnel work traditionally carried out by science-trained graduates could be undertaken just as effectively by those with an arts background, thereby releasing scientists for more specialist roles. Furthermore, there was a common belief that arts graduates possessed

special characteristics that lent themselves to personnel work: they were perceived as being creative, with a breadth of vision and a rounded quality which scientists were presumed to lack (Sanderson, 1972, p. 356).

In the 1950s the focus was on the need to train more technical personnel, and in 1956 the Government White Paper, Technical Education (DES, 1956) proposed a four tier system of education to achieve this:

- local colleges which would offer craft qualifications such as City and Guilds
- area colleges with facilities to provide full-time and sandwich courses
- regional colleges whose remit would be full time advanced courses such as Higher National Diplomas (HND) and degrees
- colleges of advanced technology, providing in the main sandwich type degree courses.

These proposals were put into effect during the late 1950s and early 1960s, and at the same time seven new ‘plate glass’ universities were established. These were situated outside the large cities, in York, Brighton, Lancaster and Norwich, for example, and had few or no links with industry at all. These new universities concentrated largely on the arts and social sciences, and the University of East Anglia (Norwich) in particular ‘was consciously founded ... as a seminar-based rather than a lecture-based university’ (Hamilton, 1990, p.55), which, as Hamilton points out, demonstrated a recognition of ‘new kinds of social relationships, new cultural alignments among teachers and learners, and new ways of conceptualizing indoctrination, education and schooling’.

Industry was changing rapidly during the 1960s, fuelled by the ‘white hot heat of technology’ and the need for higher education to keep pace was becoming imperative. In 1963 the Robbins Report (DES, 1963) recommended the establishment of a national system of higher education and that higher education should be available to anyone who was suitably qualified and wanted it. Robbins was supportive of the university tradition, and set out objectives which all Higher Education institutions should adhere to in order to maintain standards:

- skills must be important
- teaching should develop the general power of the mind
- higher education must be about the advancement of learning with a balance between teaching and research
- higher education must be concerned with the transmission of a common culture / citizenship.

Robbins' main recommendation of a single system of higher education was not followed through, although the need for expansion in the sector was recognised and ten Colleges of Advanced Technology, including Salford and Bradford, were given full university status. One significant outcome of the Robbins Report was the establishment of the Council for National Academic Awards (CNAA), which had the power to award degrees outside the existing university system, and therefore made possible the development of a binary system of higher education. This was announced by the Government in 1965, written into a White Paper in 1966 (DES, 1966), and in 1970 thirty colleges of technology were awarded polytechnic status. (Lowe, 1990, p.15).

This was a well timed development, since the 1960s had seen a decline in the number of students taking up careers in industry. Sixth form students were inclining more towards pure science rather than industry related subjects, and there was a growing disenchantment with industry as a whole. (Sanderson, 1972, p.379). The profit motive which drove the industrial giants was distrusted by the 'peace and love' philosophy of the 1960s and early 1970s, particularly as this time also saw the dawning of a greater ecological awareness. Jobs were plentiful and graduates were so much in demand that they could choose where to invest their talents. A number of studies undertaken in the 1960s (Zweig, 1963; Marris, 1964; Hutchings, 1967) all suggested that large numbers of students, particularly in the sciences, were choosing careers outside industry.

The conversion of Colleges of Advanced Technology (CATs) into technological universities and the creation of the polytechnics began to stem the tide and redirect graduates back into industry. The CATs had been created from the old technical colleges which had a unique interdependence with local industry, and even with university status the ethos continued to centre on the local community and local industry. Their approach to learning was traditionally collaborative with the emphasis on problem-solving, and many courses continued the sandwich model of the CATs. The close relationship with local industry meant that students gained in-depth knowledge in their particular field, often through work based learning. Loughborough University, for example, ran a PhD course in which the students gained their qualification predominantly through working at Rolls Royce, though it was to be some

years before work based learning for academic credit gained credence at undergraduate level (see Chapter 3).

Polytechnics, like the technological universities, developed from technical colleges and had the same strong links with local industry and communities, and although they were generally welcomed by colleges, industry and local authorities, the so-called 'old' universities were less enthusiastic, fearing a dilution of standards as much as competition for students, which had not yet become a significant issue. (Matterson, 1981, p.63). The philosophy of the polytechnics was 'to emphasise the aspect of "doing", of application, of capability' (Scott, 1984, p.13). They too promoted the sandwich course, which could almost be seen as a symbol of the divide between the established universities and the non-university sector, and polytechnics and colleges shared a common identity as institutions more suited to teaching subjects with a practical or creative dimension. The creation of the polytechnics and the large numbers of students they attracted contributed to a return to respectability for industry in the public perception: an impression that was to be reinforced by the political ethos of the 1970s and 80s.

Although industry was no longer disparaged, the 1970s brought its own problems, in the shape of a major economic recession. Industry began to cut back on research and development, large multinationals started to diversify and companies reduced their work force in an attempt to compete in the international market. While larger companies had the upper hand in the recruitment of graduates and could afford to be selective, many of those who might previously have been employed in research and development laboratories found work in the smaller specialised service companies which emerged at this time. While too small to have their own research and development facilities, many of these firms were based on advanced technology, and depended for their success on scientists and technologists coming out of, or still working in higher education.

This should have been an ideal opportunity for the new polytechnics to expand and diversify, but in fact the recession was making its own demands on the institutions. Unemployment was rising, industry was shedding staff and placements for sandwich

course students were becoming harder to find. On the other hand, polytechnics were seen as a rate supported service on which local industries could call without charge, although payment in kind had often been made in advance in the shape of equipment and materials. Unlike the universities, which were supported by industry on a more direct basis, with companies acting as benefactors or putting finance directly into large scale research projects, the polytechnics were expected to provide a comprehensive range of courses to cater for local needs with far less financial security.

In the 1960s student numbers in the universities increased by 110%. In the 1970s, competition from the polytechnics reduced this to 35% (Stewart, 1989, p.149) and, as unemployment grew, both sectors began to look to mature students to keep up their numbers. However, they now had to face yet more competition in the shape of the Open University, founded by Prime Minister Harold Wilson in 1971, and intended to enable those adults who had slipped through the academic net at 16 or 18 to study for a degree while still at work or bringing up a family. Not only was the Open University revolutionary in its use of distance learning supported by media technology, but it also allowed students who had no formal qualifications at all to enrol on its courses. The degree structure was entirely modular, so students could create a course which met their needs and interests, and the egalitarian nature of the institution was reflected in its teaching methods which were enquiry based, with individual learning supported by small-scale seminars and summer schools. Open University students had to be highly motivated and capable of independent learning in order to succeed, and yet they succeeded in large numbers.

Meanwhile, the polytechnics continued to promote their strength, which was the provision of well established sandwich courses, offering occupational training as an integral part of the degree qualification. Courses usually followed either the 'thick sandwich' model, with students spending a full year in industry before returning to complete their degree, or a 'thin sandwich' model, where two or more shorter periods of work experience were interposed into the academic course. Although both types of course were intended to provide vocational training to enhance the employability of the student, the value of a period of work experience for any student was recognised, 'whether or not the graduate ultimately entered industry. Even if a so-called academic

career is followed, industrial experience is a valuable asset, enabling the person to combat the assertion that he has no knowledge of the 'real' world' (Broadbent, 1968, p.8).

Sandwich courses, however, whether thick or thin, tended to be expensive in terms of time and money, as the Research into Sandwich Education (RISE) report An assessment of the costs and benefits of sandwich education (DES, 1985) revealed, and the same report also identified the fact that links between the student's academic course and her/his work experience were often tenuous, and that there was a need for more effective assessment of the sandwich experience.

A similar view was taken by Evans (1991), who referred to the RISE report in defence of his argument that there was no convincing educational justification for the four year sandwich programme, and maintained that the fact that tutors were indifferent as to when work placement should occur within the degree course effectively 'demolished all claims to sandwich courses being able to integrate theory and practice' (Evans, 1991, p. iv).

However, not everyone was as ready to dismiss sandwich degree courses, and some of the criticisms were addressed in a report from Sheffield Polytechnic (now Sheffield Hallam University). This drew attention to problems encountered by students on sandwich placements, and emphasised the importance of the role of both the academic tutor and the workplace supervisor in making sure that the student had a worthwhile and meaningful work experience (Ashworth, Sexton & Buckle, 1988). The report defended the sandwich course as making a valuable contribution to higher education in so far as it bridged the gap between the academic and the industrial world:

In our view, academic knowledge has the purpose of providing the opportunity for individuals to reflect on their lived experience of the subject matter of the discipline. This means that as far as theory is concerned, academic knowledge is to be understood as an interpretive resource for understanding experience. And on the practical side of the equation, experience is not of any value for understanding unless it is raised to the level of reflection.
(Ashworth, Sexton & Buckle, 1988, p.29)

The following year, Sheffield Hallam produced a further report (Ashworth & Sexton, 1989), this time taking up the issue of assessment which had been raised in the RISE report. The authors concluded that although assessment is of value in facilitating 'genuine, meaningful experiential learning' (Ashworth & Sexton, 1989, p.60), the model of assessment that was necessary for work experience was too complex to serve as a basis for a quantitative measurement that could be used to help establish the overall degree class. A summative assessment of work experience should, they suggested, include 'the perception of relevant student behaviour; the judgement of its quality as placement performance; and the communication of this assessment to an audience' (Ashworth & Sexton, 1989, p.60), and because this is essentially 'a human and social enterprise' it could not be sufficiently reliable and valid to count towards a final degree score. Instead the authors advocated 'a qualitative account including a transcript of activities' (Ashworth & Sexton, 1989, p.60) and recommended separate certification of placement performance.

Mathews (1986) suggested a different approach to the assessment issue in a project which looked at the possibility of assessing sandwich placements using the model adopted for accrediting occupational competence for students on the Government Youth Training Scheme (YTS). This involved focusing on 'core skills' (a concept which later became central to both the National Curriculum and General/National Vocational Qualifications). According to Mathews,

accreditation is all too often treated as a set of 'assessments' with a formal statement of achievement (certificate) related in some way to the outcome of the assessments. Discussion of accreditation is confined to the merits or otherwise of assessment 'techniques' - a test, an examination, a rating scale, a format for reporting - in each case a magic formula for achieving respectability. The resulting accreditation represents the triumph of the easy to measure over the useful-to-know (Mathews, 1986, p.3).

He argues, and I would agree with him, that the greatest value of any placement lies in its uniqueness. Placements vary enormously in their organisation, employment strategies and what they are prepared to offer the learner, and this presents each student with a particular set of challenges. If the learner can be encouraged or helped to identify the core skills which are necessary for the performance of the various tasks s/he

undertakes, then success in a given task can be taken as a demonstration of competence in the relevant core skills. In this way, a student's achievements can be assessed in a way which is meaningful to the student in her/his unique situation but can also form a valid basis for criterion referenced accreditation.

The YTS core skills focused on the four key areas of Number, Communication, Problem Solving and Practical (Mathews, 1986, p.6), and as Mathews suggests, these may need to be amended to provide appropriate core skills for the assessment of students on sandwich placements or in other work-based learning situations, but if they are to 'capture the kinds of learning which are demonstrated in the workplace' (Mathews, 1986, p.11) the last three at least would probably be appropriate in all circumstances and at all levels. However, while the idea of key competencies now underlies several models of work based learning assessment in higher education, there have been problems in relating such schemes to the grading system considered necessary for academic credibility (Brennan & Little, 1996, p.119). Accordingly some academic institutions and professional bodies have been reluctant to accord parity of esteem to General National Vocational Qualifications (GNVQ) and National Vocational Qualifications (NVQ) which are competence based. On the evidence of submissions to the National Committee of Inquiry into Higher Education (NCIHE), the issue of comparability of standards in higher education will not be easily resolved. (Quality Standards Council/Committee of Vice Chancellors and Principals, 1997, p.9)

Ashworth's and Mathews' discussions of the assessment of work based learning and its place in the field of higher education foreshadowed a tremendous upsurge of interest during the next ten years (e.g. Evans 1988; Levy et. al. 1989; Skilbeck et. al., 1994; West & Fraser, 1992). The economic imperatives of the 1980s and 1990s, not least the transfer of the polytechnics away from local authority control to independent university status, engendered fierce competition among institutions for students, and led to a re-examination of the curriculum of conventional undergraduate courses and an exploration of the possibilities of recruiting mature students from the workplace in pursuit of lifelong learning. Quality, as well as quantity, was becoming an issue.

To stand any chance of claiming excellence in the current HEQC/HEFC¹ quality audit and assessment exercises, institutions will need to be able to demonstrate that the education they offer will enhance students' understanding and excite their intellectual curiosity and expand their knowledge and skills. Simply floating the usual papers at review and validation time won't be enough. It's not just a matter of what course teams feel, think and know about the curriculum, it's what they do. Are they promoting active learning? Live projects? Independent, autonomous learning? Peer assessment? Collaborative group work, etc? (Colling, 1993, p.23)

While curriculum change may help attract students to one institution rather than another, the number of students with traditional entry qualifications would always be finite. However, as the success of the Open University demonstrated, there was a huge untapped potential for new recruits among the adult population who did not have two or three 'A' levels, but whose life experiences themselves demonstrated both past achievement and future potential. Life and especially work experience, therefore came to be recognised as a qualification for undertaking higher education in the guise of Assessment of Prior Experiential Learning (APEL) and also as an arena for gaining formal qualifications such as NVQs.

In the United States of America advocates of experiential learning had been influencing developments since the late 1940s when traditional schooling began to be criticised for failing to prepare young people for jobs and social participation and proposals for 'life adjustment' education were put forward (Skilbeck et al., 1994, p.12). Although such programmes were themselves criticised for 'lack of substance and intellectual challenge' (Skilbeck et al., 1994, p.12), dissatisfaction with the educational system continued and led to increased interest in vocational education, which was given weight by the involvement of labour or employment ministries as well as educators and employers in the educational debate. Over a number of years the Federal Department of Labour (FDL) directed resources into identifying the demographic and technological changes affecting the American workforce, and established a dialogue with educationalists, employers, worker representatives and other interest groups. This enterprise resulted in the cataloguing of a wealth of valuable information about workplace dynamics, skill acquisition and experiential learning.

¹ Higher Education Quality Council / Higher Education Funding Council

In 1987 the United States Employment and Training Administration launched an ‘Apprenticeship 2000’ initiative to ‘determine what role the apprenticeship concept might play in raising the skill levels of American workers’ (CONNECT, 1996, p.1), and the subsequent report made recommendations for a major new emphasis on the training of American workers and gave currency to the notion of learning from experience. Its key findings highlighted some of the issues which are concerning educators and politicians in Britain today:

- This country’s continued economic well-being is tied to how well it manages its human resources.
- Changing demographics, combined with increasing complexity of the workplace, have made training and retraining of all American workers critical issues requiring national leadership and policy.
- Increasing evidence points to work-based learning as the most effective method of skill acquisition because this method of experiential learning generally works best for individual learners and because the training can be tailored to the employer’s needs. (CONNECT, 1996, p.3)

The authors of the report went on to make a number of recommendations for both policy and practice, and to propose ‘a series of steps which, if implemented successfully, will stimulate more and better investment in human capital’ (CONNECT, 1996, p.24). The outcome of these steps would be the development of

new training models ... to encourage the expansion of structured work-based training programmes, incorporating features from apprenticeship (including)

- The basic model of structured on-the job training combined with classroom or theoretical instruction;
- The formal recognition afforded programs and the awarding of worker credentials upon completion;
- Private sponsorship, tailored to the workplace, with limited support from government and education;
- The transfer of skills on the job through a mentor, skilled supervisor or skilled co-workers, and
- A contract or agreement between the training sponsor and the trainees on the processes and outcomes of training. (CONNECT, 1996, p.3)

Many of these features are now found in the models of work based learning adopted by higher education institutions in Britain (see Chapter 3), but America still leads the way in work based learning developments: especially since the FDL accepted the

recommendation from Apprenticeship 2000 and created an Office of Work Based Learning in 1990.

The FDL has made progress in work based learning developments through a series of projects, initiated by the Department but implemented in partnership with large companies and interested organisations, in particular the Council for Adult and Experiential Learning (CAEL). CAEL was founded in 1974 and has representatives from colleges, universities, service organisations, corporations and industries, all of whom share 'a philosophical commitment to adult and experiential learning' (Tate, 1996, p.1), and dedication to establishing links between education, industry and the community. CAEL has done pioneering work in the field of assessment and accreditation of experiential learning, and recently, working with the FDL, trade unions and business they have introduced a scheme which encourages employees to participate in educational courses and enables employers to be reimbursed for tuition fees (Portwood & Naish, 1993).

The FDL also works closely with the American Society for Training and Development, an institution dedicated to all forms of work based learning, which undertakes research into learning experiences in the workplace, and the American Federation of Labor and Congress of Industrial Organizations, which lobbies for the labour movement, is an advisory agent for the government and works closely with education.

America's commitment to the value of work based learning was demonstrated when Congress passed the School-to-Work Opportunities Act of 1994: one of the aims of the Act being

to establish a national framework within which all states can create statewide school-to-work opportunity systems that

- are a part of comprehensive education reform
- are integrated with the systems developed under the Goals 2000 Education America Act and the National Skill Standards Act of 1994 (Section 3).

The Act made it mandatory for the work based learning component of any school-to-work opportunities programme to include planned work experience and job training which is progressive with regard to the skills to be mastered, co-ordinated with

learning in the school-based component, and leads to the award of skills certificates (Section 103). More importantly, perhaps, the Act also provides funds for States and localities to develop and expand programmes that specifically include a work based learning component, and as Stasz and Brewer (1997) observe,

Work based learning - learning that is planned to contribute to the intellectual and career development of high school and community college students - is gaining broad acceptance among policymakers and educators as a means of improving educational outcomes for many students (Stasz and Brewer, 1997, p.1).

Although the evidence suggests that national work based learning development in the USA is driven by economic and social concerns and the emphasis is vocational and occupational, the fact that there is commitment at government level coupled with a diversity of organisations and institutions involved in researching, implementing and developing work based learning and experiential learning in different ways and from a variety of perspectives, can only facilitate progress, particularly as 'a striking feature of all these organizations is how they pool their resources to research key issues, restructure thinking and practice and influence government' (Portwood & Naish, 1993, p.15).

In Britain, governments, educationists and industrialists share concern about the relationship between work, education, economics and society, but there does not seem to be the same degree of co-ordination between the interested parties as in the USA. Individual universities and companies continue to work together, as the recent news about Microsoft's investment at Cambridge (Radford, 1997) and Loughborough University's involvement with both British Gas and Fords (Loughborough University, 1997a; 1997b) demonstrate. In fact the latter is particularly significant in so far as the establishment of a completely new 'car dealer' degree indicates the impact that industry's requirements can have on the curriculum.

The influence of America has, however, been felt in the area of lifelong learning, where the recognition of the need for a trained workforce and of the value of experiential learning, has generated recent developments in work based learning, initiated for the most part by educationists. A key figure in the field is Norman Evans, who established

the Learning from Experience Trust in 1986. He had previously been involved with CAEL in work being undertaken in the USA in the application of the Assessment of Prior Experiential Learning, (APEL), and 'began to work out what approaches would best fit our purposes in Great Britain' (Storan, 1988, Introduction). The outcome was the MEC (Making Experience Count) pilot programme, initiated through the Policy Studies Institute, of which Evans was a Senior Fellow, and set up by Goldsmiths' College and Thames Polytechnic. Its purpose was to enable students to examine and document their prior learning in the form of a portfolio which could be submitted in support of their entry into further or higher education (Storan, 1988, p.1).

This project led Evans into further research and involvement in APEL, so that ten years later he could claim

testimony to the success of this work is to be found today in the way in which the assessment of prior and current experiential learning is being practised in higher education, further education, community and voluntary provision, training organisations and employment, in provision for the unemployed, youth training schemes, and for updating and retraining. (Evans, 1993, p.1)

It was during this time that the Learning from Experience Trust (LET) itself came into being, as an educational charity providing a small development agency, with Norman Evans as Director and Sir Charles Carter as its Chairman. The influence that the LET was to have was recognised from the outset by the Chairman, who had remarked at the inaugural meeting 'that in establishing the Trust to undertake development work it would be subversive, respectably so of course, but subversive' (Evans, 1993, Preface). Many of the developments that have occurred in the area of APEL and of work based learning in the last ten years have been directly or indirectly affected by the work of the Trust: they have been partners in schemes, an advisory service providing knowledge and experience from their research work, or guidance in their many publications, and champions of their own declared aim of encouraging 'people at work, in education, and in their own lives to make the best use of what they have learned from their experience' (Evans, 1993, p.1).

The LET established a close relationship with Anglia Polytechnic University as partners in a number of ventures, and when, in 1994, the Trust physically moved to the University's Chelmsford Block, the Chairman viewed it 'as the start of a new era of exciting development' (Bale, 1994, p.1). The University recognised that Anglia and the LET had 'a shared concern to open up access to education for all members of the community, to facilitate and accredit learning wherever it occurs and to engage constructively with the world of work' (Bale, 1994, p.1), though how far the concern on the University's part could be attributed to the subversion of the LET itself can only be guessed at.

Like Anglia, Middlesex University has been influenced by, and in turn influenced, developments in work based learning, largely due to the efforts of Derek Portwood, who, in 1995 became the Director of the National Centre for Work Based Learning Partnerships and the first Professor of Work Based Learning: 'the first such appointment in Britain and possibly in the world' (Portwood, 1995). The University now has a full programme of academic courses which are centred on Work Based Learning Studies, and the awards for these courses carry that title.

Like Evans, Portwood had spent some time in America investigating 'good practice in work based learning relative to higher education' (Portwood & Naish, 1993, Abstract), and produced a report which provided a detailed assessment of the rationale behind work based learning for academic credit in the USA (Portwood & Naish, 1993, Abstract). Working from similar background knowledge it is not surprising that the views of Portwood and Evans have coincided to have considerable impact on experiential and work based learning developments throughout Britain; a connection that was recognised in 1994 when Norman Evans was awarded an Honorary Doctorate by Middlesex University for his work with the LET.

If Portwood and Evans may be said to have set the agenda, the discussion has now taken hold, and throughout higher education, industry and government, institutions, companies and politicians are addressing the issues identified by Boud: 'what kinds of structure, within which limits of resource do we need to provide to be most effective in

building on the base of experience' (Boud, 1993, p.41). Within this discussion, the question of autonomy cannot be ignored.

In the next chapter I discuss the various ways in which institutions, in many cases working with industry, have developed work-based learning programmes, and then go on to analyse one particular programme in depth, as a possible model for promoting the kind of autonomy which will meet the needs of individuals, society and the economy in the twenty-first century.

3



STUDENTS AS WORKERS: WORKERS AS STUDENTS: MODELS OF WORK BASED LEARNING

*Here then we rest: 'The Universal Cause
Acts to one end, but acts by various laws.
ALEXANDER POPE (An Essay on Man, Epistle III)*

The universal truth of work based learning is the fact that people can and do learn at work, and the end of such learning is a more effective workforce. However, in recent years attention has focused on what is meant by an effective workforce, and how it is to be achieved, and in the context of this debate, the expression work based learning is used to refer to structured rather than incidental learning.

Although there is an increasing body of literature on the subject of work based learning, straightforward definitions of the term are rare. In their Guide to Work Based Learning Terms the Further Education Staff College give a definition of work based learning as:

- Linking learning to the work role.
and, in addition, having three inter-related components, each of which provides an essential contribution to the learning:
 - (i) Structuring learning opportunities in the workplace.
 - (ii) Providing appropriate on-job training/learning opportunities.
 - (iii) Identifying and providing relevant off-job learning opportunities. (Levy et. al., 1989, p.4)

As might be expected from a project undertaken by the Training Agency under the aegis of the Department of Employment, the specific and acknowledged focus of this interpretation is vocational, and centres on the employee as a potential learner.

Although this perspective on work based learning is widespread, and is the one which

underlies the principal of National Vocational Qualifications, it is less relevant to the purposes of this discussion than those interpretations which focus on the learner as employee. This is the model which has traditionally existed within higher education, although the distinction is becoming increasingly blurred, as institutions draw new learners from the world of work.

A simple but useful way of distinguishing between employee as learner and learner as employee is to consider the primary mode of learning that is acquired in each case. Different modes of knowledge have been identified by a number of commentators. Gibbons et al. (1994) and Scott (1995), for example, refer to mode 1, which describes academic and scientific knowledge, and mode 2 which is creative and experiential (Gibbons et al, 1994;pp.2-3; Scott, 1995, p142). Eraut (1994) uses the terms propositional knowledge and process knowledge (Eraut, 1994, pp.103 - 108), and all these terms to some degree reflect the distinction which I prefer, which can be expressed as 'learning that' or 'learning how' (terms also chosen by Ryle, 1949, p.59).

I use 'learning how' to refer to the acquisition of skills and knowledge related to practical activities and processes; 'learning that' relates to academic knowledge, theory and principles. But I also add a third mode which is 'learning that I can'. Here the learner combines learning that and learning how, translating theory into practice and comprehending practice in terms of theory, and gaining the confidence and motivation to apply knowledge in this way in a variety of situations. Only a person who has 'learnt that I can' can be considered autonomous.

The employee as learner, therefore, will be concerned with 'learning how', but will become more effective if this is reinforced by some 'learning that'. The learner as employee will be more concerned with 'learning that', but will need to consolidate such knowledge by also 'learning how'. I would suggest that both approaches are tending towards the same end: the development of an individual who has 'learnt that I can': an autonomous individual who has both theoretical knowledge and practical skills, and the confidence and the ability to use them to both problem find and problem solve.

The learner as employee is the focus of a project undertaken for the Department of Employment, by a team from Sheffield Hallam University. They posit a different, educational, model for work based learning, one which takes as its premise:

that the outcome of higher education should be developmental change. The student develops subject knowledge and intellectual skills but also develops as a learner - to the point where s/he is able to continue learning effectively and autonomously outside a formal education system.

.... This is regardless of the subject or vocational area studied and applies equally to an aspiring engineer as to a social worker. The desired rate of development may be vocationally specific - relating to the different needs and requirements of different professional groups - but the general direction is the same. (Sheffield Hallam University, 1994, p.6)

In the context of a discussion on work based learning in higher education, this more general interpretation is useful in that it focuses on the learner as employee, and identifies a specific desired outcome - developmental change leading to autonomy- but it also reflects the reality of the fact that there are many different ways and means to attain this end: that different combinations of 'learning that' and 'learning how' can result in the individual 'learning that I can'.

This diversity of approach means that there can be no simple definition of what work based learning in higher education is. The most practicable way of addressing the question is, therefore, to look at what those undertaking work based learning in higher education do, and to focus on the nature and role of work based learning in the curriculum.

A useful approach in the search for relevant interpretations of work based learning in the context of higher education , is found in the work of Brennan & Little (1996).

They devised four broad categories to reflect the way the roles of the higher education institution, the employer and the student differ according to the nature of the work based learning programme. Between them, these categories encompass the variety of programmes currently available in the higher education sector.

Type A: Curriculum framework controlled by Higher Education Institution
Content designed with employers
Learner primarily a full-time student pursuing a recognised degree.

- Type B:** Curriculum framework controlled by Higher Education Institution and professional body
Content designed by employers
Learner primarily a full-time student pursuing a professional qualification.
- Type C:** Curriculum framework controlled by Higher Education Institution
Content designed with employer, on the basis of existing course modules
Learner primarily in full time employment.
- Type D:** Curriculum framework controlled by Higher Education Institution
Focus and content designed primarily by learner to match individual needs.
Learner primarily in full time employment.

To some extent these categories reflect the different types of work based learning which Portwood (1993) identified, although he was primarily concerned with the nature of the final qualifications rather than the nature of the tripartite relationship between the higher education institution, the employer and the learner. He recognised three different models; transportation, translation and transformation. Transportation, whereby traditional college based learning is moved into the workplace, equates with types A and B where the learner is a full time student pursuing a recognised degree and/or professional qualification. The translation approach can be seen in type C, where the programme is designed by or with the employer but delivered through higher education courses or modules which already exist, or closely match existing ones. Type D represents the transformation model, which allows for a much more individualised approach through its emphasis on learning outcomes rather than a prescribed curriculum.

Type D is the most revolutionary model, in terms of the traditions of higher education institutions, and Portwood suggests that it 'will transform qualifications both in the workplace and on the campus' (Portwood, 1993, p.66). The learner is at the centre of this model, negotiating a programme with the higher education institution and the employer which builds on her/his past experience and reflects current interests and future needs. Thus the institutional framework must be interdisciplinary and the assessment techniques generic.

Leeds University has developed a work based learning programme which aims 'to make it possible for people to work to gain full university qualifications for learning which, though different, is (sic) comparable to that achieved by campus based students' (Saunders, 1996, section A1). The programme is aimed at employees and allows them to negotiate with a University tutor and an employer mentor an individualised course, which is appropriate for their particular workplace, and can lead to awards at all levels, from a Certificate of Education by Work-based Learning, which is equivalent to the first year of a full time undergraduate programme, to a PhD by Work-based Learning. Leeds identify six key components of all their work based learning programmes, which make them very different from campus based courses. Work-based learning is

- Performance or task related - particularly where circumstances are changing
- Problem based - tackling problems of production, design or management
- Autonomously managed - learning often takes place without direct instruction or formal tuition
- Team based - effective co-operation between people with different roles and experiences.
- Concerned with performance enhancement
- Innovation centred - creating opportunities for learning and providing experience for managing change.

(Saunders, 1996, Section A3)

As Portwood (1993, p.62) suggested, this type of 'transformation' model requires imaginative assessment techniques if it is to achieve the desired academic parity. Leeds has developed a set of criteria which can incorporate existing development and appraisal strategies from the workplace, but are rigorous enough to meet academic standards. It requires the student to formulate a problem; develop solutions; implement solutions; evaluate outcomes, and present findings and information. Students undertaking the programme are also required to produce a 'Personal Review of Learning' in which they record 'the outcomes of serious reflections' on their work based learning in relation to its six key components. The Review is 'concerned with the learning from experience, not the experience itself' and as such adds an extra dimension to the vocational content of the programme. (Saunders, 1996, Section A8)

The basis for assessment is the Learning Contract, which is initiated by the student, but developed in agreement with the University and the employer. This sets out:

- the general purpose of the programme of study,

- the activities of the programme,
- the support offered by the employer and the University,
- the work that will be completed (and by when),
- the resources that will be available,
- the intended learning outcomes (knowledge skills, qualities),
- how these outcomes will be demonstrated and assessed.

(Saunders, 1996, Section A7)

The Learning Contract allows all three parties to become stakeholders in the work based learning. The student can ensure that it matches her/his interests and vocational development needs; the employer can ensure that it will have a positive outcome for the company, and the University can ensure that it will meet the required academic standards. Most importantly, the student has a clear framework within which to work. Unlike campus based courses, ‘many of which are designed and delivered by lecturers for students who have limited experience of the world of work’ (Saunders, 1996, Section A4), the work based learning student’s course is designed and developed by her/himself.

As the University of Leeds recognises, their work based learning programme ‘is about fundamental shifts in our view of the valid curriculum, the nature of teaching and learning and the locus of control’ (University of Leeds, 1996, quoted in Brennan & Little, 1996, p.77). Because this ‘transformation’ model of work based learning does represent such ‘fundamental shifts’, it is not yet widely in evidence. However, a similar type of programme has been in operation at the University of Portsmouth since 1991.

The Portsmouth Partnership Programme, funded by the Department of Employment, was originally intended to provide a route into higher education for eighteen year olds who did not have ‘A’ level qualifications, but as it soon became apparent that employers were keen to sponsor employees who were older than this, the Programme was extended to 20 and 30 year olds.

Like Leeds, Portsmouth University saw itself as one partner in a tripartite arrangement. Its role was to provide accreditation of prior learning, tutor support and training for mentors. Employers were to sponsor their employees as students, and provide them with mentoring support, and work based learning opportunities. The employee/student was expected to provide time, motivation, and hard work.

The programme identified four components of study:

- work-based projects, placements or training leading to learning at the workplace
- units of study chosen from the University's courses
- skills elements to enhance professional development
- the learning that comes from the management of their own learning programmes.

(University of Portsmouth, no date)

As at Leeds, these four components were formalised in a Learning Contract, and part of the assessment procedure involved the student self-assessing her/his progress in relation to the Contract. The first self-assessment, the 'Mid-Semester Report' was intended to be formative, with the student undertaking a diagnostic analysis of progress, while the 'End of Semester Report' was seen as a summative assessment, recording marks as well as reflections, and the University emphasised that students should discuss their self-assessment with their mentor prior to submission. They also provided students with a set of 'Skills and Attainment Matrices' to help them in both designing their learning contract and assessing progress (Appendix 2).

In addition to self-assessment the University devised a set of criteria which indicated standards in terms of degree classifications. These related to criteria for essays and reports and presentations, and an additional sixfold set of criteria for characteristics of achievement (Appendix 3).

The original project finished in 1993. Although it had found that 'many students who had applied could not get sponsorship from their employers, or could not fit in study with their work commitments' (Skills and Enterprise Network, 1993, p.4) the Programme has continued and has achieved one of its aims of extending the Partnership to postgraduate level: students can now achieve Diplomas, Bachelors or Masters degrees.

This type of work based learning programme puts the student at the centre of its organisation, and makes considerable demands on her/him. The student must, in the first instance, be highly motivated: even if the employer initiates her/his enrolment on the programme and provides financial support, mentoring and opportunities for study,

the student will require internal motivation in order to undertake the sheer hard work which such a course entails. On the other hand, a student who has high internal motivation may not even be able to start on the programme unless s/he can find financial and/or employer support.

The requirement to negotiate a personal learning contract and produce formative and summative reports is also demanding, and requires metacognitive skills, and students who have no experience of reflective analysis or self-assessment could find this difficult. Despite the fact that students on these programmes are encouraged to meet together for mutual support, the individual nature of each learning contract and the disparate backgrounds of the students mean that a great deal of independent work is required, as well as an independent approach to whatever project is used as the focus for the problem-solving element of the programme.

In short, any students undertaking a 'transformation' type work based learning programme must already be largely autonomous. For them, the challenge will be learning to be students. My purpose in this chapter, however, is to identify a type of work based learning which will challenge students to become more autonomous.

In type C programmes, the learner is again usually an employee, the curriculum framework is again controlled by the University, but the content is designed with the employer, rather than by the learner her/himself. In these programmes, work based learning can be seen as a subject in its own right.

These programmes tend to rely on a close relationship between the employer, which may just be one company, and the higher education institution, who may adapt an existing course or module so that it can be delivered in the workplace to meet the needs of that company and its workforce. Some universities have developed this model into an institution wide curriculum which can be offered to a range of employees in a variety of disciplines with only minor modification.

Middlesex University began by negotiating with individual companies to tailor existing subject or discipline specific courses to meet the employees' needs, but have since

developed this into a full programme of work based learning modules (the Work Based Studies Set) which can be studied to postgraduate level. Through these they can offer a 'customised programme of study geared to meet the needs of the individual and the employer' (National Centre for Work Based Learning Partnership, 1996, p.2).

The aims of the Work Based Studies Set are

1. to establish work based learning studies as a subject in its own right
2. to establish work based learning studies as a key area within the academic provision of Middlesex University
3. to contribute to the attainment of corporate objectives by widening access and building partnerships to utilise accredited learning.

and the objectives are

1. provision of learner centred education
2. the development of individuals who are capable of managing their own learning
3. the development of real partnerships with other providers of accredited learning
4. identification and development of methodologies and theories of work based learning.

(National Centre for Work Based Learning Partnership, 1996, p.2)

The Set includes modules on accreditation for prior and work based learning and on programme planning; the latter being provided at different levels according to the award being sought.

As with other work based learning courses, a tripartite learning agreement is established between the student, the employer and academic staff, and the work itself may be 'exclusively project based or include relevant taught modules' (Middlesex University, 1996, p.17). Assessment is usually 100% coursework, assessed by the academic tutor, but for postgraduate programmes may also include self-evaluation in the form of a reflective essay and an oral presentation which can account for between 20% and 40% of the final marks.

Although this type of work based learning is not as flexible as the transformation model, it offers more support for the students, in so far as they are obliged to take certain modules which will prepare them for the type of work involved. The

programme is also more easily managed by the University once its work based learning modules are in place and work based learning has become a discipline in its own right, as it has at Middlesex. Their pioneering role in this development is reflected in the fact that they established the first chair in work based learning and have also become the National Centre for Work Based Learning Partnership.

The University of Luton are developing a similar programme to Middlesex. After successfully working with a number of companies to produce courses which 'linked academic credit in the form of learning outcomes to competence based standards in the form of NVQs' (Weller, 1994, p.5), in October 1994 Luton introduced a new degree programme leading to B.Sc. awards in a various subjects. The intention was that the 'degree pathways will be modified in order to be achievable largely in the work environment and with minimal attendance at university lectures and workshops' (Weller, 1994, p.5).

Since 1994 the University has validated its work based learning degree programme, and like Middlesex, has introduced a package through which the student can gain credit for prior learning experience. The student's learning programme is negotiated between the student, employer and academic staff, and combines a workplace project with a matched selection from a number of academic modules.

A similar relationship between university and specific employers has been established at Anglia Polytechnic University where the University has worked with the county Social Services department to develop an honours degree course based on 'Accreditation of Social Service Experience and Training'(ASSET), leading to a B.Sc. Social Work for qualified practitioners. The ASSET programme focuses on work based skills, abilities and knowledge which are supplemented by a set of distinct but related training modules which are validated by the University, and it also incorporates a procedure whereby the student can acquire formal academic credit for learning gained through previous experience. (Anglia Polytechnic University, 1996) The University also offers a similar scheme to employees of Ford UK, whereby suitably qualified practising engineers can work towards a work based learning degree in automobile engineering.

Building on an existing 2 year in-service programme, the University of Northumbria at Newcastle has developed a work based learning degree course which 'meets the requirements of the Council for Professions Supplementary to Medicine (CPSM) for state registration of medical laboratory scientific officers (MLSOs)' (Reed & Holmes, 1994, p.1). The in-service course had been taught by part time staff who were working in the field, and they 'played a major part in devising the subject-specific aspects' (Reed & Holmes, 1994, p.3) of the work based learning programme.

The programme itself comprises eight work based learning modules, spread over the first three years of the degree course and culminating in a work based project in the final year. These units are assessed in two ways: firstly by learning outcomes, and secondly by assessment and grading. The learning outcome assessment is based on the student's record of each learning activity, which is verified by the work based tutor, and the grading assessment relates to unit specific assignments, which are marked independently by both the work place and the academic tutors. The nature and content of these assignments is determined in negotiation between the student, employer tutor and university staff, although the work place tutor has a significant input in determining which assignments would best suit the requirements of the student and of the laboratory.

The work based learning courses at Luton, Anglia and Northumbria all reflect a close relationship between the university and particular companies or professional bodies, and are specific to the needs of employees within those areas. A more general, and generic, scheme is the 'Learning in Small Companies' (LISC) project based at the University of Stirling. The University, and two associated colleges have created a number of work based learning programmes leading to qualifications ranging from Scottish National Vocational Qualifications to a post-graduate certificate in 'Small and Medium Enterprise Management' (Seagraves, 1996a, p.1).

Stirling identify the advantages of their approach as

- there is no need to relearn what is already known
- credit can be awarded towards a qualification, so qualifications can be gained in less time

- there is no need to leave work to gain credit for work based learning
 - awareness of what they have already achieved encourages individuals to further personal development
 - motivated staff contribute to company development.
- (Seagraves, 1996b, p.1)

Because its aim was to ‘design flexible schemes of delivery compatible to the needs of employees’ (Seagraves, 1996a, p.1), the project offered traditionally assessed courses to employees, as well as those which were entirely work based. In these, assessment was primarily through presentation of ‘a skills portfolio designed to provide a model for the efficient identification of the core competencies of learners’ (Seagraves, 1996a, p.2). Students on these programmes received support from academic staff and work based mentors and could also be put in touch with learners from other companies for mutual support.

As with the type C courses already discussed, the LISC project experienced some problems with students failing to complete the course because the commitment was incompatible with their work load. The project also recognised the need for serious commitment on the part of the companies, observing that, ‘There is a clear danger that work based learning may be perceived by companies as a quicker and easier method (of training), whereas in some cases it can create greater demands than those of conventional courses’ (Seagraves, 1996a, p.4) and it identified the need for ‘appropriate trained individuals within the workplace who can act as learning advisers, and champion developments at an operational level’ (Seagraves, 1996a, p.4).

The Project also had reservations about the portfolio based assessment, recommending that there was ‘a need to find ways of reducing what appears to some participants to be time consuming and bureaucratic methods of assessment’ (Seagraves, 1996a, p.5), and also that some pre-enrollment guidance for students was essential to ‘judge their ability to be able to reflect on their work and place into context ... the qualifications they are taking’ (Seagraves, 1996a, p.5).

The observations and recommendations from the Executive Summary of the LISC Project serve to highlight some of the problems associated with type C work based

learning programmes which have also been noted by Middlesex, Anglia and Luton, in relation to the problems encountered by employees, and whereas these universities were for the most part working with large companies committed to the principles of work based learning, the LISC project suggested that not all companies, particularly smaller ones, can offer the level of commitment and support which is required if their employees are to become successful students.

Consequently, access to this type of work based learning is by no means universal, and where it exists, not only may the needs of the employee-student be seen as secondary to the needs of the company, but her/his ability to meet those needs through a particular programme of work based learning will depend on the support and opportunities provided by the employer for learning in the workplace. Because of this diversity, and the demands made on the individual learner, such schemes do not seem to provide a useful model for examining the potential of work based learning for promoting autonomy, but rather, like type D programmes, depend for the success on the learner already being autonomous.

For my purposes those programmes which focus on the learner as employee seem likely to be more appropriate vehicles for promoting autonomy, as they do not necessarily require the learner to be autonomous from the outset. In type B programmes, the curriculum framework is controlled by a higher education institution and professional body, the content is designed by the employer and the learner is primarily a full-time student.

This type of work based learning is well established in higher education, particularly in those courses which are validated by a professional body, where the academic qualification also confers permission to practise. The academic content of the course tends to be uniform between institutions, and is often prescribed by the profession, and the work based learning element is similarly directed and assessed in line with professional requirements and standards. Traditionally teaching and librarianship degrees have followed this model of college based study punctuated by blocks of work based learning, although in teaching at least there has recently been a shift towards much more work based learning, where the students spend more than half their time in

a school under the tutelage of a workplace mentor, but still follow a structured professionally approved course, albeit one where specific learning outcomes are more closely related to the needs of the particular school than was previously the case.

Conversely nursing courses have moved in the opposite direction. Where at one time nurses were based in hospitals and acquired their qualifications through a great deal of hands-on experience, interspersed with periods of intense theoretical study, they are increasingly following the 'Project 2000' model, whereby the larger part of the course is college based study with shorter blocks of work based learning.

Although the rationale for such changes in teaching and nursing has more to do with politics and economics than with the growing interest in work based learning as an issue in higher education institutions, this influence is reflected in developments in type B courses in some universities.

The University of Liverpool, for example, has developed its 'Silver Project' which is a programme for undergraduate students in veterinary science. The project was designed in partnership with the veterinary school, professional bodies and the students themselves, and funded by the Royal College of Veterinary Surgeons. It aimed to enhance the learning of students undertaking 'seeing practice', a term used to describe work based learning in veterinary practices, hospitals, laboratories and abattoirs, which built on the animal husbandry placements undertaken during the students' first two years. The project emphasised

- developing student autonomy and responsibility
- planning and negotiating individual learning activities
- creating an active participative learning environment
- introducing formative assessment exercises, producing clear guidance for future development.

(Taylor, 1996a)

The Project acknowledged that 'appreciating and learning to cope with real-life situations as they arise is the essence of what "seeing practice" is all about, with students aware that everything in the work environment can be a resource for learning' (Barnes, 1997, p.1). But while the profession recognises that its distinctive modes of operation can often be learnt more effectively through working alongside experienced

practitioners than through following more structured programmes, it is inevitable that such 'situated learning' will be harder to assess and validate. (The concept of situated learning is discussed in Lave & Wenger, 1991).

However, the Silver Project devised an assessment model which seemed to meet the needs of all three partners; the profession, the University and the students, by regarding the work based learning assessment as formative rather than summative. It was based on 'the student's own learning objectives and on professional judgment of the need for further practice' with the aim of 'providing information both for the student and his/her clinical tutor' (Barnes, 1997, p.2).

Other departments at Liverpool have also demonstrated their commitment to work based learning. The School of Dentistry has doubled the length of its students' placements, and assessment of learning in the workplace is now to be incorporated into the final degree mark, and the Department of Building Engineering is following this example to maximise the potential of the work based learning programme which is already considered by the Chartered Institute of Building to be among the 'outstanding examples of current practice in the UK' (Taylor, 1996b, p.3).

Such developments as these at Liverpool, and the increasing role that work based learning is playing in the attainment of professional qualifications, suggest that higher education institutions are becoming more aware of the value of experiential learning for students other than those following the traditional 'sandwich courses'. However, type B work based learning programmes are, by definition, restricted to those students whose studies are leading towards entry into a particular profession, and must therefore also demonstrate some uniformity in content and outcome.

Even where such courses have as an explicit aim the development of student autonomy and responsibility, as the Silver Project does, they are nevertheless vocational programmes, and meeting the requirements of the professional bodies who will award the licence to practise must ultimately have priority over the student's personal development, for the universities, the employers and the students.

Type A work based learning programmes are similar to type B, but without the involvement of professional bodies. Both are, in Portwood's terms 'transportation' models (Portwood,1993, p.62) with traditional college based learning being moved into the workplace. This model is typified by the traditional sandwich course, which remains the most prevalent form of work based learning engaged in by Higher Education students with some 3061 'sandwich courses' on offer at United Kingdom institutions in 1997 (ECCTIS, 1997).

However, some institutions are now extending the opportunity for work based learning to students other than those following professional or vocational courses, seeing it as a valuable way of consolidating the college based 'learning that' with the 'learning how' that can occur in the workplace, and helping to develop autonomous individuals who have 'learnt that I can'. Introducing into the standard linear degree course work based learning programmes which allow all three types of learning to be assessed for academic credit, can be seen as a bold curriculum development, and one which is worth investigating further in the context of this discussion of the development of autonomy.

One project which adopts this approach is that undertaken on a collaborative basis by Liverpool University, Liverpool John Moores University, and University College Chester (formerly Chester College of Higher Education).

In 1990 these three institutions were selected by the Learning from Experience Trust (LET) to take part in a project investigating work based learning for academic credit. The aim of the project was 'to develop the award of academic credit for work based learning within three year undergraduate, non-vocational, non-sandwich course degrees' (LET, 1993, p.1): an aim which Evans, the Director of the LET, believed had not been attempted before.

Such an innovatory project required clear commitment from the participating institutions, and a project team was established, with representatives from each institution under the direction of Dr. Philomena Alston from University College Chester. Together they formulated a series of objectives for the project:

- to establish academic credit for work based learning in undergraduate degrees

- to provide learning opportunities for students in Higher Education through 'off-campus' learning activities
 - to offer students additional ways of taking charge of their own learning
 - to establish a direct connection between work based learning achievement and its added value for academic progression
 - to strengthen collaboration between employers and Higher Education
 - to enhance the employability of newly qualified graduates.
- (LET, 1993, p.2)

If non-vocational work based learning was to be assessed for academic credit, and count towards a student's final degree mark, it was essential to establish an effective assessment strategy that could be standardised across the three institutions, applied to students on different courses working in a variety of work placements, and have the necessary rigour to satisfy the awarding authorities of its validity. The project team devised a method based on a set of learning outcomes; some of which were fixed, and some negotiated with individual students, tutors and employers, and which were designed to address both formative and summative aspects of assessment.

The first three, standard outcomes were

1. knowledge of what the organisation does
2. understanding of how the organisation achieves its aims with reference to its internal organisation and management
3. understanding of the economic/environmental context and its interaction with the organisation.

The next three outcomes involved more detailed negotiation with the students to enable them to reflect individual circumstances.

4. the acquisition of personal and work based skills
5. the ability to evaluate experiential learning in the light of
 - academic subject knowledge
 - subject knowledge and skills gained directly from the placement
 - knowledge gained from the support programme
 - the students' own independent sources
6. the ability to reflect on and evaluate learning from the placement as a whole.

(LET, 1993, p.4)

These outcomes were to be measured and assessed in four ways, with clear criteria established in each case for the awarding of a particular mark.

- The portfolio would include a progressive record of activities, but would also contain the student's reflections on her/his learning from the initial negotiation on learning outcomes (the learning agreement) to the completion of the placement.
- The presentation would provide an opportunity for the student to develop skills of oral communication and share experience; and this mode of assessment was already established in Higher Education in relation to conventional degree courses.
- The dialogical assessment would be a formalising of the ongoing tripartite discussions between student, tutor and employer in the context of the final assessment.
- The executive summary was to be a concise structured report of the student's own views on her/his learning achievements during the work based learning module.

(adapted from LET, 1993, p.8)

Underpinning the assessment, and the module as a whole, were two elements which were seen as central to its effectiveness; the learning agreement, and the support programme.

The Learning Agreement, based on the required learning outcomes, was the negotiated contract between student, tutor and employer, which formally set down what the student would do during the placement, what s/he would be expected to learn, and what contribution the student, employer and tutor would be expected to make. It made clear to all participants that the learning outcomes were a forecast of what should have been achieved by the end of the placement, and would be used as a basis for the measurement of her/his achievements in the assessment process.

The Support Programme was to be provided by the higher education institution as an ongoing resource for the students, enabling them to share problems and experiences and seek help and advice. It included 'pre-placement induction sessions', where students were introduced to their placement tutor and were helped to address the first three learning outcomes in the early stages of the placement with sessions on such topics as business management, organisation and finance, and socio-economic links with the environment.

Once the placements were underway, students attended sessions which were normally held weekly at the higher education institutions. Here they could share problems and experiences, and through participating in 'action learning sets' could work out strategies to help them cope with or enhance their work based learning experience.

It was agreed that during these weekly sessions staff would work through the principal objectives of the support programme, which were,

- to develop in the student an understanding of self and learning strategies
- to show how students can positively modify their learning style and personal organisation
- to develop communication skills, leading to self-assessment and linking in with the dialogical assessment.

(adapted from LET, 1993, p.6)

Once this structure for work based learning for academic credit had been established and agreed by the three higher education institutions, each one then had to decide how they would introduce the programme into their own curriculum.

Liverpool John Moores University (LJMU) approached the issue in two ways. The University was already operating an integrated credit scheme, and they incorporated a work based learning module into this scheme, which was available to all students whatever their programme of study, but to ensure that they were able to implement the specific requirements of the project they targeted those departments which already incorporated some work experience into their courses, or at least had an interest in the philosophy of work based learning.

Initially sixteen students chose to take the work based learning module - nine of whom were studying media and cultural studies - and the University organised a fortnightly support programme, which included presentations by students, group discussions on issues related to placements and guidance on the presentation of portfolios.

In their progress report (Robertson, 1992) the University identified a problem with the timing of placements and the need to fit in with existing course structures, but recognised that the move to a semester structure and the wider dissemination of work

based learning opportunities which were anticipated outcomes of the change to University status, would address this difficulty, by enabling departments to integrate optional work based learning modules into their subject programmes.

The progress report also highlighted other developments which LJMU had introduced, including a questionnaire, designed jointly with Liverpool University, which asked former work based learning students about the usefulness of that experience in the search for employment and career development. They also produced a revised student handbook, tutor information packs, and employers' guidance notes to ensure that all parties in the enterprise had a common view of the aims and objectives of work based learning.

More recently (1996) the Work Based Learning Forum at the University has produced a Green Paper which provides a clearly articulated University policy on work based learning, which follows closely the philosophy of the LET project. The linch pin of work based learning is the learning agreement, for which,

in conjunction with the employer and the academic supervisor, students negotiate learning outcomes which meet their individual needs for the development of personal and work based skills, which explore the nature and purpose of the workplace, and which relate the academic elements of their degree course to a workplace context. (LJMU Work Based Learning Forum, 1996, p.6)

The Green Paper advocates the development of generic learning outcomes, but emphasises that the learning outcomes must be capable of being demonstrated and assessed within the scope of activities agreed by all three parties. It recommends the establishment of 'appropriate arrangements for the development and support of all staff associated with work based learning' (LJMU Work Based Learning Forum, 1996, p.13), which, it suggests, should be audited, and emphasises that monitoring and review arrangements must involve all three partners, and should be 'located within the established framework for quality assurance at LJMU' (LJMU Work Based Learning Forum, 1996, p.6).

The explicit purpose of the Green Paper is

to promote work based learning as an essential component of all undergraduate programmes [...as...] part of a wider University initiative to enhance Graduate Skills, providing opportunities for students to be fully ready for the world of work when they leave LJMU. In this context, work based learning can be seen as an efficient vehicle for the development of core transferable skills. (LJMU Work Based Learning Forum, 1996, p.1)

This last statement begs the question of what 'core transferable skills' are. Whatever the answer, I believe that in order to be 'fully ready for the world of work', students need more than skills: they need to have developed independence, metacognition, self-actualisation and social awareness - and I also believe that the model of work based learning advocated at LJMU may be as efficient a vehicle for the development of these qualities as it is for the development of core transferable skills.

However, before pursuing this argument further, it is worth looking at the other two institutions involved in the LET project to see how they implemented and developed the model of work based learning it embodies.

Like LJMU, Liverpool University chose to target specific departments to incorporate the Work Based Learning for Academic Credit pilot project into their curriculum. These covered a range of disciplines, and included students studying French, engineering and nursing. Staff from these departments worked with colleagues in the University's Department of Education to 'explore ways in which the quality of the learning experience could be improved for undergraduates engaged in work based learning' (Taylor, 1996b, p.1). Taylor points out that as a civic university in the nineteenth century Liverpool had a tradition of including work based learning in its degree courses, but as the University expanded this practical element gave way to pure research. The LET project provided an opportunity to redress the balance, and reinforce the transfer of knowledge between theory and practice. The University implemented the project in accordance with the aims and objectives established in the Work Based Learning for Academic Credit Dissemination Document (LET, 1993), with learning agreements which set out negotiated learning outcomes for individual students, a support programme, and the four part assessment strategy.

A survey carried out by the University at the end of the pilot phase indicated that 'powerful messages emerged ... regarding the value of WBL' (Taylor, 1996b, p.2). The most important, and the ones that were recognised across all departments, were that:

- the 'climate' of the workplace can prove conducive to active and independent learning
- WBL can enhance understanding of academic subjects by linking theory and practice, and can increase motivation for learning. (Taylor, 1996b, p.2)

Since the completion of the LET project, Liverpool has focused on developing procedures and resources to ensure that the potential of work based learning is realised, particularly with regard to encouraging independent learning. They recognise that for this to happen,

- Departments, in active collaboration with placement providers, must be able to articulate the range and potential of the work based learning to be undertaken.
- Attempts at providing detailed prescriptions for work based learning must be avoided.
- Learner dependence must be minimised.
- Learning experiences on placement should foster explanations and active participation on the part of students. (Taylor, 1996b, p.2)

The University also identified a number of problems with assessment, and concluded that 'judging and assessment must be incorporated in ways which reduce competitiveness, focus on reflection and integration of experience and which relate to personal learning objectives' (Taylor, 1996b, p.3).

Several of the departments which took part in the initial project have gone on to develop WBLFAC as an integral part of their curriculum. The Department of Education provides a support programme, based on the LET model, to prepare Modern Foreign Language teaching assistants for their year abroad, the School of Dentistry has doubled the length of its placement, and incorporates assessment based on Learning in the Workplace in the final degree mark, and the Department of Veterinary Science has developed the 'Silver Project', discussed earlier. As at LJMU, the developments at Liverpool have focused on particular departments and subjects,

and in some of those cases, where professional bodies are also involved, work based learning has become a central part of the degree course.

The third institution involved in the LET project, Chester College of Higher Education (now University College, Chester), had included a compulsory work based learning module for students taking a BA (Ordinary) degree a decade before the inception of the LET project, and was therefore well placed to introduce WBLFAC on a broader front than the other two larger, institutions, which focused on particular departments.

The College had been operating its compulsory 4 week work based learning programme as part of their BA degree course since 1982, with a view to enhancing the employability of the students and assisting the transition from undergraduate student to graduate employee. This philosophy continued to underlie the implementation of the national project when the Extended Work Based Learning for Academic Credit module was introduced in 1990 (Alston and Major, 1995, p.1).

Initially some students and tutors were reluctant to take part in the project: the students felt that the innovatory nature of the project presented a risk to their education if its outcomes did not match expectations, and the tutors were unconvinced of the academic validity of the award being offered. However, by distributing information leaflets and holding discussions about the project, the staff who were convinced of its value recruited 15 students to take part in the first year, 1991/92, and 25 in the following year.

This two year pilot was sufficiently successful for the College to agree to extend the project and fund it themselves, and experience gained during the pilot phase 'influenced the design of both the four week (WBL) and the eight week (EWBL) modules which were now submitted to the relevant college committees for validation' (Alston and Major, 1995, p.3).

Initially the 4 week module was assessed on a simple pass/fail basis, but in order to maintain the principles of work based learning, and to provide a greater degree of quality control, assessment procedures were changed to reflect those for the 8 week

module. The 4 week students were assessed on four learning outcomes, as opposed to six for the 8 week students, by means of a dialogical assessment and a portfolio, whereas those taking the 8 week module were also assessed on an oral presentation . The introduction of accreditation for the compulsory four week work based learning module, combined with an intensive programme of staff training, meant that in 1995, 418 students were undertaking work placements for academic credit (Alston and Major, 1995, p.1).

Like Liverpool University and LJMU, University College Chester recognised the importance of the support programme that had been introduced in the original LET project, and a weekly support session was built into the EWBL programme. Each Friday students on placement returned to college to discuss their experiences and any problems with each other and with their tutors. They also attended workshop sessions on topics such as self-assessment and goal setting, action planning, communication skills, and learning styles, which were intended to help the students at a practical level, and also to facilitate the reflective analysis which was a feature of the portfolio.

University College Chester saw the compulsory work based learning module as a common link between departments. It was also a way to offer a common learning philosophy across all departments and subjects, giving students the opportunity to take responsibility for their own learning, to transfer theory into practice and vice versa, to reflect on and take part in assessing their own learning, and to develop the capacity of autonomy.

On a wider front, work based learning was seen as making an important contribution to the mission and purposes of the college as a whole, and in particular to its aim

to collaborate with employers of graduates in the public, private and voluntary sectors, within the European Community and elsewhere in preparing all students to make a positive contribution in the social and economic context in which they are employed, or hope to work.
(Chester College of Higher Education, Quality Assurance Handbook Section 1, quoted in Alston & Major, 1995 p.4)

Like the other Higher Education institutions involved in the LET project, Chester depended for the success of its programme on collaboration and commitment from a

network of employers and industries. However, unlike LJMU, which already had such a network to support sandwich courses, and Liverpool University which had established research partnerships with industry, Chester's links were established with the sole purpose of offering students work based learning experience. As the Principal observed,

The college has spent ten years establishing a network of over 400 employers who are prepared to help students - a remarkable development in an institution that does not specialise in training for commerce or industry. (Binks, 1993)

Those employers who were familiar with the earlier WBL module found the transition to WBLFAC straightforward, and demonstrated a positive attitude towards the increased involvement with higher education, both in negotiating and assessing individual student learning agreements and in the wider context of curriculum development (Alston and Major, 1995, p.11).

One of the most interesting developments at Chester was the way in which it built on existing links with America to extend the opportunities available to students. Since the early 1990s the college had operated an exchange scheme with Alverno College in Milwaukee, whereby students from Chester could live on the Alverno campus and undertake a work based learning placement in Milwaukee, while Alverno students could come to Chester for their 'Off Campus Experiential Learning' (OCEL). The exchange was facilitated by the fact that the aims and implementation of OCEL in Alverno were very similar to those of WBLFAC at Chester.

Alverno College is a liberal arts college for women, which established an OCEL department in 1971. The College's mission is to build a learning community (Thanos, 1997) and more explicitly to teach for eight abilities: Communication, Analysis, Problem Solving, Valuing in Decision Making, Social Interaction, Global Perspectives, Effective Citizenship, and Aesthetic Responsiveness (Grantz and Thanos, 1996, p.11). The OCEL Department contributes to this by providing an internship programme which is a compulsory element for all majors. Students undertake at least one OCEL internship of six weeks or longer: those studying for a double major have an internship

related to each of their subjects, and at the end of the placement the student is assessed and given academic credit by the relevant subject department.

Placements are chosen to offer an environment in which the student can develop professionally, academically and personally. She can test out career options, but the work that is undertaken on site must be of a professional nature and 'must relate to the learning outcomes of the discipline department that is granting her credit' (Thanos, 1997). The OCEL Committee, comprising faculty representatives from the different disciplines, representatives from the Office of Career Development and administrative staff from the OCEL Department, oversees all internships and the OCEL Department serves as a liaison between students, faculty and organisations. The Committee also has a wider brief, to

- Ensure quality in all the college's experiential learning programs:
 - conceptualize the role and developmental nature of experiential learning;
 - promote the coordination of experiential learning programs and the integration of experiential learning into the total curriculum;
 - develop procedures and policies for experiential learning;
 - collaborate with other college committees as appropriate to further implement experiential learning strategies
- Train faculty and site mentors as appropriate in order to maintain quality of programs.
- Explore, develop, and refine theoretical frameworks which examine the relationship between learning, experience, and student development:
 - establish and maintain relationships with national and regional associations concerned with experiential learning;
 - disseminate theoretical insights and practical applications to the college as a whole and to external groups and individuals. (Grantz & Thanos, 1996, p.10)

Like University College Chester, Alverno College emphasises the importance of providing support for students during their internship. All students take a compulsory General Studies course which includes Science, Psychology, Social Science, Art and Humanities, and this prepares them for their internship in so far as they 'develop the ability to look at multiple perspectives through and across these various subject disciplines' (Grantz & Thanos, 1996, p.11). During their first two years at College the

students are also encouraged to take responsibility for their own learning and develop 'increasing sophistication' in this area (Grantz & Thanos, 1996, p.11), and they are also given advice and support in their choice of placement by the OCEL Department.

While they are undertaking the internship the students are monitored by the faculty who will award the credit, either in seminars or through individual meetings with a faculty representative. These seminars, or meetings, perform three functions: firstly they provide a forum for students to discuss their experiences and any problems, and also to rehearse possible responses to various situations which the tutor describes, based on previous students' experiences and involving 'conflict resolution, perspective taking and valuing' (Grantz & Thanos, 1996, p.11). The students are encouraged to consider the issues from different perspectives, to prepare them to deal more effectively with similar situations in their own workplace. They are also required to reflect on their own experiences, to provide 'a basis for change and to facilitate professional and intellectual growth' (Grantz & Thanos, 1996, p.27).

Secondly, the function of the seminars is to monitor the students' progress during the course of their internship. For those participating in their first internship there is an interdisciplinary seminar, taught by two faculty members from different disciplines: seminars to monitor the second internship are taught by the particular departments for whom a second internship is a requirement. Thirdly, the seminars are used as part of the assessment process, as attendance at the seminars and completion of all assignments is a condition of the awarding of academic credit.

The tripartite nature of the internship programme is reinforced by the fact that the student's goals for the placement are identified by the workplace mentor, and a consensus is arrived at, with the student, about what is to be accomplished. This then provides the basis for the mid-term evaluation. In the monitoring seminars the students are asked to articulate their outcomes as they relate to their respective majors, so that the faculty members can monitor their goals and facilitate them.

The mid-term and final evaluations are undertaken by the workplace mentor, who determines how well the student has shown her understanding of the organisation, and

the student undertakes a self-assessment. The College recommends that these activities are collaborative between student and mentor, particularly at mid-term when it provides an opportunity to identify any problem areas. As part of the final assessment the student is expected to write a

statement of personal responsibility, integrating her understanding of professional behaviours, personal commitment and her own values and ethics to those she observed at her internship site and identified in her research as critical to the standards of professionalism within her discipline. (Grantz and Thanos, 1996, p.27)

She is also expected to give a final oral presentation relating to her off-campus experiences, which is assessed in relation to her major: social science students, for example, would be expected to show an ability to exercise social imagination' (Grantz and Thanos, 1996, p.11). The seminar teacher will then use the evidence from all of these, together with the mentor's final evaluation of how well the student met her original workplace goals, and evidence of the outcomes, to determine the level of academic credit awarded.

This assessment strategy is similar to that used by University College, Chester, where three marked components provide the evidence on which the tutor bases the student's overall grade for academic credit: oral presentation by the student; a dialogical assessment involving the student, the employer and the tutor, and a written portfolio.

Chester EWBL students are required to make two oral presentations. The first is part of the formative assessment process, and occurs after about three weeks, when the student reports to peers and tutors, mainly on organisational aspects of the workplace. The other, as at Alverno, comes at the end of the placement and relates to the specific task/s the student has undertaken.

The dialogical assessment also has both formative and summative aspects, with the student, the tutor and the employer meeting both during, and at the end of the placement, to discuss and evaluate the student's progress in relation to the negotiated learning outcomes, and to agree on a final mark which will contribute to the student's overall academic award.

Where Alverno College requires written assignments and a 'statement of responsibility' from its students, the written component in Chester's assessment covers similar ground but in the form of a single portfolio. Originally University College Chester did require two separately assessed written outcomes; a portfolio and an Executive Summary in which the student gave a concise report of her/his learning achievements during the placement, but when it was pointed out by an external examiner that the Executive Summary was 'effectively a précis of the portfolio and added little to it' (White, 1992, p.2), the College followed his recommendation and subsumed it into the Portfolio.

In the Portfolio the student is required to maintain a record of her/his activities and to reflect on what has been learnt in relation to each of the Learning Outcomes negotiated in the initial Learning Agreement. The grading criteria for assessment of the portfolio indicate the value that is attached to the student's ability to reflect analytically on her/his experience. A good honours mark would be awarded to a student whose portfolio includes 'reflection on, and monitoring of, own learning', 'articulation of own learning with reference to a wide range of theories' and who 'demonstrates insight into the process of learning from experience', and even for a simple pass grade the student must have made 'some attempt to articulate reflections on own learning that has resulted from the placement' (Alston, 1991).

In keeping with the philosophy of the LET project, University College Chester believes that 'it is the process of learning that is considered important rather than whether particular tasks were completed satisfactorily' (Alston, 1992). Nevertheless, each student begins her/his placement with an agreed set of learning outcomes, which are the result of negotiations between the student, the tutor and the employer. Some of these are common to all students: investigating the organisational structure of their placement, for example, but others are specific to the individual and her/his placement, and reflect the student's own perceived learning needs as well as any requirements the employer may have. The individual nature of the Learning Agreement is intended to encourage the students to be self-directed and to take responsibility for achieving their Learning Outcomes, but it is also recognised that students cannot be expected to take such responsibility without support from both tutor and employer. All three partners

are ultimately 'responsible for maximizing the learning potential of the placement and developing the context for learning' (Alston, 1992).

As at Alverno, the Learning Agreement is used to enable the student to monitor her/his progress towards achieving the outcomes, and also provides a convenient framework for reflection on the learning process itself and for self-evaluation. In conjunction with the portfolio it also provides an external assessor with a clear picture of the student's experience and what s/he has learnt from it.

The model of work based learning which is implemented at University College Chester focuses on personal as much as on academic or vocational development. It creates a supportive framework within which the student is encouraged to take responsibility for achieving her/his self-determined learning outcomes, and it is assessed using strategies which are designed to demonstrate the degree to which the student has internalised the learning experience. For all these reasons University College Chester appeared to be an appropriate institution within which I could investigate the potential benefits of work based learning for academic credit as a vehicle for promoting autonomy.

4



LEARNING FROM EXPERIENCE

*What can we reason, but from what we know?
Of Man what see we, but his station here,
From which to reason, or to which refer?
ALEXANDER POPE (An Essay on Man, Epistle I)*

In previous chapters I discussed a range of theories and ideas in order to arrive at an understanding of concepts such as autonomy, independence and creativity, and considered their relevance for education and employment at the end of the twentieth century. This involved a retrospective look at the role of work experience in higher education, tracing the development of approaches to work based learning for academic credit.

From this, it emerged that the development of qualities that I deem to be attributes of autonomy is considered to be an important outcome for students undertaking work based learning in higher education. These qualities fall into four broad categories:

- **Independence**: demonstrated by self-motivation, self-reliance and commitment.
- **Metacognition**: demonstrated by adaptability, versatility, creativity, problem finding and solving and transfer of skills and knowledge.
- **Self-Actualisation**: demonstrated by self-knowledge, self-confidence, self-esteem, and self-assessment.
- **Social Awareness**: demonstrated by responsibility, co-operation, toleration and understanding.

In this chapter I focus on the practice of work based learning, looking for evidence of autonomy in the experience of a small group of higher education students who opted to

undertake an eight week module of work-based learning for academic credit as part of their degree course in 1994.

The evidence of the students' experience which was available to me came from a number of sources: discussions with the students themselves; a series of questionnaires, completed before, during and after the module; and the portfolios of work which the students prepared for college assessment. Unless otherwise identified, where I have quoted the students' own words the quotes come from either the portfolio [P], the post-placement questionnaire [Q1], or the retrospective questionnaire [Q2]. For each student I describe her experience during the work based learning module as it is presented through this evidence, focusing on the development of the four characteristics of autonomy, and then summarise the evidence under the headings of these characteristics.

In this preliminary investigation I have considered evidence from four students, who represent the variety of experience in the group.

- Janet was a mature student, profoundly hearing impaired, who had worked with the deaf in the voluntary and private sectors before coming to college. For her placement she chose to work with deaf students in the public sector.
- Sara had entered college directly from sixth form college and had no experience of the world of work. Her placement was with the local authority environment department.
- Moira had taken a year out between school and college and worked in a travel agency. Her work placement was in a tourist office.
- Heather was a mature student who had worked in the Health Service for a number of years in a clerical capacity before entering college. For her work experience she chose to undertake a course-related computer project in an establishment she had worked in before.



JANET

Janet undertook her eight week work experience in an adult learning establishment for the hearing impaired, on the campus of an established Further Education College. She is herself hearing impaired, and experiences this as a handicap, depending upon the situation and environment in which she finds herself. She is a capable lip-reader but required a signing interpreter to enable her to participate in group discussions, and in conversation with me she observed that she found this difficult and frustrating.

It is hardly surprising, therefore, that communication recurs throughout this student's portfolio. The quality of communication had a significant effect on her experience of her placement and it is an issue which is central to any discussion of her autonomous development. Janet's ideas about communication also represent a significant aspect of her psychological development, for in her portfolio she acknowledged that signing was not wrong and that for her, or any other deaf person, to use hand language was an acceptable method of communication. For her, it was part of her culture and, as she admitted, 'part of me'[P]. The significance of this admission lies in the fact that during her time as a pupil at a special school signing was positively discouraged, on the grounds that signing imposes an additional handicap and may also stigmatise the hearing impaired. She notes in her portfolio that because 'I did not want to cause trouble I did what I was told and used oral communication'[P], which she believed would cause the teachers to respect her more.

In her work placement she had to communicate at all levels with both the hearing and the hearing impaired, either directly or through an interpreter. She had to be able to demonstrate her feelings, make known her intentions and openly express her thoughts and ideas, but above all she had to learn to understand and interpret other people's experiences and intentions. Consequently, she found that, 'going from one person to another it became necessary to adapt to their level of communication or to meet [them] halfway.'[P]

In her retrospective questionnaire she was asked whether she felt her communication skills had improved as a result of the placement, and indicated that there had been only moderate improvement, observing that she 'knew how to communicate with deaf

people at all levels'[Q2] and that she 'had already developed skills in effective communication from previous jobs' [Q2]. Her portfolio evidence, however, indicates that when she was making a video of discussions with deaf students, she found communication with them surprisingly difficult, and she had to think quickly to keep the interview flowing. When her questions were misunderstood or ignored, she had to think how to reword the question, and, she observed, 'the more deaf people I talked to the more I became aware how quickly I needed to adapt my language content'[P]. She realised that it was necessary to use any means at her disposal to communicate her own needs, and to understand those of the students. As part of this adaptation she realised that there was no problem about using signing, but that her previous experience of being discouraged and even forbidden to use sign (at school and at home) had made her 'react too sensitively to the teachers ... who also forbad signing.'[P]

As a result of working with the students, Janet became determined to overcome the restrictions about signing that had been imposed on her and which had obviously had a profound effect on her development, and she was able to address positively the problems this caused her. For example, when she was faced with the situation of having to communicate with teachers of the deaf who she knew held 'strong beliefs in using oral communication', she was able to 'tackle [the] problem face on' and 'feel free to use hand movements whilst talking.'[P]

Her experiences as a deaf person in higher education enabled her to make sense of the problems she encountered and to seek solutions for her needs, and the work based learning project gave her the opportunity to share her experience with other hearing impaired people who were about to take a similar educational direction.

In the course of her own academic studies she felt that 'deaf people's inner needs were being denied them' [P] and that this had an effect on their confidence. She also believed that 'deaf people have gaps in their knowledge and a limited vocabulary'[P], and that this impairs their cognitive development. She included herself in this statement, and in discussion with her I did find that she had more difficulty grasping concepts framed in abstract terms than in understanding concrete ideas. Also, she suggested that although she could relate to hearing impaired students and could 'sense what a deaf person was

trying to say', she felt that she 'did not have the vocabulary to express the true meaning'[P] to others. However, this situation improved during the course of her work experience.

From the outset Janet was fully committed to the work based learning philosophy, and believed that the eight week work placement would help her to express her thoughts and feelings on a one-to-one basis. She also felt that it would give her the opportunity to work on equal terms with her fellow-students, whilst at the same time helping students and staff in educational establishments to understand some of the difficulties encountered by handicapped students, and particularly the hearing impaired. She hoped that her placement with the County Service for the Hearing Impaired would 'give her an insight into the public sector and support services for the deaf in education'[P], and also help her to decide if this was an area in which she would like to pursue her career.

It was agreed during the preliminary tripartite discussions between the student, her tutor and her work placement employer, that Janet would research the needs and aspirations of deaf sixth form students who were preparing to go on to further or higher education, as well as some students who were already in further education. The research would take the form of a series of in-depth interviews which would be recorded on video. The videos, focusing on the 'fears, hope and expectations'[P] of deaf students going on to further education, could then be used to create awareness and understanding among lecturers in the further and higher education sectors, and also be used by the students themselves when making applications for grants from Enterprise. For Janet herself the videos would be 'a record of my course, sponsored by Enterprise', 'a profile of me as a deaf student at Chester' and above all 'an insight into what it is like to be deaf.'[P]

For a student who maintains she has a problem with communication, Janet gives a remarkably graphic statement of her problem:

Before my placement experience my thoughts were often "cloudy" because I was struggling to guess at what words were being said. Additionally I actually had to struggle to make sense of what these "guessed" words meant. I used to get frustrated because I understood only one word in ten, which meant I had no chance to absorb ideas and concepts before the

conversation or lecture moved on. Reflection rarely occurred because I was always “behind” and often lost! [P]

She determined to make a success of the work based learning module by addressing this difficulty from the beginning, and recognised the need to plan and ‘think two steps ahead’ during discussions or meetings. She found that if she took charge of the proceedings by having prepared questions, she became more aware of the content of the meeting, and even if she had to adapt or discard some of her prepared questions she could use the listening skills she had practised in the supporting programme. The evidence from her portfolio suggests that this positive approach was sustained throughout the placement.

Not only did Janet plan ahead for meetings and discussions, but she also undertook a considerable amount of preparation in advance of her placement. She visited the workplace twice, and met students and staff to explain the philosophy behind the work based learning module, and the fact that she had opted for it in the belief that she could help highlight the problems of deaf people entering higher education. She also sent out a letter to schools, careers advisers, and the Director of Cheshire’s Deaf Society, so that replies were waiting for her when she started her placement and she was able to begin making appointments for interviews immediately.

She recognised that effective preparation was essential, if she was to fulfill her learning agreement: ‘I appreciated that if I plan well, things are more likely to work out the way you wanted to’ (sic). For example, she notes that ‘right from the start of my work schedule I concentrated on setting up my diary for the month ahead, making sure that I covered as many video interviews as possible to leave time for editing later on’[P]. She also had the foresight to book the necessary equipment in advance, and to practise with it at home, so that she felt at ease using it and would not transfer any anxiety to the interviewees.

Clearly Janet acknowledged a responsibility to the students she met during her placement, as is shown in her determination to work with them efficiently and effectively. She was aware that in order to do this she had to feel confident in her own

role, and felt that careful preparation was a way to achieve this. Even at the beginning of the placement she was demonstrating aspects of autonomy in the insight she had into her own uncertainty and how it might affect others, and the positive steps she took to deal with it.

It would appear that Janet was helped towards autonomy by her learning agreement which identified for her 'the need to develop new skills and in particular to improve time management so that I could plan, produce and deliver the video within the two month's placement'[P]. However, she also recognised and made the most of the flexibility in her job description, which allowed her the freedom to devise for herself ways of carrying out particular tasks, and required initiative from her 'to perform tasks that had never been done before.' She saw this as 'an extremely valuable way of developing skills.'[P]

When she came to reflect on her placement, Janet identified a definite improvement in her problem solving abilities, and was quite clear about the reasons for this: she

learnt to believe in myself and doing what I think is right, not worrying about what other people think. I reflect on things I do now, more often than I used to and that helps when you think about how to improve the situation or solve problems. [Q2]

The portfolio evidence shows that this confident attitude developed during the work experience, partly because the early tripartite discussions established a good working relationship between the student, the tutor and the employer, which provided valuable reassurance to Janet as she undertook a difficult and demanding project. In conversation she reported that the pre-placement induction was important to her, providing reassurance that she would not be isolated and that there would always be someone available to give support and help her with communication and interpreting, but also because it ensured that her employer was briefed on the rationale for work based learning and her role in the project.

When she came to the placement, Janet had no difficulties fitting in to the working environment. Responding to a question about this she replied 'No - nothing at all. We all felt equal'[Q1]. Also, the close links and lines of communication she had established

with her tutor and employer during the introductory sessions meant that she was able to ask them for help, and she acknowledged that her tutor ‘helped tremendously with interpreting etc.’ [Q1]

Janet acknowledged that she was able to express her own opinions and develop her own ideas, and also that she ‘identified tasks myself’. She also noted that she ‘didn’t need supervision. I bounced my ideas off my employer so that could be part of “supervision”’[Q1]. Her portfolio evidence demonstrates that the supportive framework of the work based learning module, together with her commitment to the aims of her project enabled her to exercise a remarkable degree of initiative in extending the remit of her learning agreement. She identified the importance of making links, for example to give the careers adviser access to training and deaf awareness courses; she proposed the establishment of a subcommittee of the National Association for Tertiary Education for Deaf People (NATED) for students in higher education, and she arranged for one of the students she met, who was waiting to take up a place at Chester College, to make a preliminary visit and meet some of the staff. ‘We did this and I realised how much confidence it gave her’[P], she reported. Such positive outcomes clearly increased Janet’s motivation: as she acknowledges in her portfolio, ‘this experiential work placement has become an excellent way of building up contacts, particularly in an unknown field’.

The sense of responsibility that she felt towards the project itself and those who helped her make a success of it prompted her to ‘extend the focus of the placement to include setting up a social evening so that they could all meet each other and also be formally thanked for their contribution’[P]. The initiative that she demonstrated in extending the remit of her learning agreement supports Janet’s own assessment of herself as self-reliant, ‘because I’ve always been the one who takes the initiative and usually rely on myself to make things happen.’[Q2]

The extent of Janet’s motivation is illustrated by the fact that not only was she enthusiastic about the challenging and innovative parts of her work, observing that ‘the editing of video took longer so I worked overtime’ [Q1], but she also adopted a positive attitude towards the mundane aspects of the job. She recognised that they

were 'an essential part of getting things done', and that she had to 'budget time' to include both the creative and the mundane, and even went so far as to create a virtue out of necessity, finding the routine work 'rather relaxing as it gave me some personal space which allowed me to switch off from people and to introspect.' [P]

The work placement not only gave Janet the opportunity to learn from new experiences, but it also encouraged her to reflect on her own learning strategies: she maintained that it gave her a 'completely new view' of how she learned. 'Now I know that I am a "concrete" thinker and that I struggle with abstract conceptualisation' [P]. She goes on to support this insight with theoretical knowledge acquired during the support programme and cites from her reading the observation that deaf people are more concrete and less abstract cognitively than hearing people. This insight into her own strengths and weaknesses was not wasted on Janet, who observed some time after she had completed the work based learning module, that she must 'try to develop this part of learning and thinking if I am to get full benefit from my degree course.' [Q2]

Janet recognised that during the work based learning module she had developed the ability to evaluate her own experiences, observing that 'seeing things in reality serves to make theory clearer' [Q2] and because when things 'actually happen before your own eyes it really does provoke your thoughts and reflection' [Q2]. There is further evidence of this in her portfolio, where she noted that the evidence from the recorded interviews with deaf students confirmed the belief she held about her own disadvantage, observing that

deaf people, particularly those who learn to speak fairly late in childhood rarely develop a full vocabulary. Inevitably this affects their cognitions ... understanding of concepts and their explanation of feelings and thoughts. If a word does not exist then nor does the concept. [P]

It might be assumed that someone who acknowledged difficulties in expressing thoughts and feelings would find it difficult to be creative or autonomous, and Janet appears to have held this assumption about herself when she comments 'I never dreamt the possibility of being creative if I had not done the video work as part of my experiential learning.' [P]

Through the work based learning module she was able to overcome both the negative perception of herself as not creative, and the impediments to creativity that she identifies as facing deaf people, to the extent that when asked if she had been creative during her placement she responded 'Yes, all the time' and indicated that she had gone beyond the basic learning agreement to add 'extra dimensions to the goals.'[Q1]

Throughout her portfolio Janet acknowledges the value of the tripartite strategy, whereby student, tutor and employer jointly agree the learning outcomes, in helping her to take full advantage of her work experience, and although she found some parts of the support programme 'a waste of time as I was standing idle'[Q1], and some of the sessions 'rather slack and slow'[Q1], these were mostly group discussion sessions of the kind Janet found difficult, and in fact she said that she particularly enjoyed the morning sessions of support, which were designed to meet individual students' needs [Q1].

In her portfolio she recognises the importance of the support programme in enabling her to function effectively in the placement, observing that it 'enabled me to make the link with my experiential learning by reflecting on my initial ideas before putting them into practice'[P]. The fact that she appreciated the relevance of the supporting programme, is demonstrated in her observation that her employer might have benefited from 'more information on [the] supporting programme and how it links with the placement'[Q1], but any lack in this area did not adversely affect Janet's own experience, since she was able to observe that her placement experience was 'perfect for me.'[Q1]

The supportive environment of the placement enabled Janet to use and develop the skills and knowledge gained during her course, and she was herself aware of the importance of transfer of skills between areas. When asked whether she felt the placement was a useful part of her course she responded with an emphatic 'Yes!!!! used my reflective thoughts - linking theory and practice.'[Q1]

In her portfolio she observes that before the placement began she had very simplistic notions of the distinctions between theory and practice, believing that no great

distinction existed. However, because she kept an accurate diary as an aid to producing her portfolio, 'putting everything from my mind on to paper', she came to recognise the difference, and this, she believed, was 'one of the most efficient ways of evaluating my experiential learning'.

Janet was able to relate her theoretical knowledge of subjects such as social policy, economics and politics to the reality of her work placement. She notes

I gained a greater understanding how the government politics effect (sic) the educational services for Deaf individuals, ... how the numbers of Deaf children being sent to residential schools have fallen; uncertainties over Further Education Funding Council and the challenge facing schools becoming budget holders.[P]

Similarly, having studied psychology and social psychology at college she was able to make sense of group and individual activities. She found it 'intriguing' to consider why deaf students grouped themselves together during coffee and lunch breaks, and noted 'their varying levels of language skills and their different educational achievements'[P]. She describes in some detail a visit to a Headmistress where she felt very welcome, and referred to her theoretical knowledge of non-verbal communication to help explain the range of factors that created her own feelings of being relaxed in this particular office. She observes that 'it was a really interesting session just simply absorbing all these non-verbal clues ...'[P]

This section of the portfolio highlights the intelligent and motivated approach which Janet adopted towards her placement. During the course of the placement she came to realise the contribution that theory and practice make towards each other, observing that 'theory illuminates the why; what; where and how of practice'[P]. Such illumination was clearly motivating to this student who found it 'intriguing' and 'interesting' to apply her theoretical knowledge to a real situation, and in acknowledging the motivational force of intellectual curiosity she demonstrates her developing autonomy.

Janet also reveals characteristics of autonomy in her final evaluation of the work based learning module. She refers again to its capacity to motivate, observing that she 'found

the whole experiential learning very enjoyable and stimulating', but she also recognises the importance of being responsible for her own progress, and being responsible to those who were helping her:

I think the value of it depends on what you put into it ... being prepared to share and discuss problems I believe that the WBL programme works if you are prepared to be honest with yourself and others, both at work and in the supporting programme.[P]

This examination of Janet's evidence reveals a student who is aware of the need to take personal control of the project; who has the ability to rationalise, plan and introduce novel ideas, and who is also willing to consider the needs and ideas of others in the interest of achieving her goals. She acknowledges the value of the support group, and particularly the help she received from, and gave to her tutor/translator who 'gave me time to think and reflect (and improved her signing skills!)'[P], and also looks beyond the academic assessment of the portfolio when she hopes that her work might 'give any interested student the opportunity to gain an insight into what this type of experiential learning entails.'[P]

As an insight into what this type of learning does entail, and as a demonstration of one individual's autonomous development, the following observation from Janet's portfolio serves as evidence:

Experiential learning is one of the most efficient ways of seeing for yourself how things happen in practice and whether theories can work in reality. Viewing things from the academic standpoint can only make a minor impression on your mind but when it actually happens before your own eyes it really does provoke your own thoughts and reflection. Surely we all perceive information from lectures differently and have different ideas how it can be applied in practice. In reality, however, there are other stimuli or conditions that may reform one's ideas. For example; realising that only some ideas will work in practice due to financial constraints. However, seeing things in reality serves to make theory clearer. [P]

Having considered the evidence of Janet's experience, it is clear that in it there are indications that work based learning can be a useful vehicle for seeing the theory of what underpins autonomous behaviour exemplified in practice. It is possible to identify where this student has demonstrated independence, metacognition, self-actualization

and a sense of social responsibility, and in some areas to perceive how these qualities have developed.

Independence

There is considerable evidence to show that Janet possessed qualities which enabled her to operate independently. Not least of these is the fact that she was fully committed to the work based learning module from the outset, believing that it would allow her to demonstrate her capabilities in an environment where her deafness did not present the same degree of handicap as it did in the academic setting. She saw mundane activities as part of the learning experience, and was prepared to work overtime to achieve her goals.

The degree of commitment which is a feature of responsible autonomy can sometimes be demonstrated by a willingness to accept help, and not cling to one's independence, if this will improve the chances of attaining a successful outcome, and Janet showed that she was able to do this. She acknowledged the value of the support she received from tutor and employer, and the fact that her realistic and achievable learning agreement was the result of teamwork, and throughout her evidence she recognises the value of the Supporting Programme in helping her to make the connection between theory and practice.

Motivation may arise from commitment, and in turn strengthen that commitment. In Janet's case, she acknowledges that she was motivated by her increasing insight into the connection between theory and practice, but there is also evidence of motivation in the way she planned ahead for her placement, prepared a diary to enable her to organise her activities, and prepared thoroughly for those activities that were new to her, such as interviewing and making a video, all of which may also be considered signs of the commitment that arises from being able to function independently. Perhaps the clearest evidence of motivation is the enthusiasm that underlies everything she writes - and which was noted by her employer who reported that Janet had 'approached every aspect of her work with excitement and enthusiasm'¹.

¹ Employer's letter reporting to Janet's College Tutor.

The notion of self-reliance is central to independence, and in one of her questionnaire responses this student observed that she had always been self-reliant, and the work based learning module gave her ample opportunity to demonstrate this effectively. In the first instance she found her own, very suitable placement, and then recognised where her learning agreement was sufficiently flexible to allow her to work out for herself appropriate methods of achieving her goals. She learnt how to take control of discussions to get from them what she wanted, and she showed initiative in extending the remit of her agreement (introducing a further education student to Chester College, for example).

Metacognition

The level of Janet's metacognitive skills is evident throughout her portfolio and questionnaire responses, in the quality of her own reflection on her work experience, and particularly in the emphasis she places on the transfer of skills. She cites many examples of the way in which she observed theory illuminating practice, including the thoughtful way in which she analysed why she felt comfortable in a particular room where she was talking to a Headteacher, using knowledge gained during the Supporting Programme, and recognises that the work based learning module helped her to develop this ability to reflect. On a more practical level she was also aware that she could use the knowledge gained from her placement to help her organise her subsequent college work.

The way in which she went about designing her video project, preparing for it, adapting to the needs of the deaf students during interviews, and identifying opportunities to make good use of the finished video, indicate that this student was problem finding and problem solving at all stages throughout her placement. She was quite certain that she had been creative, and equally certain that it was only through undertaking this work experience that she was able to realise her creative potential.

The available evidence points to there having been a significant development in those metacognitive skills which contribute to effective autonomy as a result of Janet having undertaken this module, and that this in turn led to increased self-actualisation.

Self-Actualisation

The work based learning assessment process encouraged reflection, which gave her the opportunity to identify her own strengths and weaknesses, but also the nature of the work she was doing, with other deaf students, allowed her to see where her own needs had not been met in the past. She could therefore acknowledge the importance to her of being able to use sign language, for example, which had previously been suppressed because she thought people would respect her more. She acknowledged that she had to prepare herself for unfamiliar situations in order to be able to feel confident about what she was doing, but by recognising that she needed to work at feeling confident, and making the necessary effort, she developed confidence. As one of her questionnaire responses states, her work experience gave her the opportunity 'to practise saying "I'm good"'. Again, the evidence for the positive effect that the work based learning module had on Janet's self-confidence and self-esteem comes through in everything she writes; both in what she says, and in the confident way she says it.

Social Awareness

As was stated at the outset, concern with communication is evident throughout this student's portfolio and questionnaire responses, and this in itself suggests that she has a high level of social awareness. She refers to the excellent relationship she had with her tutor and her employer, and how she worked on equal terms with colleagues in her placement. She recognised the need to adapt to working in the public sector, and to communicate appropriately with individuals and organisations. Her account of her interaction with the deaf students shows a genuine interest in their welfare, and a high level of empathy, which was enhanced by the development in her own self-awareness. The areas in which she extended the remit of her learning agreement, organising the visit to Chester College, and arranging a social gathering as a thankyou to the people she had worked with, for example, all testify to a well-developed sense of social responsibility.

The evidence for development in this area is therefore less than for the other aspects of autonomy, since Janet already possessed many of the qualities which demonstrate social awareness, but she herself felt that she had improved her communication skills, and the insight that the supporting programme gave her into her own, and other

people's behaviour clearly informed the interpersonal skills that she demonstrated during her placement.

Janet clearly gained a great deal from her work experience, not least by being awarded a first class pass mark for the module, but also from the active learning that took place and from the significant gains she made in her ability to function as an autonomous individual.



SARA

This student entered college straight from school and undertook her work based learning placement in the Environment Department of the local Borough Council, where she was based in the pollution control section.

In her portfolio, Sara gives as her reason for undertaking the 8 week work based learning placement that she wanted 'to gain experience of the working world' [P], and she also comments, 'I wanted to learn more about myself and I believed that the supporting programme would provide this,' [P] but the positive attitude suggested by these comments contrasts with the observation in her post-placement questionnaire that what she enjoyed most about the module was 'being away from the college environment.' [Q1]

Sara had selected her own work placement, and had chosen to work in the pollution department. Despite having studied biology she saw this area as one she knew very little about, but wished to learn about, and she added that she 'was interested to discover how pollution is monitored and what can be done to ease the pollution problem.' This positive attitude suggests to me that as she entered on the work based learning module she was well motivated, showed intellectual curiosity and was willing to meet the challenge of working and learning in a new and unfamiliar environment, and therefore indicated that she had the potential for developing autonomy.

However, throughout the portfolio and in the brief responses she provided to the questionnaires, there is evidence that the tripartite arrangements for setting her learning outcomes and establishing the respective roles of her employer, her tutor and herself in helping her to achieve them, did not provide the level or kind of support that Sara needed. When she began the placement all that had been agreed were the general learning goals that were common to all placements, and that she should undertake some specific piece of work. There is no evidence that there was any discussion between herself, her tutor and her employer as to what this work might be and when she started her placement she felt that she 'had no specific task due to the nature of the department.' [P]

It appears that her employer mentor who took part in the initial tripartite arrangements had no knowledge of the work carried out in the pollution department, and was therefore not in a position either to suggest a specific task she might undertake, or even to formulate a framework for a task; nor was he able to help her with the ongoing technical work she was expected to undertake. On the other hand, the person with whom Sara worked in the department had no knowledge of the work based learning philosophy, and therefore did not really know what was expected of her. Nor did Sara regard this person in any sense as a mentor, observing that, 'the person to whom I reported was ... a Technical Assistant but really we were more friends than boss and subordinate' [P]. It was presumably this person, rather than her employer mentor, to whom Sara was referring when she stated in her post-placement questionnaire that she was able to ask her employer for help.

In her observations on the management structure in the placement, Sara commented that 'the management structure of the department has not really affected me directly' [P]. Having no prior experience of the working world, she was perhaps unaware of the indirect influences that management structures in any institution have on employees at all levels, although she did see 'who was responsible to whom and who was respected and listened to'. More importantly she noted that what did affect her was 'the fact that my employer mentor does not really have anything to do with pollution control where I have spent most of my time, as he is in food/general section.' [P]

If the work based learning module support system had been working effectively, Sara's tutor might have been expected to identify this anomaly, and even if unable to arrange for another mentor, s/he should perhaps have been able to compensate with additional tutor support for the student. However, as her questionnaire responses suggested, Sara was no happier with her tutor than she was with her employer mentor. She indicated that she did not feel that the aim of establishing a partnership between student, tutor and employer with shared responsibility for learning had been achieved at all [Q2], suggested that both tutor and employer would have benefited from 'more information about what the placement was about' [Q1], and when asked what she would do differently if she could start the placement again, her response was, 'insist on a different supervisor.' [Q1]

Although the lack of prior planning meant that Sara had no specific task in mind to undertake when she started the placement, she was shown a number of jobs, including using technical equipment to monitor atmospheric pollution and how to collect and process the data, and this became her specific task. It would seem that it was only when Sara was established in this work that she began to benefit from the placement, since she observes 'my placement provided me with an ideal opportunity to learn from experience, but I did not really see this until a few weeks into the placement.' [P]

The first two weeks were spent 'in administration answering phonecalls, etc.', an area which provided her with most of the information she required to complete the general learning outcomes (LOs 1 - 4)². She had no difficulty in meeting these objectives, which were the most clearly defined part of the learning programme, and although the work required little in the way of original thought, it did involve talking to people, both on the phone, 'answering enquiries from the public' and 'going out on calls with colleagues', and some independent research work 'via leaflets and textbooks'.

² Learning Outcomes (LOs)

1. Knowledge of what an organisation does
2. Understanding of how an organisation achieves its aims with reference to its internal organisation and management.
3. Understanding of the economic/environmental context and its interaction with the organisation
4. The acquisition of personal and work-based skills.

Engaging in these activities helped to improve Sara's communication skills, and she recognised this in her retrospective questionnaire response, although her comment focused on the fact that taking the work placement module 'got me talking to lecturers and employers, something I wouldn't otherwise have done'[Q2]. She also felt that she had learned 'the importance of empathy and listening and that it was necessary to accept other people the way they were.'[P]

To judge from her portfolio, Sara seemed to be particularly interested in the psychology of the workplace: the way her colleagues behaved and how she interacted with them, and in this area she was able to make significant use of her academic knowledge of psychology to help her understand both her own and others' behaviour.

I noticed on reflection that I tended to like people who were of similar age, held similar beliefs to me and seemed to like me. I also got closest to the people with whom I spent the most time. These reflections were interesting because in looking at friendship formation, within my course, these ideas ... were all theoretical and here I could see them occurring in practice. [P]

Her theoretical knowledge of group psychology enabled her to recognise as an advantage the fact that the rather exclusive tendency to 'groupthink' [whereby people working closely in a particular field develop a similar mindset which makes them resistant to ideas from outside the group] was not evident in the department, and in fact 'the department seemed to encourage individual thought and action'[P]. She was also able to review her own development from a theoretical perspective, and observed that 'having studied self I found that because of my placement my self-efficacy, self-concept and self-esteem all altered.'[P]

Sara's knowledge of learning theory allowed her to develop her metacognitive skills, as she explicitly acknowledges in her portfolio:

learning something new I have found myself actually asking "How am I learning this?" Being able to look critically at my style of learning has helped me to see some of my strengths and also my weaknesses. [P]

As a result she tried to improve on her perceived shortcomings and 'decided to be more patient and reflective despite these two qualities being out of character!'[P]

This student's awareness of self and others developed as the placement went on. At first she seemed surprised to find that academic theory could be relevant to real situations, but as more and more instances occurred where prior learning informed present tasks and observations, she recognised the value of much that she had learned on the supporting programme, particularly that 'listening was more important than I had realised and harder to do than I had believed'. [P]

Sara recognised that her placement experience had a significant effect on her self-awareness, and also on her self-esteem. As she settled into the department she became 'more aware of the fact that [she] was capable of doing any job assigned to [her]', and felt that she was 'coming out of [her] student role' [P], although there is little in her portfolio to suggest that she was functioning autonomously, and according to her responses to the retrospective questionnaire she felt that her problem solving ability and her skills of self-expression had barely improved at all during the placement.

Given the nature of the field work she was engaged in (monitoring levels of sulphur dioxide) I found it surprising that Sara felt that her academic work in biology had been 'more difficult to relate to my placement' and that the work was only 'vaguely related to modules of my course' [P], particularly when she cites in her portfolio a specific incident when she used her biological knowledge to provide a possible explanation for the low levels of oxygen at a particular site: a more autonomous individual might have developed a specific research task out of this observation. However, she draws a clear distinction between the work of the department, whose 'main aim is to monitor pollution and keep the levels to a safe minimum' and the 'biological perspective', from which 'what seems to be more important is the effect of the pollution on the environment.' [P]

Sara either did not recognise, or did not feel competent enough to develop the potential in her work for a specific project, despite the fact that, according to her retrospective questionnaire, she was 'already very self reliant' [Q2] when she started the placement. She acknowledges that 'one of the most important things that I learned as my placement progressed was that I was responsible for my own learning' [P]. Had she had more guidance or support from either her employer mentor or her tutor she

may have been able to undertake more challenging work than she actually did, but as it was she adopted a somewhat passive and reactive role:

As I had no specific role no-one insisted that I do any major jobs, so I was largely left to my own devices. ...When I saw a need I attempted to help, and I believe that this taught me how to be adaptable.... I realised that a lot of the time colleagues assumed that I was very busy and so did not ask me to do an urgent job, I therefore had to listen out for anyone who seemed to need help. [P]

She appears to have had little guidance, and although she was helped with and instructed in particular tasks, it points to some failure in the system that colleagues could assume she was busy when presumably she was not.

However, because she was working within the framework of a learning agreement, she 'ended up creating tasks for myself so that I would achieve my learning outcomes' [P]; which suggests that the learning outcomes had been agreed without taking account of the nature of the placement. That this was the case, and that Sara was disadvantaged by this situation, is clear from the fact that she decided to '*try* to fit my learning outcomes into the objectives of the organisation' [emphasis added]. She adds that she believed that this was a good idea because it 'helped me to be seen more as a part of the department instead of an "outsider".' [P]

If the tripartite system had functioned effectively when Sara was planning her learning outcomes, they would have been adapted to the objectives of the organisation at the outset, and should have helped both her and her colleagues to feel more at ease with her role. As it was, this student was lacking in self-confidence in the first few weeks of her placement. She observes that she 'found it difficult to accept that [she] had the right to be treated as an equal, having always been in the position of pupil or student'. Presumably it was this perception that prevented her from asking questions, so that she observes that in the course of her placement she 'discovered that it is always better to ask and be enlightened than to carry on reticently with something, only to discover at the end of it all that the whole thing was wrong.' [P]

Recognising that one can learn from one's mistakes is an important step on the road to autonomy, but it requires a self-confident person, or one who can call on others for support, to take advantage of the lesson. Although Sara maintained in her questionnaire response that she could ask her employer for help, the evidence in her portfolio suggests that she did so only rarely, if at all. As a result, Sara's own uncertainties, together with the fact that she did not feel able to rely on support from her employer mentor or from her tutor, resulted in high levels of stress, to the extent that she observes that 'I have had to cope with a lot more stress than I think I would have had if I had not chosen WBL.' However, she recognised that this had improved her stress management techniques, which she identified as 'a very important part of [her] overall learning.' [P]

Other positive outcomes identified by Sara in her portfolio were that she believed herself to be 'a lot more confident' and that her communication skills had 'dramatically improved.' Her 'communication of ideas to colleagues' had improved, and so had her tact. She had 'acquired a lot of technical skills to do with the monitoring of pollution', and although she did not necessarily see this as specifically useful she was aware that 'the acquisition of any new skill helps to improve other related skills'. Her computer skills had 'been given a much needed boost', and also she 'had been made aware of a phenomena which was completely new to me - office politics', which, she observed, meant that in the future 'I will be a lot less naive and better prepared.' [P]

According to Sara herself, through undertaking the work based learning module she had developed in confidence, had improved her interpersonal skills, had developed new technical skills, and recognised that skills are transferable, and had increased her self-knowledge. However, she does not provide any evidence to suggest that she took advantage of the opportunities the placement provided for creative thinking and autonomous learning in relation to her specialist subject of biology.

It is possible, in the light of the evidence available, that the reasons why Sara did not develop greater autonomy were those she herself highlighted: she was 'naive' and ill prepared. The fact that this was her first experience of the world outside school and college meant that it was all the more important that the tripartite system should have

been able to help her with careful and purposeful planning, and with sensitive support. As her post-placement questionnaire suggested, and her portfolio confirmed, both of these were lacking.

However, by considering the four key elements of autonomy in turn, it is possible to find in Sara's evidence some indications that undertaking the work based learning module promoted some development in all of them, and to conclude therefore that work-based learning perhaps succeeded in starting her on the road to autonomy.

Independence

Rather than taking advantage of the opportunity offered by the work based learning module to act independently in a supportive framework, Sara seems to have independence forced upon her because of the inadequate prior planning and absence of guidance from her employer mentor in the workplace. Her lack of direction in the first weeks of the placement illustrates the distinction between independence and autonomy, for whereas this student was showing independence, in, for example, appearing to be busy even when she had no real task to perform, she was certainly not functioning autonomously.

During the first weeks when she worked in administration 'answering phone calls etc.' [P] she was apparently self-reliant and able to undertake some independent research work in order to meet her learning objectives, but as she herself acknowledged, she was used to being self-reliant even before she undertook the work based learning module.

The evidence suggests that what was lacking in this student was motivation, without which independence is of little value, and it was only after a few weeks, when she recognised that the placement was offering her an 'ideal opportunity to learn from experience'[P], that she began to function at all autonomously.

Metacognition

Sara's awareness that she could be responsible for her own learning and that the workplace environment was one in which she could learn, appears to have come partly

through her making the connection between what she had learnt at college, particularly in the area of group psychology, and what she observed around her. The fact that this realisation was new to her is indicated by the surprise implicit in her observation that ‘learning something new I have found myself *actually* asking “how am I learning this?”’[P] (emphasis added).

Self-Actualisation

Just as Sara’s evidence points to a gradual development in her metacognitive skills, so it also suggests that the work based learning module helped to enhance her self-confidence and self-esteem once she accepted that she ‘had the right to be treated as an equal’[P]. The observation in her portfolio that she had ‘discovered’ that it is better to ask questions than to carry on independently down the wrong track, suggests a definite development in self-knowledge and self-confidence, as she was able both to identify her own strengths and weaknesses and to expose her uncertainties to others in order to get the help she needed to achieve her goals.

The fact that she experienced the work based learning as stressful, but also found strategies to cope with the stress, is a further indication that she was moving towards autonomy, demonstrating both self-awareness and self-motivation.

Social Awareness

In recognising the benefits of asking questions, and thereby not being entirely independent, Sara illustrates the fact that effective autonomy needs to be exercised in a social context, and those observations, occurring particularly in her questionnaire responses, which express her dissatisfaction with the support she received from both tutor and employer, suggest that she was aware that she could have been more effective in the workplace if she had had the support she needed.

As it was, the placement taught her about office politics, improved her skills of communication and gave her the opportunity to internalise her theoretical knowledge of group psychology by applying it to observed situations. In all of these areas this student was developing social awareness, and thereby laying the foundations for autonomy.

Therefore although at first sight Sara's placement provided a far less satisfying and worthwhile learning experience than, for example, Janet's, in fact a closer examination of the evidence suggests that she had encountered a range of learning opportunities which contributed to the development of features associated with autonomy. Although her questionnaire responses tended to be rather negative, the reflections in her portfolio highlighted far more positive outcomes, as might be expected in a piece of work intended for assessment. However, far from diminishing the value of the portfolio evidence, the fact that she was obliged to reflect closely on the placement as a learning experience, was possibly the most valuable learning experience of all for Sara. Through this exercise she acknowledged and thereby consolidated the small but significant progress she had made towards autonomy.



MOIRA

At College Moira was studying English with History and as she was concerned that her work experience should be relevant to both these subjects she organised a work based learning placement at the County Tourist Office. Although she did not return a retrospective questionnaire, the evidence available from her portfolio and post-placement questionnaire suggests that this student was highly motivated and determined to take full advantage of the experience. She had very clear ideas about what she wanted to do during her eight week placement, and during the initial tripartite discussions she was instrumental in formulating a number of projects and goals which constituted her learning agreement.

According to her post-placement questionnaire she not only succeeded in meeting these goals and fulfilling the learning agreement but also went beyond the planned activities and produced a number of original pamphlets and documents. It might be expected that such a motivated, independent-minded and determined individual would not necessarily fit easily into a fairly small established organisation, and in the questionnaire she admitted 'there were a few initial teething problems as some didn't take me seriously at first - they soon got over it' [Q1]. However, other responses

suggest that she achieved a good working relationship with her employers and both could and did ask their advice when necessary. It appeared, however, that her relationship with her tutor was less satisfactory. She observed that she could 'not really'[Q1] ask for help from college, suggested that her tutor could have been 'a little more open-minded - less set in academic ways'[Q1], and recognised that a different tutor might have enabled her to benefit even more than she did from undertaking the work based learning module.

During the preliminary tripartite discussions it was agreed that Moira's brief would be to undertake some research for the Tourist Promotion Unit, investigating the development of tourism in Chester over the last two centuries, and a number of smaller assignments were also planned. The method of research and its presentation were to be left to her, but regular discussions between herself and her supervisor were built in to the programme so that her work could be monitored. Her research was largely print-based, looking at archives and working in the city's library and records office, and she also organised interviews with interested people who had relevant historical knowledge. The end result of this tightly scheduled work was a series of reference guides for historical tours, study packs, and booklets.

It is not surprising, given the quantity and quality of Moira's achievements that she felt she had learnt a lot from her placement, but from the beginning she seemed more interested in what the work experience itself could teach her, than in the Learning Outcomes which had been assigned by the College. For example, she believed that LO1 (the nature of the organisation) and LO2 (internal organisation/management structure) were of very little relevance to her project, although she amended this view when it came to preparing for the dialogical assessment [P].

She saw LO3 (economic/environmental aspects) as 'more relevant'[P] to her placement project, but she acknowledged that even the work she did to achieve LO1 and LO2 was useful in promoting the acquisition of new skills. Having to research the organisation to meet these outcomes as well as to undertake research for her projects meant that she learnt 'how to write effective copy', 'the need to write in draft form', 'the need to cover different styles of writing to meet the needs of different assignments'

and 'how to present an article using Pagemaker'[P]. In addition to these technical skills she learnt 'how to organise and manage time to meet deadlines', 'interviewing techniques, listening skills and positive assertiveness' and 'how to cope with the frustrations of petty in-house red tape'[P] (caused by what she perceived as a lack of co-operation from some authorities in the course of her research).

The acquisition of technical skills was clearly important to Moira, who asserted, 'I could not have effectively learnt how to edit or how to write using such a variety of styles had I not had the practical project of the work based learning module to assign them to'[P]. She was also clear about the ways in which she could transfer her new knowledge of research techniques to the college situation, proposing that, 'for next year's history dissertation I will be able to put these skills into practice, having the experience of a professional project to fall back on.'

This student was also aware from the beginning of how her existing skills would help her achieve her placement objectives. When asked, as part of the support programme, to consider what problems she might encounter, she compared her attitude to that of Browning's Bishop Bloughram, envisaging the path to her final objectives 'as one of achievement diversified by problems, or problems diversified by achievement. Either way both achievements would be reached and problems overcome'[P]. This not only illustrates a creative ability to transfer knowledge from her study of literature to her work based learning portfolio, but also demonstrates her confidence that her knowledge and skills will enable her to overcome difficulties and meet her goals.

Moira's confidence was justified, and she was able to note in her portfolio,

I have been able to draw on my academic work to aid me in the [work based learning] project and in the way that I tackled both practical and conceptual problems ... I would not have been able to undertake the practical research for the project had it not been for the skills that I had learned in my History module.' [P]

As well as benefiting from the transfer of knowledge from her academic courses, there is evidence in the portfolio that the support programme for the work based learning module provided Moira with knowledge and theory that she was able to apply during her work experience in such a way as to greatly enhance her self-knowledge.

The support programme enabled her to identify her preferred learning style and to apply this to the research she undertook during the project. Also, the work on assertiveness and 'stress drivers' helped Moira to 'recognize the very negative effect my BE STRONG stress driver was having on my work, and on the use I made of time available to me' [P]. This evidence strongly indicates that Moira was not being as effective as she might be because of her almost stubborn determination to be independent. However, having learnt that 'BE STRONG people must learn to take as well as give in order to control their stress'[P]; Moira was able to apply this in her placement, and found it particularly useful during her interviewing work:

by being assertive and polite rather than either humble or aggressive, I was able to maintain a calm and friendly atmosphere during the interview in which Mr. M... felt relaxed enough to speak. [P]

The support programme also dealt with listening skills, which again proved helpful to Moira during her interviews, and combined with knowledge gained from her assertiveness course this enabled her to see how to improve her interpersonal skills: but she also acknowledged that this sort of lesson takes time in her observation that, 'What I have to learn now is not to be afraid of pauses in a conversation ... one isn't always being unfriendly by being silent.' [P]

Although the work experience helped Moira make considerable progress in this area, she admits that she did not find it easy: 'In order to develop some type of team feeling in the Records Office I had to try extremely hard' [P]. She was frustrated by the rules and regulations surrounding access to the Records Office, and for some reason this resulted in her experiencing 'in-house bickering'. With some effort she managed to distance herself from this and realise that she 'did not need to take what was said as a personal insult, no matter how frustrating' [P]. Learning 'how not to take what people say personally' [P] was clearly an important lesson for her, as she recognised that negative feelings of self worth could impede effective work.

By the end of the placement Moira felt that she had overcome these difficulties: 'I earned respect by my patience in this area, and in the resourcefulness I showed in finding other sources than those in the Records Office' [P], and she was able to report

that staff at the Records Office not only began to take an interest in her work and offer help, but they also 'asked me for information on several occasions, and are now keen to have my articles for future study.' [P]

Moira was justifiably proud of the work she produced during her eight week placement, and demonstrates no false modesty:

The English Tourist Board commissioned a study of the nationwide history of tourism in 1990, now I have created a similar study, using a similar style of argument, specifically for Chester, and I am proud of what I have created. [P]

Her output comprised 3 periodical articles, a reference guide, a script for a tour guide, an article intended for publication in a Sunday newspaper, and a series of stories about the city, and producing such a quantity and range of writing was a considerable achievement.

In reflecting on the placement as a whole, and what she learnt from it, Moira felt that it had worked extremely well for her 'not merely because I knew what I was doing, but because I knew why I was doing it' [P]. She was convinced of the benefits of tourism for the economy and quality of life of the city, and that people working in the tourist industry should have a solid understanding of it, and she believed that her work would help to provide this.

Moira was very positive about the way in which her work had benefited from being undertaken within the framework of the work based learning module. The need to make a presentation helped her to clarify the knowledge she had gained, so that when she came to edit a second set of articles after she had given the presentation, she 'thought more carefully, and more consciously, about what I was actually doing' [P]. Similarly, she acknowledged that the dialogical assessment 'highlighted a deficiency in my understanding of the council's organisation and structure, which I have since made strenuous efforts to correct' [P]. Although initially she had felt LO1 and LO2 were not really relevant to her work, the impression here is that once the weakness in her knowledge had been exposed by the assessment process, her 'strenuous' efforts to correct it owed more to her own desire for clearer understanding than to any need to

meet those particular learning outcomes. This interpretation is supported by Moira's own observation that,

actually undertaking the assessment has occasioned a learning process for me, as for the first time I have come to identify my assessed strengths and weaknesses for myself, and then to act upon what I have learned. [P]

It is interesting to compare this statement, welcoming the opportunity for self-assessment, with the response to the post-placement questionnaire in which Moira identified being assessed as the least enjoyable part of the module. The apparent contradiction may be explained by the fact that her assessors were primarily college-related personnel, for whom she appears not to have had a high regard, whereas she welcomed the opportunity the module offered for her to assess herself. Also, while throughout the portfolio she rightly lays emphasis on the value of the placement for enhancing her academic research and writing skills, she also acknowledges the value of the support programme in helping her towards the self-knowledge which allowed her to perform effectively in the working environment.

All the evidence suggests that Moira entered upon the module with many of the characteristics necessary for the exercise of autonomy and the nature of the placement was such that she was able to capitalise on the strengths she brought with her.

Independence

Moira was clearly independent and demonstrating some autonomy before her placement began, but the evidence from the post-placement questionnaire suggests that perhaps her strong-mindedness and independent attitude actually impeded her effectiveness as a learner, and this may in fact have been part of the problem Moira identified with her tutor. Just as Sara was unable to demonstrate autonomy when she was forced to be independent without adequate inner resources or external support, so Moira's determination to be independent may have led her to be less receptive to and tolerant of others' ideas, than someone who had a more maturely developed autonomy.

However, because Moira combined independence with a high level of internal motivation, as her statement that she knew what she was doing and she knew why she

was doing it testifies, she was able to plan effectively and work as hard as was necessary to achieve her goals. Because she had such a clear conception of what she wanted to achieve she was able to be flexible in her approach, as when difficulties at the Record Office forced her to find alternative sources of information.

Moira demonstrated independence from the outset, and there is no evidence to suggest that she became any more independent as a result of taking the work based learning module, but there is evidence of development in other areas, which enabled her to exercise her independence more effectively.

Metacognition

Like Janet, Moira entered on her work placement determined that it would be a valuable learning experience, and evidently appreciated the opportunity it gave her to learn about different styles of writing and to develop her editing and presentation skills, recognising that these would be useful in her subsequent academic work. She was also able to identify where her existing academic knowledge and skills, in English and History, could be applied in the context of the work experience.

This indicates that Moira's metacognitive skills were quite well developed when she began the placement, and the evidence suggests that they were developed further by the work based learning module. For example, after the dialogical assessment she came to appreciate the value of the structured learning agreement which forced her to learn about the organisation she was working in, although at the beginning she had not perceived these standard learning outcomes as being particularly relevant. She also recognised that by applying what she had learnt on the support programme about her preferred learning styles and about listening skills, and the self-knowledge she had gained through the assertiveness course, she was able to be more effective in her work.

Self-Actualisation

Self-knowledge is fundamental to self-actualisation, and Moira's ability to see the benefits of applying in the working environment what she had learned about herself on the support programme enabled her more effectively to achieve her goals. She was able to maintain her self esteem by realising that when differences arose she 'did not need to

take what was said as a personal insult' [P], and both self-esteem and self-confidence were enhanced by the fact that she felt she was able to overcome her colleagues' tendency not to take her seriously, and to gain the respect of the people at the Records Office.

Perhaps the most significant evidence of development in self-actualisation was the enthusiasm with which Moira welcomed the opportunity the work based learning module provided for self-assessment, and the determination she showed to work on her own weaknesses: both those exposed by the dialogical assessment, and also the personality traits revealed during her assertiveness course.

Social Awareness

The available evidence suggests that this was the area where the most development was necessary in order for Moira to become effectively autonomous. Her determination and independence, combined with the need to make sure that her colleagues would take her seriously, caused her some difficulties in interpersonal relations; most evidently with her tutor, but also in the workplace and at the Records Office.

Although there appears to have been no improvement in her relations with her tutor, this may be because once she had established her goals for her placement she felt she could achieve them without his assistance. This was not the case with her work colleagues and the Records Office personnel, and in the course of the placement she 'cultivated an element of teamwork and spirit with these people' [P]. It is not clear whether Moira fully appreciated the fact that these more harmonious relationships contributed to the effective achievement of her goals, although she did acknowledge that she was helped in her interviewing by the knowledge that she must 'take as well as give' [P]. However in both her portfolio and her questionnaire responses the evidence is focused more on the increase in self-confidence and self-esteem that came from improved relationships than on the part they played in helping her achieve her goals.

Nevertheless, although Moira demonstrated some aspects of autonomous behaviour from the outset, it would appear that the work based learning module created opportunities for personal development which allowed her to move towards a more

effective autonomy, and more importantly to recognise for herself that ‘I need to build upon these skills now.’[P]



HEATHER

Heather was studying computer science with physics, and like Moira she arranged her own work placement in an area where she would be able to use her academic knowledge, but in this case she was returning to a familiar environment: the administration department of the general hospital where she had worked before starting her college course. Her personal aims for the work based learning project were to develop her technical computing skills and apply the systems analysis theory she had learnt at college in a way which would meet users’ needs. She wanted to focus her work based learning project, which was on the prevention of work duplication by medical secretaries, something she had already considered during her first year at college.

During the initial tripartite discussions this idea was refined into a very precise project which would involve investigating the way that information was collected and disseminated by the occupational therapy department, and she would then devise a computer program to produce reports ‘using existing on-line software’[P]. Her Learning Agreement was very specific in the area of work-based skills, and outcomes included, ‘ability to listen, think about what is being said and assess user’s needs effectively’, ‘ability to select the appropriate means of conveying information, ideas and medical practices’ and ‘working as a member of a team’[P]. Apart from the Learning Outcomes that were common to all students, most of the others for Heather related to her intention to learn how to ‘implement and maintain large scale information systems.’[P]

Her portfolio report on LO1, LO2 and LO3 was thorough and systematic, detailing the development of the National Health Scheme through to her own hospital’s position

with regard to self-governing status, its funding, management structure (shown diagrammatically) and the composition of the hospital's client base.

She based the design of her project on knowledge of managerial modelling which she had gained during her college course, and in particular on a model, which 'does not start with the person, the skills or the role of the manager, but with the comprehensive needs of the business and then derives the "first from the last"' [P]. She observed that her project followed this model precisely: 'it started with the information that needed to be provided, investigated the information sources and then derived the reports to be produced' [P]. This, she noted, 'led to reflection on how looking at things in a totally different way can produce startling results' [P], but unfortunately she gives no examples from her own experience.

Heather's portfolio could actually be seen as an example of a report written to this precise model, as she succeeds in meeting all the learning objectives, and reporting on her experience largely through generalisation and use of the passive voice. The impersonal tone of the whole report is echoed in her questionnaire responses: although she returned both the post-placement and the retrospective questionnaire, on both of them her responses are minimal, and in most instances comprise only a score without any explanatory comment. This, and Heather's style of writing in the portfolio, tends to suggest either a considerable lack of confidence, or a lack of any deep understanding of either her work or herself, or an inability to present her knowledge and understanding in a way which makes it accessible to others.

This last interpretation is, in fact, supported by her tutor's comment in a written assessment of Heather's presentation, that she 'didn't realise how to handle the technical nature of her work with a non-specialist audience.' The tutor also noted that this student became 'easily flustered' and I observed this myself during discussions with her at various stages of the work based learning module. She seemed reluctant to enter into group discussion, was guarded in her conversation, and did become very uncertain if she had to deviate from a prepared response.

Nevertheless Heather indicated in her retrospective questionnaire that she felt her communication skills had improved during her placement, giving the question a score of 4 (out of a possible 5), and suggests in her portfolio that this was a result of working as part of a team. Writing about teamwork she characteristically begins with a generalisation: ‘systems analysis and software engineering work by its very nature requires this ability together with communication skills’[P] and her examples of team work seem somewhat impersonal. She cites the necessity of having to ‘stand in’ for other staff when working in the computer section ‘where staff cover is frequently strained’, and referring to work on the project itself, she observes, ‘we all had to work as a team - all with separate inputs but all having to achieve our milestones at a particular time’. More specifically she reports that,

working as a guest of the team of the computer section, and also working as a member and ‘prime mover’ of the Systems Analyst (sic) team ... [gave me] ... a rare opportunity and insight into the strategies developed by different personalities and the effectiveness thereof. [P]

However, once again there is no mention of what the insights were, or how they affected Heather’s self-perception.

Her questionnaire responses in this area are no more revealing. She felt she could ask for help when she needed it, but did not ask. She was able to express her own opinions and develop her ideas, and was supervised ‘hardly at all’ [Q1]. Her comment on the question of whether she was directed in her work was ‘I was only introduced to the Department and Staff’ [Q1]: a rather oblique response which raises questions about the nature of the teamwork she engaged in.

Heather acknowledged in her portfolio that during her placement she was able to make use of some of the knowledge of interpersonal behaviour acquired during the Support Programme. The ‘action learning’ work enabled her to ‘solve an “assertiveness” problem’ by enabling her to ‘stress to the Occupational Therapy Manager that what she saw as a system problem was really an operational problem and therefore should be addressed by herself’[P]. Also she observed that

the Learning Style Inventory reinforced what I already suspected about myself but forced me to acknowledge it and turn it to advantage. I was unaware of the influence my natural

enthusiasm had on other people until I reflected on this vis a vis past situations and decided to use this as a tool to sustain team interest should it become necessary. [P]

She does not elaborate on whether it did become necessary, and although her decision to use her 'natural enthusiasm' in this way suggests that she possessed considerable self-control and felt able to apply this and her new-found self-awareness to her advantage, it does not provide any real evidence of co-operation. In her retrospective questionnaire she only scored 3 against the question about whether she had improved her skills of co-operation, despite the fact that she also maintained that she had no difficulty fitting in in the workplace [P], and commented that the most enjoyable part of the placement was 'meeting people.' [P]

In the section of the portfolio where Heather was asked to evaluate her experiential learning in the light of academic subject knowledge, she identified a number of instances where she had done this:

the main areas of reflection centred around the differences in the 'real world', the constraints imposed [by finance and the need for standardisation] ... seeing in operation the effects of different personalities within a team ... the need for discipline in time/man management ... and the usefulness of allocating 'slack time' in software engineering. [P]

Other areas of reflection were also cited in this paragraph, but Heather does not elaborate in any greater depth on the nature or substance of her reflections, so there is no indication of whether this was new knowledge she had gained, or existing ideas that had been consolidated during her placement.

There is no doubt, however, that she was able to transfer her academic knowledge and skills to the workplace to good effect, and she reports that 'Software Analysis, Software Engineering and the Computer Science course itself provided a range of tools with which to evaluate the new systems and applications in the workplace' [P]. She also gained a deeper understanding of her subjects from the placement, which, she maintained, 'improved my knowledge and further explained the relevance of different programming languages learnt on the computer science course' [P]. Overall she believed that the work placement had been 'of immense intrinsic value to my academic

studies; it has been relevant and allowed me to experience this area of my study in the real world.' [P]

It is perhaps surprising, therefore, that in the retrospective questionnaire she recorded entirely negative responses to all the questions relating to the philosophy of the work based learning module. She did not think her relationship with her tutor had altered as a result of undertaking the module; did not want negotiated learning agreements elsewhere in the degree course; did not think that work based learning should be included in all degree courses, and did not think her portfolio would help at a job interview.

All the evidence suggests that Heather valued her work experience as complementing her academic studies, but, unlike Janet and Sara, appears to have identified little benefit to herself from the structure of the work based learning module. The fact that she was a mature student, who had already worked 'in many differing disciplines', where 'by listening, reflecting and experimenting, much has been learnt empirically' [P], might lead one to conclude that she was already fully autonomous and did not need the work based learning experience to help her develop further. However, this view is not supported by a consideration of the available evidence in relation to the elements which contribute to effective autonomy.

Independence

There can be no doubt that Heather was independent, from her initial firm ideas about the nature of the project she would undertake and the way she would approach it, through her achieving her objectives in the workplace without needing to ask for help, to the fact that the thing she did not enjoy about the placement was 'not having my own desk/chair/PC' (Q1). However, it could be argued that as she was working in a familiar environment, on a project focused on the application of theoretical knowledge in which she had a firm foundation, the security this provided meant that independence and motivation were all that were required to enable her to meet her objectives. Her motivation to complete her project was strong, and the fact that she does not acknowledge any assistance from her tutor or her employer mentor suggests that she was completely self-reliant in achieving the goals which she had set for herself.

While such independent behaviour may appear to be evidence of autonomy, as in the case of Moira, it could be suggested that this degree of independence actually impeded the development of other characteristics which contribute to a more effective autonomy than was demonstrated here.

Metacognition

There is no doubt that Heather proved her ability to apply her theoretical subject knowledge in a practical situation, as she devised for herself a practical project which would allow her to use her existing knowledge. In her portfolio she refers to her early determination to have ‘transportable skills ... and a transportable pension’ which had allowed her to undertake a wide variety of jobs before attending college [P], and computing knowledge is by its nature a very transportable skill. However, there is no evidence that she reflected in any depth about the process, and she herself only recorded a score of 2 when asked if her problem-solving skills had improved as a result of the work based learning module [Q2].

More significantly, in her summary of LO6 (the student’s ability to reflect on and evaluate his/her learning from the placement as a whole) Heather’s response begins ‘I have learnt *about*: Communication, Teamwork’ [emphasis added], but nowhere in the portfolio, or the questionnaires, does she really address the question of what it is that she has learnt, or show any evidence of having put new learning into practice. In the same section she comments that ‘rather than encourage a change of attitude towards my subject, the experience has reinforced what I have learnt ...’ [P], and there is no evidence at all of any open-mindedness which would allow her to modify her ideas in the light of experience. This is particularly true in relation to her ideas about herself, and just as she observes that she has not changed her attitude to her subject, evidence suggests that she has not changed her attitude to herself either.

Self-Actualisation

The only evidence of any development in self-knowledge is found where Heather observes that she was ‘forced ... to acknowledge’ what she already ‘suspected’ about herself [P]. Her choice of words suggests that she is not altogether happy with this knowledge (about the influence her natural enthusiasm had on other people), and the

fact that she chose to use the knowledge as a 'tool' to manipulate other people, rather than as providing insight into her own personality, again suggests that undertaking the work based learning module did not change or develop her self-knowledge at all.

Heather's undoubted self-reliance and independence might suggest that she also possessed self-confidence, and the efficiency of the planning, implementation and reporting of her project reinforces the impression that she had no doubts about her abilities. However, other evidence suggests that this is only an impression, and that Heather's impersonal efficiency may well have been a substitute for confidence. It may be significant that she alone of all the students in her cohort undertook her work based learning in a place she had worked before. Also, as both her tutor and myself observed, in any situation where she was not totally in control, or where things did not proceed according to her plan she became flustered and withdrawn.

The same evidence can be used to argue that Heather did not possess a great deal of self-esteem, since everything she did, said or wrote was so well planned and controlled that there was no room for any weakness to show. Unlike all the previous students, she did not admit to any difficulties or problems, other than, for example, the 'constraints' of working in the public sector [P], and the fact that she would have liked longer to complete her portfolio [Q2], and in situations where any weakness might have been exposed she withdrew or became uncomfortable.

It might be assumed that by achieving her goals, and implementing a skilled technical project her confidence and self-esteem would have been enhanced, but in fact there is no evidence that they were developed in any way by the experience, and certainly not in any way that Heather herself could acknowledge.

Social Awareness

Although she cites 'meeting people' as the most enjoyable part of the placement [Q1], and writes in her portfolio at some length about teamwork, the overall impression is that little teamwork was involved in Heather's work, and that she was not required to co-operate with others to any great extent. In the retrospective questionnaire she indicated that she felt the aim of the work based learning module in establishing a

partnership between student, tutor and employer with shared responsibility for learning was completely achieved, giving a score of 5 [Q2], but this partnership is not acknowledged anywhere else in her evidence. Presumably she received a level of support and co-operation from both tutor and employer which allowed her to achieve her goals in her own way.

Effective autonomy, however, requires more than just single-mindedness and an ability to gain other people's co-operation in one's own schemes. It also acknowledges a responsibility towards other people, and an ability to co-operate with them, sometimes on their terms. The fact that Heather was unable or unwilling to do this is suggested by her tutor's comment that she 'didn't realise how to handle the technical nature of her work with a non-specialist audience' and in another context by the minimal information she provided in her questionnaire responses.

It was very evident from Moira's portfolio that the process of writing it had helped her to a realisation of how much she had learnt from her work-based learning. It is just as evident from Heather's portfolio and her questionnaire responses, that she had either learnt very little, or was not prepared to acknowledge what she had learnt, in which case the learning may as well not have occurred. In either instance, Heather appears not to have benefited from undertaking the work based learning module in terms of increased autonomy.

It may be that by undertaking a highly structured project in a familiar environment, and reporting on it strictly within the framework of fixed Learning Outcomes, this student avoided the kind of confrontation with situations or ideas that challenged existing schemas, which provided significant growth points for Janet, Sara and Moira.



This sample of students was selected from the cohort because each one entered on the work based learning module with different prior experience and different expectations; what they gained from it also differed, particularly in the extent to which the experience

appears to have helped to promote autonomy. However, this analysis has also suggested that the nature of the work based learning module itself had a definite influence on the outcomes for these students, and there may be lessons to be learnt from this for anyone actively seeking to promote autonomy through work-based learning.

The nature of Janet's project was ideally suited to her needs, but offered sufficient challenges for her to develop considerable self-confidence as she overcame them. In this she was helped by the nature of the support she received from both her tutor and her employer. Sara, on the other hand, had very little support from the tripartite team; nor did she have a clear project to undertake, yet because she was obliged to reflect closely on her experience in the writing of her portfolio, she came to a number of realisations about herself which would help to lay the foundations for developing autonomy.

Moira was independent, had a well thought out project to undertake, and did not require much support from her tutor or employer. She was working in a familiar field, having had previous experience of the tourist industry, but in an area which was new to her, and therefore required her to accommodate to it. For this student, the greatest movement towards autonomy appears to have resulted from the difficulties she experienced in relation to other people she encountered during the placement. She had to find strategies to help her to overcome unhelpful attitudes or to conduct effective interviews, and in this she acknowledges the value of the work based learning support programme, which gave her insights into herself and other people, and led her to adopt appropriate behaviours which helped her achieve her goals.

In one way or another, each of these three students was helped towards autonomy by some aspect of the work based learning module, and not simply by the fact that they were working in the real (as opposed to academic) world.

My analysis indicated that Heather did not seem to show any significant personal development as a result of her work experience, and that for her the work based learning module did not help to promote autonomy at all, but I also suggested possible

reasons for this. She was a mature student, extremely independent, working in a familiar environment, on a very precise project, for which she required no assistance. She appears to have encountered no problem which might have challenged her perception of her work, or herself, and reported on her work experience in a way which suggested that her reflection was more academic than personal.

As the evidence suggests that the work based learning module can help to promote autonomy, it is instructive to find a case where it has failed to do so. The significant factor in the development of the other students appears to have been some sort of challenge encountered in one or more aspects of the module. Heather was not challenged and therefore showed no sign of development.

The hypothesis of this somewhat simplistic conclusion must now be tested further, by looking at similar evidence from a much larger sample of students to see if they appear to have developed any of the qualities of autonomy; to consider whether one or more aspects of the work based learning module can be identified as the area which contributed most to any development; and to assess whether that contribution arose as a result of the student being challenged.

5



THE LESSONS OF WORK BASED LEARNING

*Let us (since Life can little more supply
Than just to look about us and to die)
Expatiate free o'er all this scene of Man;
A mighty maze! but not without a plan;
ALEXANDER POPE (An Essay on Man, Epistle 1)*

In the last chapter I looked at the experiences of four students who had undertaken a work based learning module as part of their degree course in 1994. I focused my analysis on four key attributes which I consider to be prerequisites for the effective exercise of autonomy: independence, metacognition, self-actualisation and social awareness, and assessed whether by facilitating the development of these qualities in the students, the work based learning module could be said to have promoted autonomy.

The students' evidence suggested that work based learning had provided opportunities for the development of the prerequisite qualities, and their development was significant in those areas where the student had been challenged; intellectually, emotionally or socially.

In order to assess the validity of these observations, I targeted a much larger sample of students undertaking similar work based learning modules during 1995. I asked 70 students to complete an initial questionnaire about their experience, and a fuller retrospective questionnaire. I also sought permission to read their assessment portfolios. I asked if I could arrange to visit them in their placement, although I was only able to see 14 of them in the time available to me, and I sent questionnaires to all the students' employers and tutors. The questionnaire proformas are shown in

Appendix 1. Responses from tutors (12) and employers (8) were disappointing, and although all 70 students completed the initial questionnaire, 12 of these failed to provide further evidence even after 3 requests. I therefore had questionnaire and portfolio evidence from 57 students.¹ Most of these were taking the eight week module, but four had chosen the 4 week option. I also had additional observational evidence from 14 of the students.

Although it was clearly impractical for me to write up my analysis of the evidence from 57 students in the same detail as I had used with the four 1994 students, I nevertheless examined the evidence in the same way; seeking to identify where development had occurred in independence, metacognition, self-actualisation and social awareness, considering in what ways the work based learning module had contributed to this development, and determining whether there was any indication of its having promoted autonomy in the student.

In order to handle the quantity of data that emerged from this, I devised a recording system which allowed me to tabulate the results of my analysis (Appendix 4). Students were given a score from 0 to 3 for each of the prerequisite qualities, according to the extent to which the evidence suggested they had developed as a result of their work based learning, and these were averaged to indicate an overall development in autonomy. It must be emphasised that the scoring system has no statistical significance but is simply a convenient method for grouping the data into manageable sections. Therefore it was also important to record brief observations alongside the scores, because in one or two instances the score indicated that the module had promoted the student's autonomy to a greater or lesser degree than was suggested by the evidence as a whole.

Grouping the students according to their average score did result in a more manageable structure for discussing the evidence that emerged from this large sample, but it was still too much to report in its entirety. I have therefore chosen to include here my

¹ Where I have quoted from the evidence, [P] indicates quotations taken from the student's portfolio, and [Q1] and [Q2] those taken from the student questionnaires. [E] refers to employer and [T] to tutor questionnaire responses.

analysis of evidence from those students who showed the greatest development in autonomy (groups 1, 2 and 3) and those who showed the least. (groups 9 and 10). The backgrounds, placements, and learning experiences of these students are sufficiently varied to illustrate and support my arguments concerning the value of work based learning as a vehicle for promoting autonomy.



GROUP 1 (Average Score = 3)

Only two students, Ingrid and Gillian, showed evidence of development in all four qualities which suggested they had moved a long way towards autonomy, although they started from very different positions.

Ingrid was a mature student with a grown up family and experience of the working world, and indicated in her initial questionnaire that she considered herself to be quite independent. Gillian, on the other hand, had entered college straight from school with little work experience, and far less opportunity to demonstrate independence.

However, over the 8 weeks work based learning both of them showed a marked development in their ability to act independently.

Ingrid had to learn new strategies and skills to enable her to manage classes of children. Self-reliance took on a new significance, and became 'very important as I had to prepare for classes'[Q]; and not only for those lessons she was scheduled to teach but also for the extra work with sixth form pupils that she undertook after school on her own initiative. The younger student, Gillian, began by working closely with her employer mentor at the theatre group where she had her placement, but independence was somewhat forced upon her when the director became ill. She was, however, able to absorb new knowledge very quickly, and to use it effectively. She 'had to take on new responsibilities when the community director's projects were distributed between the staff'[P] but by the end of the 8 weeks she was able to observe, 'I believe ... I was considered to hold just as much responsibility within specific projects as the free-lance

workers did' [P]. Also, and importantly in the context of evidence of autonomy, although both students were given the opportunity to act independently, each was ready to ask for and act on advice when it was appropriate to do so.

Both students used their different background knowledge and skills to inform the work they did during their placement, and were aware of how they could use the knowledge gained during the work based learning both in their subsequent college work and employment situations. Ingrid found that her experience of bringing up a family was of value in the classroom situation, whereas Gillian was helped to adjust quickly to the new demands made upon her by her recently acquired academic knowledge and skills. Both of them showed versatility and adaptability, recognising where problems might occur, and finding effective solutions. Ingrid, for example, recognised that some pupils were 'suffering from a grave lack of self-esteem' [P] and chose to address this by turning her drama lessons into 'thought provoking' sessions, rather than the sort of 'aesthetic' experiences that such pupils might not relate to, while Gillian was forced by circumstances to put into practice all the knowledge and skills she had acquired in the first week of her placement, to successfully manage three concurrent projects. She had 'no doubt that this sudden increased responsibility improved my confidence and gave me the incentive to acquire new skills for myself.' [P]

The increase in confidence was important to Gillian, and enabled her to observe that 'I am now more willing to undertake new tasks and approach challenging situations with a positive attitude'[P]. Also, because she was doing a 'real job' her self-esteem was increased. She felt her 'ability was enhanced as I took on the responsibility of directing short scenes on my own, therefore knowing that I had to overcome any problems by using my own initiative.' [P]

As a more mature person, Ingrid felt confident at the start of her placement, as is demonstrated by her response on overhearing a rude remark from a child: '[I] turned around, looked the boy in the eyes and walked up to him slowly - rather like a lion after its prey - then asked the boy if there was a problem'. However, there is evidence that she developed in other areas of self-actualisation. She learnt to assess her own actions and interactions with others on the basis of self-knowledge and feedback from other

people. She also recognised the importance of self-esteem, not just for her pupils, but also for herself, and acknowledged that when the children responded to her and colleagues praised her, 'I felt really proud of myself' [P]. When she reported that pupils had commented that she was rather old to be training to teach, she balanced this by reporting another pupil's more encouraging observation that 'Miss is ace, Sir', thereby demonstrating the sort of positive but realistic self-regard that is a prerequisite for effective autonomy.

Despite the reaction of the pupils Ingrid felt her age to be an advantage when it came to fitting in in the staffroom, where most teachers were of a similar age, and although some of them 'just ignored me' [P], she found the school a friendly and welcoming place, and felt that her communication skills, particularly non-verbal ones, had improved 'immensely' [Q]. She worked well with the Head of Drama, planning her own lessons, but gaining his approval for her plans before they were implemented, and she established appropriate relationships with the pupils. She was aware of the need to develop the pupils' social awareness without herself becoming over friendly and avoided the trap of being drawn to comment on other teachers by pupils' seemingly innocent questions. The way she reported these achievements suggests that this type of interaction did not always come naturally, and indicates that her sense of social responsibility for herself and towards others was enhanced by her work based learning experience.

Gillian also felt that she had fitted into her workplace easily, and had been accepted by colleagues so that she was able to ask for help and advice as necessary. She herself noted that her position had evolved during the 8 weeks from one where at the beginning she 'co-operated from a distance' to feeling by the end 'a true member of the team' [P]. She believed that her communication skills had 'definitely improved', and was also able to explain why: 'I went with a lot of inhibitions, especially when addressing strangers ... but by the end of my 8 weeks I felt confident that I could answer all questions and I believe this confidence improved my communication' [Q]. Such awareness of the inter-relatedness of knowledge, confidence and communication suggests that as a result of her work based learning Gillian had gained in all three, and

in the ability to reflect on her learning, and had moved a long way along the road to effective autonomy in a very short time.

Both these students appear to have benefitted from placements which were conducive to the development of autonomy, and the evidence suggests that they gained more from their interactions in the workplace than they did from the formal support structure of the tripartite underpinning of the work based learning module, but this will be discussed in a later chapter.



GROUP 2 (Average Score = 2.75)

On the available evidence, five students developed considerably in three out of four of the qualities necessary for autonomy, and showed marked progress in the fourth. Two of the students, Brenda and Naomi, were mature and had a background of work before entering college, whereas the other three (Fiona, Jane and Wendy) were younger, and had entered college soon after leaving school.

The two mature students scored the same in all areas, showing the greatest development in independence, self-actualisation and social awareness, but slightly less in metacognition, whereas the younger students all scored 3 on the evidence of metacognitive development, two of them also scored 3 in independence and social awareness, and the third scored 3 in all except independence.

Independence

The two mature students (Brenda and Naomi) both believed themselves to be quite independent before they began the work based learning module, but both recognised that the experience had improved their self-reliance and ability to work on their own. Brenda had worked as a nurse before entering college, but had 'rarely been in a position of full responsibility to complete work before' [P]. During her placement she

had to work on her own 'more than usual' [Q] and consequently felt that her self reliance had 'definitely' [Q] improved.

Naomi was a deaf student who had been introduced to the College by Janet, the deaf student discussed in Chapter 5. Like Janet, she felt that her disability had contributed to her development as an independent individual, and yet she acknowledged that as a result of the work based learning module she had seen further 'vital development' [P]. She had undertaken a project of her own devising which would be of benefit to others, into which she put 'a lot of effort, and my best ability into utilizing the opportunity I had been given.' [P]

Fiona, although much younger, also demonstrated some ability to act independently before the placement began. Having decided to undertake the 8 week module she was dissatisfied with the placements offered to her by the college and found an alternative one for herself. Her independence and confidence were, however, less evident in the initial tripartite discussions when learning outcomes were translated into a learning agreement. At this stage she 'felt under a great deal of pressure and was unaware of what was required'. This insecurity was evident in the way she tried to act independently in the early stages of her work experience, when she was 'keen to create a good impression' [P] and therefore was 'slow to ask for help feeling it was a sign of failure', and consequently 'made a series of mistakes' [P]. The turning point for Fiona appears to have been the presentation of her first report which went well, and she was 'filled with surprise and pride' [P]. As a result of this boost to her self-esteem, she was able to return to her placement with a more autonomous level of independence, being self-reliant when it was appropriate but also being willing and able to ask for help when it was necessary to avoid mistakes and meet her goals.

Jane accepted the placement allocated to her, working with six other students to undertake a survey for the police, looking into how the local community view the police force. Aims and objectives for the project were established in the tripartite discussions before the placement began, but it was left to the 6 students to work out their individual roles. As the work progressed, this freedom allowed each student to

take on responsibility according to her/his individual strengths, and Jane focused on interviewing; devising questionnaires and analysing the results.

However, while this approach can be seen to have helped develop the students' independence, it impaired their ability to work together efficiently as a group, and Jane reported that 'during the latter stages of the study the atmosphere could be described as 'stormy' because there was a lack of consensus and commitment'[P]. Her response to this was to take additional responsibility on herself, and to attempt to lead by example. She organised a meeting with the Drug Squad, prepared a second questionnaire and issued a press release, all of which can be seen as independent actions, but undertaken in the context of, and contributing positively to, a group initiative, and thereby demonstrating increasingly autonomous behaviour.

The one student in this group whose development in independence was less than in the other four qualities was Wendy. She chose to undertake her placement in a school with a view to gaining work experience as a teacher. Although she believed that her self-reliance increased as a result of the work based learning, she added that it 'still needs to be improved' [Q]. She did not develop her work beyond what was in the learning agreement, but she undertook quite demanding tasks when they were suggested to her, and was willing and able to ask for help when necessary. As the placement progressed she began to take more initiative, organising both equipment and pupils at the start of lessons, and by the end of the eight weeks she was planning and implementing teaching strategies for entire lessons. She also undertook work involving the use of computers of which she had no experience, and which she considered to be a challenge. The evidence indicates that she did develop in self-reliance and initiative, but not to the extent of demonstrating the kind of autonomous independence exhibited by the other students in this group.

Metacognition

Wendy's development in aspects of metacognition seems to have been influenced by the fact that she was working in a school. She began by relying on the single teaching strategy of 'command' [P], but by watching other teachers she realised the advantages of adopting a more flexible approach. She became aware of the importance of style of

presentation, knowing when to intervene, answering questions promptly, and similar classroom strategies which demonstrate an awareness of pupils' metacognitive processes. This development was the more significant because Wendy was not taking a teaching degree at college. She did, however, recognise that she could use her 'skills and knowledge from previous teaching experiences' [Q] to inform her work, and also felt that she could relate the issues covered in the Friday support sessions to the teaching situation. As well as using knowledge to enable her to act more effectively, she also found that 'as new skills were acquired it enhanced my understanding of what teaching involved' [P], and both her questionnaire responses and her portfolio show that she had learned from this particular experience.

The two other younger students, Fiona and Jane, also showed a marked development in metacognition by the end of the work based learning module. Fiona acknowledged that before the placement one of her weaknesses was 'to ignore problems as long as possible' [P], compounded by the fact that she also tended to be too ambitious, 'to take on more than I can comfortably handle ... and then failure is too easy' [P]. This tendency seems to have influenced her initial tripartite agreement, because even before the placement began she felt that many of the outcomes 'were not designed to be achieved' [P], and she was 'faced with apprehension and fear'[P]. However, after this unpromising start, she made considerable progress and produced a report which satisfied both herself and her colleagues, by adopting a problem-solving approach that she had learnt during the Friday support sessions in college. By the end of the placement she had developed a technique for dealing with problems, rather than ignoring them: 'watching others, using my initiative and being eager to learn.' [P]

Jane also began her placement wondering whether the project she and her colleagues were to undertake was achievable. When she discovered the wide range of functions and activities undertaken by the police, in a changing society, she was faced with the question, 'how can the service be measured in terms of effectiveness within [that] community' [P], and was not convinced that the police questionnaire on which they were to base their report could address the problem.

As she conducted interviews with the public using this questionnaire she became aware of its weaknesses ('very badly designed'; 'too repetitive' [P]) but was able to use her academic knowledge of research techniques to assess what strategy it was appropriate to adopt in a particular situation. The team of students eventually decided to construct their own questionnaire, and Jane contributed to this in all its stages, particularly at the end where she insisted on piloting the questionnaire and providing feedback to the rest of the group.

As with Wendy, it seems that the nature of the placement provided an appropriate context for Jane to apply previous theoretical knowledge to a practical situation, and solve some of the problems she identified during the eight weeks.

The two mature students in this group (Brenda and Naomi) both seemed to have experienced some initial difficulty in relating their work in college to their placement. Brenda felt that her earlier nursing experience was more relevant than her academic knowledge, and that her placement experience would be of more value after college, and in this she may have been reflecting her tutor's view. He not only could not see how knowledge gained on the degree course could help students on placement, but also felt that work based learning may have 'dis-equipped'[T] the student for the final year of her college course. However, her employer mentor was more positive, appreciating the way 'someone from outside always makes you see gaps in what is being done currently and brings in new ideas for what can be done usefully.' [E]

In writing her portfolio Brenda seemed to come to a clearer insight into how the knowledge she gained during her placement complemented what she had previously learned in college, and she acknowledged the way she had been able to put into practice what she had learnt in the Friday support sessions about assertiveness.

Naomi also recognised that she could relate some of the theory she had learnt in the Friday sessions to situations in her work placement, and she too seemed to develop further insight into the transfer of skills and knowledge when she came to write the portfolio. Seeing how the psychology theory she had learnt in college had a useful practical application in the workplace deepened her interest in the subject, and

influenced her decision to concentrate on psychology in her final year as part of her sports science degree. Also, having used computers during her placement she acknowledged, 'I am now not nearly as afraid of using computers and know that I will be more efficient in my third year.' [P]

The evidence suggests that as well as recognising that there had been transfer of knowledge and skills between college and the workplace, both Brenda and Naomi applied some problem solving skills during their placement using prior knowledge effectively, and ended the work based learning module well placed to develop their metacognitive skills still further.

Self actualisation

It might be expected that younger students would have more scope for development in self-actualisation than their more mature colleagues, and would therefore score higher in this area, but in this group only one of the younger students, but both of the older ones showed considerable evidence of development.

Both Brenda and Naomi believed that the projects they were undertaking during their work based learning were potentially useful. Brenda was to produce a commercial booklet for General Practitioners, and Naomi was undertaking a project which would 'inform the Student Guidance and Support Service (SGSS) about the way they could more effectively help those with disabilities' [P]. She was particularly pleased to have the opportunity 'to use my own initiative and decide how I was going to research and achieve my two tasks' [P]. Undertaking worthwhile work in both cases enhanced the students' self-esteem.

Both students also gained in confidence from achieving successful outcomes to their projects, despite encountering some difficulties. Brenda was aware that her original ideas were unrealistic: 'I set my sights on completing too much out of enthusiasm to see a final product' [P], but she saw that her self-discipline and developing time-management strategies improved as she 'learned more about the tasks involved and what was truly required.' [P]

Naomi experienced some problems with her research, but reassurance from her mentor and her own self-assessment enabled her to overcome her 'negative thoughts', and recognise that she had gained new knowledge about research practice. More positively, she gained in confidence from attending meetings where 'they took my advice. Therefore I am learning to trust my own judgment'[P]. She also had an article published, and seeing her own words in print she, 'began to realise that my English is good and I have the ability to write the Handbook successfully'.

Wendy felt that an increase in confidence was one of the most significant outcomes of her work based learning, and evidence of developing confidence and self-knowledge occurs throughout her portfolio. When she started her placement she was concerned how the pupils would react to her, and how she would cope with discipline, but acting on advice that she should assert her authority early on, her first lesson was a success which enabled her to take subsequent setbacks more philosophically. When she had negative encounters with pupils, she seems not to have lost confidence, but to have learned from the experience: 'what I should have done was to have used skills gained from the support programme ...'[P]. On another occasion she did not take a particular course of action because she was uncertain of 'what the member of staff would say', but on reflection felt she should have 'taken the risk of making a mistake' because she 'could only have learnt from the experience' [P]. By the end of the placement, she felt much more confident, but still recognised that there was room for improvement, which, she believed, would come with experience.

The other two younger students, Fiona and Jane, increased in both confidence and self-knowledge as a result of their work based learning. For Jane, one of her aims in taking the module was to 'improve my confidence'[Q], and as the project progressed she reported 'my increased confidence had a direct influence on all elements of study'[P], while Fiona observed at the end that 'self improvement and development have been important.'[P]

Both of them acknowledged the part played in this development by relevant sessions at college. Jane's confidence was increased by successfully putting her theoretical knowledge of interviewing strategies into practice and, as the placement progressed,

she used some of the knowledge acquired during the Friday support sessions. When she felt that the group she was working with were beginning to lose commitment she 'tried to get certain group members motivated and put my ideas forward, whilst at the same time listening attentively to their ideas'[P], and she acknowledges that this assertiveness was new to her, because at the start of the work based learning she 'would have preferred to follow the majority.' [P]

Similarly Fiona benefitted a great deal from the Friday support sessions, which she found 'excellent' [Q]. She gained in self-knowledge from the programme, learning, for example, that she was a poor listener, and therefore making a conscious effort to employ effective listening skills when she was conducting interviews. Because the programme was ongoing during the eight weeks some of the self knowledge, such as that she was 'opinionated' and 'judgmental', came too late to have maximum effect during the placement, but while admitting that she still had these 'bad points' at the end of the placement, she was more confident of being able to keep them under control.

Of these two, the evidence suggests that Jane gained more in confidence than Fiona as a result of the work experience itself, but her confidence was quite seriously undermined by the dialogical assessment, where she found some of the criticisms 'tactless and quite demoralising' [P], and the whole experience 'traumatic and ... distressing.' [P]. However, when she came to write about it in her portfolio she was able to see the assessment as a useful learning experience, and one which had damaged her confidence only 'at the time.' [P]

Social Awareness

The one area where all five students in this group showed the most development was social awareness, and in particular the evidence suggests a marked improvement in communication skills.

A quotation from Naomi illustrates how important this area can be to effective autonomy, and sums up her own development succinctly:

I learnt how to contribute equally rather than thinking nobody is interested in me because I'm deaf! ... I now tell people that I am deaf at the start of conversations. I'm me - people are

interested in me and I in them. The deafness isn't a problem if I don't let it be. [P]

This comment also illustrates the inter-relatedness of effective communication and self-confidence.

Despite the fact that Brenda worked on her own for much of the time during her placement, she too showed development in her communication skills and awareness of other people. Her sense of audience was evident in the fact that when preparing a booklet she determined not to 'use long sentences ... and long words lacking in clarity' [P], such as she had come across in a similar booklet she had looked at. In the course of her placement also she had to meet clients in the clinic, and discuss her work with fellow team members and with clinical doctors, all of which she recognised in her portfolio as having contributed to a definite development in communication skills, despite the fact that the placement was not ideal for fostering development in this area.

As her work involved conducting interviews, Jane clearly had more opportunity for developing social awareness, and one of her expressed aims was 'to improve my communication skills, through this interaction with the public and professionals which overall will improve my confidence' [P]. Although she felt confident about conducting door-to-door interviews, she experienced difficulty in the early stages, particularly in steering conversation back to the issues in her questionnaire without interrupting or appearing 'rude and insensitive' [P]. However, by adopting the technique of picking up on a key word, which she had come across in her reading, she was able to deal effectively with this problem.

Jane also developed useful social skills, and demonstrated an awareness of group responsibility when quite serious problems developed in the team she was working with: 'a lack of communication in the workplace, resulting in unproductive activities; poor motivation; frustration and stress' [P]. She demonstrated her independence and took initiatives which resolved the situation to produce a satisfactory outcome to the project and she was consequently able to report in her portfolio, 'I have team spirit and am assertive in times of stress within a group' and 'my behaviour demonstrates

effective interpersonal skills with colleagues' [P]. The self-knowledge and self-esteem which are revealed by these remarks, as well as the development in interpersonal skills, suggest that Jane had made progress towards autonomy as a direct result of confronting an unexpected challenge.

Fiona's placement also involved interviewing the public and working as a member of a team, but whereas Jane developed through accommodating to others and to an external situation, Fiona had to overcome difficulties presented by her own personality. She was aware that she was, 'highly opinionated', a 'poor listener' and 'over judgmental', and was concerned about 'fitting into the office environment'[P]. However, her self-knowledge helped her to acquire 'a level of professionalism'. She learnt to 'keep [her] temper and not appear too highly opinionated'[P] and as she developed positive relationships with her colleagues she was also able to ask for help and advice without feeling, as she did at the beginning of the placement, that it was a sign of failure.

In her interviews Fiona had to learn 'never to assume I was understood' whilst at the same time 'not seeming to be patronising'[P]: not an easy lesson for someone who owned to being opinionated and a poor listener. By adopting an appropriate interview style, and allowing 'room for others to express their views', she learnt to listen to what was being said, and approach issues with a more open mind, so that she could acknowledge, 'I have begun to shelve my political bias and instead see the policies from the patients'/consumers' point of view, which differs every time depending on patient's needs' [P]: an observation that shows she was indeed learning to listen.

Wendy was also nervous at the start of her placement 'in terms of whether I would fit in'[P], but for quite different reasons from those of Fiona. At the beginning she lacked both confidence and independence and although working in a school did not provide much scope for developing independence she took advantage of whatever opportunities arose, and her confidence increased with each small success. The placement did, however, allow her to develop her social awareness and interpersonal skills, both in relation to her teaching colleagues and to the pupils. She observed that as the placement progressed 'my relationship with the staff improved, gaining their trust,

understanding and belief in my abilities' [P]: a comment which reveals also her enhanced confidence and self-esteem.

By observing colleagues working with pupils Wendy developed effective communication skills which reinforced appropriate relationships, recognising the value of praise and encouragement, and the need to speak to pupils in a clear tone and at a level they understand. Although she felt that there was still room for improvement in this area, given her initial lack of experience and confidence, she had made considerable progress.

For each of the students in this group the work based learning module provided opportunities and experiences which allowed, encouraged or even forced them to alter their behaviour or attitudes, and through reflection to learn from the experience and to become more autonomous.



GROUP 3 (Average Score = 2.5)

This group comprised three mature and two younger students, one of whom undertook the four week work based learning module. While they all gained the same average score, none of them showed the same profile of development in each of the four qualities, although all five appeared to have made the most progress in metacognition.

Independence

The evidence suggests that in this group of five, the greatest variation in development was in the area of independence; with two students scoring 3, two scoring 2 and one scoring 1.

David was a mature student who had experienced the world of work 'mainly in management roles' [Q], and who came to college having lived for the previous eight months in a hostel for the homeless. The initial tripartite discussions about the work he

was to undertake left him feeling dissatisfied. His employer had suggested he 'write letters for a fundraising initiative'[P], and he felt that if he was to benefit from the work based learning module he would have to take the initiative, and he therefore put forward a proposal to write a report on experiences of homeless people, and use this to support his fundraising letters.

He worked mainly on his own from a base in the college, a circumstance which made it necessary for him to 'be aware of my own commitment and motivation'[P]. He attended the placement to interview clients and give regular reports to his employers and he could ask for help when he needed it. It was in this area that the work based learning proved a valuable learning experience for him, because he came to realise that he 'generally failed to seek the advice of other people'[P]. Through the Friday support sessions he reassessed the way he approached situations, and acknowledged that 'although I have found it hard to adapt to a more flexible approach I do find that I tell myself off when I fail to take other people's views into consideration'[P]. This suggests that through the work based learning, David had recognised a tendency to hide behind his independence and had determined to use it in a more effective and autonomous manner.

Denise was a young student with some voluntary work experience, who adopted a mature approach to her rather demanding learning agreement, which involved producing a research report and doing general office work during her 4 week placement. She was aware of the fact that her own approach would determine the direction of her research, and that its completion required effective time management, and this became even more important when she became ill during the third week of the placement, and had to cope with a computer failure. At her own suggestion she extended her placement for an extra week, but unfortunately still failed to produce her portfolio on time, although this did not prevent her being awarded a 2.1 in her final assessment.

Observations in Denise's portfolio show that she viewed each setback as a learning opportunity, giving her 'insight into the benefit of time management'; adopting a 'common sense approach' to the more mundane office work she had to undertake,

recognising that she was 'helping to relieve the build up of pressure in the office', and learning to 'perceive needs' in order to 'pre-empt the build up of pressure'. She did not allow the stresses of her situation to undermine her determination, motivation and self-reliance, and in retrospect she could appreciate that the experience had 'instilled an effective, organised and disciplined approach to tasks undertaken.' [P]

Colin, the other young student in this group, had come to college straight from school and had no previous work experience, but managed to gain a great deal from his placement as a trainee golf professional. Because of the commercial nature of the enterprise he was closely supervised, but took every opportunity to use his initiative, and to learn new skills by observing and reflecting on his observation. He was encouraged to give advice to young club members on appropriate equipment, and suggested putting up a relevant display, which impressed his employer. He also observed his employer giving lessons, and was allowed to offer voluntary coaching sessions to new members on the golf course, where he 'emulated the professionals' teaching techniques' [P]. He also took advantage of the advice he was given by the professional, such as to give positive feedback and reinforcement, and used his own knowledge acquired on his college course to give sound advice and appropriate encouragement to young players. While taking advantage of the work based learning to develop his own abilities and expertise, he also showed a mature sense of responsibility to the club, and exercised effectively such independence as he could be allowed.

Colin was well motivated, having chosen his placement with a view to a desired future career, and similarly Edward undertook his work experience in a school because he believed it would help in his application for a post-graduate teaching course. He was a mature student and a single parent who had considerable prior experience of work, though none in education, and from the beginning he demonstrated his motivation and initiative. In response to the set learning objectives of finding out about the organisation he looked 'further than just the primary objectives' and gained 'a more in depth insight into what [the school] does as an organisation' [P]. He determined to organise two environmentally based projects for pupils, and recognised from the outset the need to use his initiative and develop strategies in order to get across the required knowledge to the pupils. He was confident of his own man-management, believing that

in the course of his working life this had been ‘sharpened and almost honed into perfection’[P]. All of this suggests considerable independence and confidence in his own abilities, as did his comment that his ‘title’ during the placement would have been ‘better worded as independent classroom assistant ... because I was always left to plan my own activities.’[P]

However, during the course of the placement he came to recognise that ‘success is always going to be as a result of effective collaboration with others’[P], and began to modify his plans for the projects, asking the pupils for their opinions and incorporating some of the ‘new ideas’ [P] that came from them, and demonstrated some awareness that effective independent actions must be sensitive to their context, and involve other people.

Like Edward, Susan was a mature single parent, but she had not worked for a number of years and had returned to education after a long break. The score of 1 allocated for development in independence during the work based learning was largely due to her having been effectively independent from the beginning, as her questionnaire responses indicated. She noted that ‘much of the work involved working autonomously - it was therefore important to have been self-reliant’[Q], and ‘the nature of the work involved working alone’[Q]. In her tripartite discussions she negotiated a project involving preparing a briefing on skin cancer: knowing that she ‘did not learn well simply by observing’ [P], she felt that having an identifiable project which she could work on on her own, and for which she was responsible would be a more valuable learning experience for her.

Susan was willing and able to ask for help from colleagues when she needed it, and gained confidence from their ‘encouragement and trust in my abilities’ and from being ‘left to work on my own initiative’[P]. This was further reinforced by the positive response from the general public at the Lord Mayor’s Show, for which, on her own initiative, she prepared a questionnaire to survey attitudes to smoking.

Although she demonstrated effective independence from the start of her placement, the evidence suggests that Susan benefitted from other people’s reactions to her ideas and

initiatives, which strengthened her confidence in herself as an independent person, and it is in the areas of self-confidence, social awareness and metacognition that there is more evidence of development during the placement.

Metacognition

Susan adopted an effective problem solving approach to her placement project, taking into account financial considerations, time management, and her target audience of interested professionals, and drawing up an action plan for advertising and arranging a symposium on skin cancer. This required her to develop quickly in at least two areas where she recognised weaknesses in herself; computing, and telephoning. She had acquired basic computer skills at college, and by asking for help from colleagues, and taking every available opportunity to use the computers in her placement, she was able to produce a range of professional looking flyers, information leaflets, evaluation sheets, programmes and letters.

Using the telephone appears to have been even more of a challenge for her, in response to which she called upon knowledge gained on the Friday support programme and ‘traced out a new behavioural strategy’ [P], which involved planning ahead what she was going to say, having relevant information at her side, and ‘also having alternative strategies to call upon in the form of a list of bullet points to refer to in order to avoid awkward silences’ [P]. She recognised that by ‘internalising these strategies’, as the placement went on she became an effective and confident telephone user.

During the work based learning Susan also made good use of organisational and time management skills and knowledge of health and diseases, all of which she had acquired at college, and by asking ‘who, what when and why questions’ [P] when she attended meetings during her placement, she gained new information and insights which she then used in her own project. Not only was she able to transfer skills and knowledge effectively, but she also appreciated being able to do so, and observed that this gave her the greatest satisfaction during and after her work based learning: ‘I enjoyed seeing how theory related to practice, reinforcing what I have learnt through practical application.’ [P]

At the end of Edward's work based learning he reflected that the placement 'has equipped me with skills that will be of enormous benefit both to myself ... and any potential employer' [P]; an acknowledgment that is the more remarkable because at the beginning he felt 'some pessimism towards just how much skills were going to increase' [P], believing that after many years of work all he could hope for was 'some experience of teaching.' [P]

Early on in his placement, by adopting an 'analytical approach' to his first learning objectives he gained a deeper insight into the work of a school. He went on to plan two learning packages for pupils, using the time management skills he had acquired during previous employment and developed in his college course to accommodate timetabling constraints. In designing the projects he used subject knowledge from his environmental science course, and devised creative strategies for making the topic accessible to pupils, including building the equipment for a weather station, putting the information in a story context for less able children, and providing them with a weather charting booklet. All of this was carefully planned and prepared in advance, but his planning was flexible enough to allow feedback from the pupils to influence the project.

The work based learning module as a whole appears to have been a positive experience for Edward, with the development of new skills being enhanced by his attitude, and his enjoyment being increased by his awareness that this was happening, so that by the end of the placement he had to 'concede defeat to myself as the whole experience of this rewarding and challenging work placement has been one of the best experiences of my life.' [P]

David also began his work experience somewhat unenthusiastically, having been allocated a placement in a hostel for the homeless, an environment which he had only recently left. However he quickly realised that his own experience could contribute to the report on homelessness that he was to write, and determined to include evidence from residents and staff in the hostel as well as objective data.

He found that the information he gained while researching for LO3 (economic and environmental aspects of the workplace) would be the 'fundamental base for the whole

project' [P] and developed his report using skills and knowledge acquired both before and during the placement. He found a computer programme which would analyse problems and find ways of solving them, and used this to develop his work; an approach which perhaps reflects his observation that during the Friday support programme he realised that he was 'not so much interested in theories of learning as I have been of [sic] putting theories into practice.' [P]

However, by the end of the placement, he appreciated the emphasis which the work based learning module placed on 'learning rather than working', and saw how the wide range of knowledge and skills that he had gained and used in the production of the report, would help with his final year dissertation, and in work in the future.

In contrast to David, Colin recognised from early on in his placement that work based learning was 'providing [him] with first hand experiential learning of academic subjects' [P], and as his work in the golf club meant that he was much more closely supervised than many of his fellow students, he was keen to put his theoretical knowledge into practice and demonstrate his competence to his employer. He also learnt by observing the club professionals, and when he was allowed to take junior coaching sessions himself, he saw this as a further learning opportunity, observing that there 'was more to be learnt at the golf club through my teaching.' [P]

Colin demonstrated that he was able to direct his own learning in the research he carried out into the organisation of the club for the first three learning objectives, and in his determination to increase his awareness of sports psychology when he returned to college, in order to gain 'a better understanding of how the golfing mind works' [P], which would in turn improve his coaching. The evidence suggests that as a young man in a fairly constrained work placement, Colin made the most of every learning opportunity the placement offered.

Denise also took full advantage of her work experience, learning about research work during the course of her four week placement. Because of the time constraints she used her knowledge of time management and research theory and adopted a disciplined problem solving approach to the production of a report which was to be used by the

City Council. She called on her previous experience of work in the voluntary sector to help her ‘assess the existing community facilities and establish the need for further development in this field’ [P], which required her to ‘analyse, identify any difficulties and provide recommendations and possible solutions.’ [P]

She recognised the value of her theoretical knowledge of research techniques, but was also aware that ‘although there is a basic, accepted framework for conducting and assessing surveys’ [P], in practice any research has to be tailored to the project in hand. In this case, because interviews were carried out throughout the four weeks, she had to adopt a strategy of ‘ongoing evaluation and adjustment of information’; an activity which underpins the development of metacognition.

Self-actualisation

The evidence indicates that within the constraints of a short placement, Denise gained considerable confidence and self-esteem as a result of being given the responsibility of undertaking a worthwhile project, in the course of which she exercised self-discipline, developed her confidence in communicating with a variety of people and received positive feedback from her employer.

In her portfolio she reports that at the beginning she was ‘unsure’ and ‘wary of the placement’, but, motivated by the trust which had been put in her to undertake a significant project, and realising that she would be ‘representing the company’s image’, she recognised the need for ‘discipline, discretion and diplomacy’ and worked to improve in all these areas. As her report took shape she ‘felt a tremendous sense of accomplishment’ [P], which was reinforced by her employer observing during her assessment that ‘this student is a positive member of my working team’, and by the end of the placement she felt confident that she could deal with ‘all age groups and those in a position of public authority in an effective manner.’ [P]

Being given specific responsibilities was an important factor in the development of Colin’s confidence and self-esteem as his placement progressed and he was allowed to introduce successful initiatives such as the junior equipment display, and junior coaching sessions. He was also encouraged by positive discussions with the golfing

professional, particularly when the professional agreed that theoretical knowledge of sport psychology was 'underestimated'[P]. Such support for his own views gave Colin the confidence to introduce some of this theory into his coaching sessions, and his self-esteem was further enhanced by the praise he received for the way he tackled the lessons. Although the initiatives were on a small scale, because of the commercial nature of the placement, his successes left him well -placed for the future to act on and develop his own ideas with confidence.

The choice of placement for David, in a hostel for the homeless and 'those considered at risk' [P], was a poor one from the point of view of enhancing self-esteem, considering that he had not long before spent eight months living in just such a hostel, run by the same organisation. His response to this placement was to observe, 'my thanks initially were muted!' [P]. However, because he was able to spend much of his time working from college, he was able to come to terms with the situation quite quickly. He had no difficulties in working with the hostel residents, having been in their situation, and his self-esteem was enhanced by recognising how he had moved on, but he was less confident in dealing with those in authority, partly because of his reluctance to relinquish his independence and 'adopt a more flexible approach'[P]. However, by using the self-knowledge he had gained during self-assessment sessions at college he was able to make progress in overcoming his weaknesses in this area, and work collaboratively. Consequently he was able to observe, 'the result was a better version of what I could have achieved on my own (something I would not have admitted to in the past).'[P]

The evidence suggests that David started from quite a low state of self-actualisation, but by reflecting on his own development, making a conscious effort to overcome his weaknesses, and achieving a successful outcome (reflected in his assessment grade of 2.1) his confidence and self-esteem were strengthened as a result of work based learning.

Edward also began his placement with some reservations. As a single parent he reflected that 'I sometimes felt with all the stress I was under at home I really did not need to be out working full time'[P], and that in order to overcome this 'I had to

examine my emotions and reflect on how I felt in a positive way' [P]. His portfolio demonstrates that he did this throughout his work experience and learnt 'to accept the challenges of the placement' [P]. When he began to involve the pupils in determining the direction the projects would take, his own confidence grew as their's did, and he felt able to experiment with different teaching strategies. By the end of the eight weeks he was able to observe that 'my confidence has grown alongside my new improved skills. I feel that it has all been an extremely good experience in increasing my personal potential' [P], and he also noted that it had given him the confidence to challenge himself; a remark which suggests that his self-esteem had also increased, and that he had gained in self-actualisation as a direct result of undertaking the work based learning module.

Similar gains were evident in Susan's portfolio. One of her reasons for taking the module was that she 'hoped to gain confidence in the workplace' [Q], and clearly this was an area where she experienced problems. At the start of the placement she was beset by feelings of 'immobilization and self-doubt' and actively avoided making telephone calls; if she had to, she sought 'an empty room where I could not be overheard.' [P]

She realised that if she was to meet her learning objectives she would have to deal with these problems in a positive way, and by 'adopting and internalising' [P] strategies learnt in the Friday sessions and through reading, she began voluntarily to take on activities which challenged her, such as using the telephone and working on computers. Her increasing success in these areas enhanced both her confidence and her self-esteem, so that when she began to plan a conference where she 'could not avoid situations which made me feel uncomfortable' [P], she was able to cope, and make a success of the enterprise.

While recognising that challenging situations in the workplace had helped her development, Susan also acknowledged the part played by the framework of the work based learning module when she observed 'learning is not something that becomes evident from work experience alone; it involves self-questioning; analysis of feelings and reflection on the different experiences encountered.' [P]

Social Awareness.

The development noted in Susan's self-actualisation illustrates the inter-relationship between confidence and self-esteem, and social awareness and social skills. Awareness that her communication skills were poor affected her confidence and self-esteem which in turn created difficulties with interpersonal skills. Fortunately for her she had a positive relationship with her employer, and supportive colleagues in the workplace, so that 'help was always on hand'[P]. The fact that these people trusted her with a responsible project, which involved communicating with professionals, gave her the confidence to adopt appropriate strategies to improve her social skills, and being accepted as a member of a team allowed her to recognise the contribution that she could make to the team, as well as the important support that it offered to her. She believed that her learning objectives could not have been achieved 'without the help and support of my work colleagues, they were encouraging and trusting ... and willing to help at all times' [P]; an acknowledgment which demonstrates a keen social awareness and appreciation of the value of good interpersonal relations.

Even though her placement was for only four weeks, Denise was aware from the beginning of the need for appropriate communication skills, both in researching and presenting her report, as she was working in an 'organisation to whom accuracy and protocol is of great importance'[P] and, on their behalf, was interviewing members of the public, which, she recognised, called for 'diplomacy'[P]. This sense of responsibility towards the organisation and the public is typical of the social responsibility that characterises effective autonomy, particularly when it is combined with a sense of responsibility for self, such as this student also demonstrated, when she recognised that in order to foster 'a friendly and supportive attitude' among the staff, it is incumbent upon the student to develop 'effective relationships with your peers and those in a position of authority.' [P]

Not only did Denise herself observe 'a marked improvement' in 'interdepartmental co-operation and communication'[P], and increased confidence in her ability to 'deal with all age groups and those in a position of public authority in an effective manner'[P], but in his evaluation her employer noted 'positive relationships formed with members of

staff beyond those in immediate working environment.’ This achievement is perhaps more remarkable for the fact that because of her illness and the short placement, this student was under considerable stress for most of the time.

Colin also had to overcome the disadvantages of being in a somewhat restrictive placement, where he was closely supervised by his employer, but he too showed development in social awareness and reciprocal responsibility in dealing with both his employer and the golf club clients. Through professional discussions with his employer, and observing his interactions with clients he learned and developed appropriate communication strategies. These included the use of non-verbal communication, the importance of which he recognised when he commented, ‘non spoken messages do have an impact ... a fact to which the teacher should be alert.’ [P]. Colin summed up his development in this area when he wrote that his experience had ‘provided me with a greater understanding of social interaction, increased my awareness of my own behaviour and its effects upon others, to generally contribute to an increased social awareness and interpersonal competence.’ [P]

As Colin found, for anyone new to the teaching situation, there is a lot to be learnt about communicating effectively with learners, whether they be on the golf course or in the classroom. Edward recognised this, and took advantage of his placement to try out different strategies for putting ideas across to the pupils. He found that by asking their opinions, and letting them contribute to the development of the project, for example, not only was he demonstrating that he ‘valued what they had to say’ [P], but he was also providing himself with ‘an exercise in improving my communication skills.’ [P]

Again like Colin, Edward also showed himself willing to learn from professional colleagues. He quickly realised the necessity of sharing his ideas with them in order to ensure continuity for the pupils, and he valued their knowledge and advice, observing that he gained ‘more knowledge by accepting the rich blend of opinions that are open to me from many different people that I worked with.’ [P]

Perhaps because of his age, or because he was working in a somewhat constrained environment Edward did not show the same scale of development as the others in this

group, but he nevertheless developed useful communication skills and also recognised the importance of social awareness and reciprocal responsibility for effective performance in the workplace.

David's development in this area was also constrained, in his case by the fact that he had to overcome his initial doubts about his placement in a hostel for the single homeless, and that one of his coping strategies was to work from a base in college and visit the placement only when necessary. However he realised that he could not 'complete the tasks set without gaining in depth knowledge' and therefore made efforts to establish positive relationships with both the staff and the residents. Despite being aware of 'an underlying initial cynicism' in some staff members and a 'certain amount of suspicion' [P] among the residents he determined to seek their opinions, and gradually won their confidence. He recognised that the Friday support sessions helped in this by showing him how he 'subconsciously communicated with people ... and failed to seek the advice of people in certain situations' [P], and he referred in his portfolio to the fact that in the past he would not have admitted that consulting others might produce a better report, whereas now he realised the advantages of taking other people's views into account.

The evidence from the five students in this group indicates that, like those in groups 1 and 2, they had all gained in knowledge, skills and understanding as a result of undertaking the work based learning module, and all of them, although from different starting points, had moved along the road to becoming effective autonomous individuals.

The evidence from these 12 students is, I believe, sufficient to demonstrate a variety of ways in which work based learning helped the students to develop the capacities necessary for autonomy. Evidence from the students in groups 4 to 8 was analysed in the same way, and suggested that 31 of the 34 students had developed in all of the capacities and become more autonomous. Only three students showed no increase in autonomy. In order to understand the possible reasons why, for some students, work based learning was less effective in promoting autonomy, it is useful to consider in detail the evidence from the 11 students in groups 9 and 10.

GROUP 9 (Average Score = 1.00)

Six students, were allocated an average score of 1, and although each of them provided evidence that they had developed to some degree in at least three of the four characteristics of autonomy, none of them appeared to be functioning more autonomously after their placement than they had been before.

Independence

Of the six students in this group, Olivia was the only one who did not appear to have become more independent as a result of undertaking work based learning. This was perhaps due to the fact that she was a young student sharing a placement with two others, and working on a joint project researching into homelessness in the city. When their employer mentor became ill, the other students, and in particular Irene, assumed responsibility for the project, and as Irene acknowledged, tended to overshadow Olivia. She herself admitted that her self reliance 'may have slackened off a bit due to its being a team report' [Q2], and although she had determined early on that she 'would have to use my own sources of information getting if my placement was to be successful' [P], she in fact found the research 'extremely difficult' [P] and only managed to find the necessary information when her colleagues gave her relevant references. Olivia interpreted this positively, as reflecting her realisation 'that you have to ask other people to help you sometimes in order to solve problems' [Q2], and from another student such a statement could indicate the kind of mature independence required for effective autonomy. However, in Olivia's case the weight of evidence suggests that she relinquished too much independence, as she recognised herself when she remarked that 'being the youngest of my team may have proved to be a disadvantage.' [P]

Olivia's acceptance of her somewhat subserviant role in the team as a 'disadvantage' suggests that she did not recognise it as the challenge which it could have been. Similarly, though for quite different reasons, Penny did not make the most of the opportunities offered by her placement for helping her to develop her abilities to work as a member of a team.

Penny was another young student who shared her placement with a colleague, undertaking research into assaults on staff in a hospital psychiatric department, but where Olivia was disadvantaged by her failure to assert herself with her colleagues, Penny's failure to develop towards greater autonomy was partly due to the fact that she was too independent and self-reliant, and found it hard to work effectively as part of a team. She was well-motivated and committed to the project, and although it had been agreed that the students would focus their research on different departments, she arranged interviews, organised meetings and issued questionnaires without reference to her colleague, and it was apparent when I visited the placement that this had caused some ill-feeling. It also meant that Penny's work was less effective than it may have been, as staff in one department refused to complete the questionnaire because they believed it 'to be of a very victim-blaming nature'[P]. However, Penny retained her determination to achieve her goals, and was prepared to discuss her work with her colleague when it was necessary, which suggests that there had been some development towards a recognition of the need to compromise in order to achieve a successful outcome.

As the only student in her placement, in a centre for adults with cerebral palsy, Elaine had none of the problems experienced by Olivia or Penny. She was a mature student who hoped that her placement would provide 'self-satisfaction in being able to help people to learn' [Q1]. Her role was that of general assistant, but she was given the responsibility of working on a one-to-one basis with some of the clients, helping them with everyday living skills and instructing some of the more able in using a computer. At other times she worked with groups of adults, teaching them addition and subtraction and how to handle money. In all of these activities she demonstrated self-reliance, working without overt supervision, and developing appropriate teaching strategies. However, for the most part she was undertaking tasks which were assigned to her, and therefore had little opportunity to demonstrate initiative or independence in determining the overall direction of her work.

George, on the other hand, demonstrated his competence, initiative and independence from the outset, and therefore had very little room for development in his placement, which allowed him the scope to devise, implement and disseminate his own project. He

was working in a computer company, and 'had the advantage of looking at this company before the period set aside for work experience' [P]. The greatest challenge confronting George was to devise a useful project since, as he noted, 'I have worked ... for a period of over thirty years and it is rather difficult to look for outcomes that have not to some extent figured in many aspects of my past experience' [P], but as the company apparently allowed him complete freedom in organising his own work, he faced no obstacles when he decided on his project of producing a control sheet and spread sheet which would facilitate more effective monitoring of its daily activities.

Like George, Paula was mature student whose placement, in a heritage centre, was well-suited to her past experience in the retail trade, and her academic studies in History and English. She was well-motivated and showed initiative in her choice of project, researching into the development of the centre, work which she 'was left to carry out ... at my own pace, but if I needed assistance I would have received it' [Q2]. She also showed her initiative when she decided to prepare a report on possible improvements for the heritage centre shop, using her past experience and also 'comparing the gift shop with the shops at other centres' [P]. While her placement provided opportunities for Paula to exercise her independence and demonstrate her initiative in a new context, she encountered no obstacles in her work, and provides little evidence of having reflected on her capacity to manage the situation she was in.

Anne was another four week student working in the drama group with Cheryl and Barbara, and like them she found that the interpersonal difficulties that the students experienced affected her ability to achieve all she had hoped for in the placement. At the beginning she was well motivated, and in early discussions about the production had 'lots of ideas', but soon found that 'it did not seem as if we were going to be able to use them' [P]. However, Anne asserted herself and having 'decided to be a tree instead of an animal' [P], she did not allow her decision to be overturned by the artistic director, but developed her role into an important element in the production. Although she exerted her independence in this instance, and showed initiative in the way she developed the part, as with the other four week students in this placement, the circumstances made it difficult for her to take advantage of the opportunities for personal development which others found during their work based learning.

Metacognition

There was little evidence of metacognitive development in any of the students in this group, although only Elaine scored 0. The others all demonstrated that they had used problem solving or creative skills, or been able to make use of previous knowledge and skills in the course of their work based learning, and therefore scored 1.

Although Anne showed little evidence of reflecting about her learning during the placement, her account of her work suggests that she used her theoretical knowledge of drama production and her own creativity to contribute useful and imaginative ideas for the production, particularly in the area of set design. She suggested, for example, that 'the owl's costume should be made of light responsive material and the night scenes could be lit by ultra-violet light' [P], and although budgetary constraints meant this idea was not adopted, other, less expensive suggestions were incorporated and contributed to the eventual success of the production.

Paula, in her much more congenial placement, took advantage of the opportunities it offered her to apply both her academic knowledge and her past experience in a new situation. In investigating the history of the heritage centre she used research and analysis skills, and applied what she had learnt about report writing to her work on the gift shop, as well as using 'interviewing techniques throughout my placement' [Q2]. Comparing her work in the gift shop to her previous retail experience, Paula 'found it interesting adapting to new methods' [P] and felt that the experience she had gained, particularly in research techniques, would help with her dissertation when she returned to college.

As with most of the students in this group, George's portfolio was weighted towards the descriptive rather than the reflective, and provides little evidence on which to assess any metacognitive development. However, in deciding upon the focus for his work, he 'chose issues which ... would be of benefit to the company and would allow me to make a positive contribution to the company's operation' [P], and he was also able 'to see by experience how the computer and its software can be used ... and to apply some of my knowledge of software applications to real life situations' [P], which suggests that he was able to reflect on the value of the eight weeks as a learning experience.

Penny's reflection took the form of a 'running report' on her placement and the research project she was undertaking with a colleague. She decided that this would be useful because early on in the placement she had found that her original learning agreement was too complicated and felt that 'what was expected of me whilst on my placement was somewhat complex' [P]. She therefore modified the agreement so that she could 'create new opportunities and challenges for my learning process' [P], and felt that the report would allow her to explain the changes to her assessors, and also help her to keep control of the project. She maintained that her academic knowledge was valuable in giving her an insight into the organisation she was working for, but admitted to having 'much difficulty in incorporating the skills' [P] learnt during the support programme into the placement. It is clear that Penny gave considerable thought to her work based learning during the course of the placement, but the shallowness of her retrospective reflection indicates that perhaps she did not make the most of the opportunities it offered for experiential learning.

Olivia noted that her 'original perceptions of the placement were very negative' [P], and although she does not explain why this was so, the fact that she subsequently found herself overshadowed by her more forceful colleagues cannot have helped. Before she began her work based learning she had believed that homelessness was 'founded on family breakdown and society in general'[P] but by the end she 'began to realise that many other factors were involved'[P], although she does not say how far this change of view was brought about by the work itself, or by the need to accommodate to the views of her politically aware colleagues. She recognised that research techniques needed in the field were different from those she had used at college, and came to appreciate the need to be selective and to present information succinctly. Olivia was also able to assess critically the final report, and suggest that it could have been improved if there had been time to conduct a case study to 'give us a better insight into how people who are homeless feel' [P]. Although she maintained that she used her mid-placement assessment 'to help reflect upon my learning during the placement' [P], she does not develop the outcome of these reflections, and similarly, while she acknowledges that the placement was 'most beneficial'[P] because skills learnt could be taken back to college and 'help me to achieve desirable grades and hopefully help

beyond into a working environment' [P], she does not specify what new skills she had acquired or how they might be used in a different context.

Although most of the students in this group failed to articulate clearly the nature of the learning that had occurred during their placement, there is evidence of some reflection and some metacognitive development. In Elaine's case, however, not only is there no reference to any problem finding or problem solving activity, since for the most part she used the materials she was given to work with the individuals or groups of handicapped adults to whom she was allocated, but she does record her inability to find any relevance in the placement for her previous experience or knowledge. She was unable to draw on her previous experience 'because this was in a hospital where people were in locked wards and had very severe difficulties and disorders' [P] and she 'did not find the support programme on a Friday much help' [P]. Although she was working on computers with the clients, she felt she had little opportunity to develop her knowledge or skills from her college studies in the subject, and did not refer at all to her course in biology which may have helped her to understand some of the handicapping conditions she encountered. Consequently, while Elaine did benefit from her work based learning in other areas, it appears not to have made any contribution at all to her metacognitive development.

Self-actualisation

In this area there is evidence that Elaine, and all the others in this group, did develop during the course of the placement, although only Olivia scored 2 with the rest all scoring 1.

Elaine's development in self-awareness centred on the fact that she had been 'always slightly wary of people with disabilities' [P] but as result of working with them, and learning about their lives, she overcame her slight prejudice. She also appreciated that if they asked for specific help it should be given 'as per their instructions' to avoid causing offence, and that it was not always easy to keep all the members of a group 'happy and under some sort of control' [P]. Elaine also felt that by recognising these needs in the clients she had 'learnt to have a lot of patience and self-control' [P]. She appears to have been successful in the placement, and while she makes no reference to

increased confidence or self-esteem, her increased understanding of people with disabilities and her ability to work with them must have contributed to some growth in this area.

Although Olivia's placement might not seem to offer much opportunity for self-actualisation, in that she was nervous from the outset and was overshadowed by her colleagues, in fact the evidence suggests that in this area she was able to reflect positively on her experience and learn some valuable lessons which could contribute to her capacity for demonstrating autonomy in other situations. She recognised, for example, that 'reflection is one of the hardest skills to develop and needs to be tackled with careful attention' [P], and also that there may be things she had learnt that she would only become aware of 'when I am in the same situation (and) can then properly reflect.' [P]

Olivia found the original learning outcomes 'intimidating' [P] and believed that at the start of the placement her personal confidence and communication skills were 'very poor' [P], but when her employer became ill the team had to take the initiative and used the learning outcomes as guidelines only; a situation in which Olivia felt more comfortable. She also found that working in the team helped to develop her communication skills both with her colleagues directly and, by observing them, in her dealings with professionals and people in authority. Although she relied a great deal on her colleagues in carrying out the work, and to some extent in shaping her views about homelessness, her self-confidence was enhanced by the realisation of 'what I am actually capable of achieving with my peers' [P], and she felt that her self-assessment skills, which had been 'very limited' [P] had improved, with the realisation that 'assessing myself through other people's suggestions about my work or manner is good practice.' [P]. This last statement suggests that Olivia was still very far from being autonomous and still lacked confidence in her own judgement, but her ability to reflect critically on her performance in the placement and to draw useful lessons from it suggests that she had begun to develop a realistic awareness of her strengths and weaknesses which would be of value to her in the future.

Penny stated in her portfolio that she did not think that it was 'wrong to ignore my weak points and concentrate solely on my strong ones' [P], but the evidence suggests that a more balanced approach to her self-assessment may have produced a more realistic outcome. As it stands there appear to be inconsistencies between her observations about herself and her actions in the placement. For example, at the beginning she had 'some doubts concerning whether I could cope in a proper working environment' [P]. She referred to her shyness and to the fact that 'people who had noticed this took advantage of my good nature' [P], and she maintained that she lacked assertiveness. However, when discussing the lack of co-operation she encountered from one department in the course of her research, she notes that she had 'on several occasions suggested to the team we should use the persistent method, as I believe that you do not get anywhere otherwise and it has always worked for me'[P]. Also, while acknowledging that her failure to inform the others in the team about what she was doing was a weakness, she immediately justified her actions by suggesting that 'it would go against me if I was seen to be too dependent'[P]. Finally when discussing her assessment presentations, which a shy unassertive person might be expected to see as something of an ordeal, she observed only that after the mid-placement assessment she had been 'fairly disappointed ... because I had spoken too rapidly and produced very little eye-contact' but that in the final assessment she 'spoke both concisely and informatively.' [P]

While Penny evidently did grow in confidence as a result of her work based learning, the inconsistencies in the picture she presents of herself suggest that she had not yet developed in self-actualisation to the point where she could admit her weaknesses, yet retain a sense of self-worth and self-esteem.

With a successful business career behind him, George had no problems with confidence or self-esteem, and this was reinforced by his success in achieving his aim of producing a worthwhile project which would be of value to the company and also 'help me to a greater understanding of how the company functioned' [P]. However, although he does not say so explicitly there is a suggestion in George's portfolio that his work based learning contributed to his self-actualisation, when he reflects that his 'first response would be to say, for the mature student, the time would be better spent in

college, completing an extra module. But in the light of my own experience ... this may not be the case.' [P]

Paula also was confident when she began her placement and, having worked for several years in the retail trade, she felt that she had little use for the Friday support sessions, and 'would have preferred to have used the time to prepare for presentation assessments', but like George she believed that taking the work based learning module had not been a waste of time and that she had benefitted from it. She noted that her confidence and self-esteem were enhanced when she was asked to take charge of the gift shop for a weekend while the manageress was away, and although she does not provide any evidence of increased self-knowledge, she clearly felt satisfied with the outcomes of her work based learning, and was intending to return to the heritage centre to work during the vacation, because, as she said, 'I loved it.' [P]

In complete contrast to Paula, Anne struggled to gain any benefit from her four week placement with the drama group, and the fact that she managed to maintain a positive attitude despite the difficulties she encountered contributed to her feelings of self-worth. Before she began the placement she had a negative attitude to the whole idea of work based learning, commenting that she had 'come to Chester to do a degree. If I wanted to do work experience I would have chosen a sandwich course' [Q2].

However, once the learning agreement had been established, she was committed to achieving the outcomes. She managed to maintain her self-esteem in the face of frequent rejection of her ideas by depersonalising the issue, and reflecting that in a large theatre company the cast would not have any power to make decisions and therefore this 'made our experience more realistic. Here we were learning the constraints of working for a large organisation' [P]. Anne did take one decision when she changed her character from an animal to a tree, and she remained convinced that this had contributed to the children's understanding of the issues behind the play, and she demonstrates her sense of self worth when she argues that had some of her other ideas been implemented it would have been even more effective.

Social Awareness

Once again the quality of reflection demonstrated by this group of students is poor. None of them focus in any depth on their personal development, and some of the evidence for development in particular characteristics is from inference rather than the students' own observations. On this basis, all the students were allocated a score of 1 except Elaine who scored 2.

Elaine's development is marked by her increasing understanding of people with disabilities, and in this respect she referred to her placement as 'a real eye opener' [P]. From being 'slightly wary' [P] of people with disabilities, she came to recognise that they 'are not different inwardly than anyone else I know' [P], and went on to appreciate their different needs and problems from a perspective of much greater understanding, remarking on the 'amount of patience a disabled person needs when trying to communicate'[P]. Having recognised these needs Elaine adapted her approach to the clients accordingly, demonstrating more patience herself in her interactions with them, and trying to ensure that in group sessions each one's needs were met.

Like Elaine's, Olivia's placement brought her in to contact with the needs of a disadvantaged group, but perhaps because she was researching into the issue of homelessness, rather than interacting with homeless people directly, there is less evidence of increased knowledge of the people themselves. She did, however, deepen her understanding of the issues surrounding homelessness, in part through listening to her colleagues who viewed the problem from a political perspective. Olivia herself felt that she had developed in her ability to work as a member of a team, and although the evidence suggests that she was rather a subordinate member, she demonstrated an understanding of 'good team management' [P] when she noted the importance of the fact that by the end of the placement she was able to 'be critical of myself and my team members'[P]. She was also aware of the need to take responsibility for her own share of the work, and although she sometimes had to ask for help in achieving this, she took seriously her role as one of the team.

Penny believed that success in her placement would 'ultimately determine my confidence and my future working life - such as interacting more with people'[P], but in assessing her social development similar inconsistencies appeared in her portfolio as were evident in relation to her self-actualisation. She states that she found the atmosphere of the open plan office where she worked to be relaxed, and the staff 'friendly, interesting and co-operative'[P], so that 'it did not take long for me to fit in ... which meant that my independence, self-responsibility and initiative were to increase quickly' [P]. Yet elsewhere she refers to one department where the staff were unco-operative, and to a particular member of staff who made her feel 'undervalued.' [P]

Penny was determined to make a success of her work despite these setbacks, and demonstrated that she was aware that she was responsible for her own actions, and aware of the importance of producing a worthwhile report for her employers. Also, through mixing with a variety of professionals Penny did, as she had hoped, feel that she had increased her communication skills. However, the fact that she took an independent approach and carefully guarded her own part in the work of the research team, suggests that she still had some way to go in developing her ability to work effectively as part of a team.

As in the other areas, the evidence suggests that George had little room for further development in social awareness. Of all the students in the cohort he was perhaps the most autonomous at the start of the placement. He does not refer to social or communication skills in his portfolio, and maintained in his questionnaire response that he had no difficulty fitting in to the workplace. However, his work based learning experience did provide him with the opportunity to demonstrate his capacity for taking responsibility for his own work, and acknowledging his responsibility to his employers, in so far as he chose to undertake a project which would be mutually beneficial. In his portfolio he appears to appreciate the importance of such mutuality for the success of his project, when he observes, 'as things turned out I had the freedom to choose issues which I felt needed to be tightened up and received the support of the company to proceed along the lines selected' [P], and it is this kind of awareness which helps transform learning from experience into experiential learning.

Like George, Paula had a successful placement which did not present her with any particular challenge. Having worked with a diverse group of people while undertaking historical research and working in the heritage centre shop she valued the opportunity it had given her to 'mix with a wider cross-section of people than in college life' [Q2]. She found the staff at the heritage centre to be helpful and friendly and soon felt part of the team. As well as appreciating the need for herself to fit in, she also recognised the importance of co-operation among all the other staff 'for the park to operate without friction' [P]. She took seriously her own responsibility in this area and exploited her natural ability to 'keep everyone happy' [Q2] by developing an ability to 'pour oil on troubled waters' [P]. Again like George, the evidence suggests that the value of work based learning for Paula in this area was the opportunity it provided for her to articulate as well as to demonstrate her awareness of social responsibility.

The combined evidence from all the students with whom Anne shared her placement suggests that a sense of social awareness was the main factor which saved the production from being a total disaster. Despite their initial inability to work as a team, the realisation that they had a responsibility to themselves to fulfil their learning outcomes and a responsibility to the schools and the children who would form the audience, brought them together in time to achieve a successful outcome. Anne recognised the need to do what she could to keep the cast working together and 'helped out in most aspects of the project' [P]. She shared her ideas about the set design with Cheryl, and in spite of Anne's 'deplorable artistry ... with Cheryl's skills a set was produced' [P]. Anne also developed her own tree character to be as effective as possible, and during the workshop sessions she took responsibility for some of the less able children who came to her for individual activities, so while acknowledging the difficulties she was able to conclude that she had achieved her own aims, helped to achieve the aims of the group, and felt that she had been 'an effective team member.' [P]



GROUP 10 (Average Score = >1)

Out of the cohort of 57 students only five were given an average score of less than 1, and were judged to have made no progress towards becoming more autonomous. Even for these students there was evidence that their work based learning had helped them to develop in at least one of the four prerequisite characteristics.

Independence

Of the students in this group, only Keith showed any sign of development in independence, and even in his case this related only to instrumental independence. He had several years of work behind him and was already self-reliant, well motivated and capable of acting independently. His work placement with the Food Hygiene Inspectorate was relevant to his studies, and he did not appear to have been challenged at all, because he 'knew what goals I could achieve in the work placement and set out to achieve them' [Q2]. He successfully undertook a project which 'necessitated planning, research and time management' [P], and when he accompanied members of staff on official inspections he showed initiative by conducting his own 'silent inspection' [P] and afterwards comparing his observations with the official view. However, as part of his placement he was given the opportunity to attend a Food Hygiene course and was allowed to enter, and pass, an examination for the Institute of Environmental Health Officers, which suggests that he had developed additional knowledge and skills which would contribute to his instrumental independence, and would be, as he recognised, 'invaluable when in the future I apply for relevant employment.' [P]

There was no evidence to suggest that the remaining four students had increased in independence, although the reasons for this were different in each case.

Frank's portfolio, and his questionnaire responses, reveal more strongly than anything else his deeply held Christian beliefs. His placement in a Christian Aid Centre was clearly relevant for him, but he seems to have had little input into the nature of his work. He was 'informed' [P] what he was to do, and 'found it very hard therefore to get to grips with the work which was very much beyond the scope of my experience

and understanding' [Q2]. Although he was well-motivated towards the placement, his statement that he developed in self reliance and 'more often than not I surprised myself in what I could do on my own' [Q2], is not supported by his portfolio. Other questionnaire responses suggest that despite his difficulties with the work itself, because of his faith he 'worried less or not at all when under extreme pressure'[Q2] and did not feel the need to exert himself because 'God was involved on the work and staff I couldn't be' (sic). [Q2]

Where Frank may be said to have abdicated from the challenge presented by his work based learning, Margaret deliberately chose a placement where there would be no challenge, and spent eight weeks in a donkey sanctuary where she had been previously on work experience. She admitted that she 'lacked confidence'[P] but that the placement 'made me feel relaxed'[P]. It was unfortunate that her work based learning was interrupted by illness, and consequently her learning outcomes, which had been intended to develop on her previous experience, were not all achieved. Margaret in fact spent most of the time caring for the donkeys as she had done previously, and her own assessment, that she had developed in self-reliance 'not at all' [Q2] is supported in her portfolio evidence.

Rosemary also chose a placement she was familiar with, in the Environmental Health Department where she had been employed before going to college. Her role was largely observational, gathering information about the different departments, and the only reference she makes to independent activity was that 'it was up to me how I decided on the information I required and as each section was differently managed I had to adapt to the situation accordingly' [P]. Perhaps because she was not allowed to undertake any practical work, 'in case of accidents' [P], Rosemary had little opportunity to demonstrate any initiative, beyond reporting that when she was placed in a department which 'proved rather slow ... I used my time effectively by concentrating on writing up notes for the portfolio' [P], and for the same reason she 'did not gain any new skills in the manual sense' [P]. Although Rosemary was evidently capable of working independently before she began her work based learning , there is no evidence that she developed in independence as a result of it.

Faye's placement in a special school would seem to have been an appropriate choice, given that she had worked previously in a similar school, and was studying Health and Community Studies, and her original learning agreement involved her in investigating the biological aspects of cerebral palsy and their effect on the pupils' education. However, she soon found that 'the assignment was too complicated' [Q2], and when she sought help she became more confused because 'everyone told you different things' [Q2]. When it was suggested that, like the other two students in the same placement, she might take a more active role in the classroom, she felt unable to do so, because she did not have teaching experience. Fortunately, her tutor and employer recognised the difficulties she was having, and amended her learning agreement to include a project which involved interacting with the pupils to produce a wall display of their favourite stories. Even here Faye lacked the confidence to undertake the work on her own, and 'ideas of how to go about it were discussed with the teacher and nursery nurse' [P]. She did, however, achieve a successful outcome to this project and felt her confidence increased accordingly, but this came too late to have any effect on her capacity for independent activity.

Metacognition

This is the one area where all five of the lowest scoring students showed evidence of some development, which may be attributed to the emphasis that was placed on reflection as part of the learning experience for students taking the work based learning module.

Faye apparently lacked both the confidence and the initiative to demonstrate any problem solving or creative skills during her placement. If the production of the wall frieze required either of these, she did not acknowledge the fact. However, in her portfolio Faye was able to make some connections between her college work and her placement. She stated that her investigation of cerebral palsy from a biological perspective would be informed by her college studies in neurophysiology, but she had such difficulty with the project that she did not develop this connection beyond a simple statement of its existence. However she did recognise the value of the support programme, and was pleased when she redirected a disruptive pupil back to his work by using eye-contact, a technique she had learnt during the session on non-verbal

communication. In retrospect she also acknowledged the value of the session on time management, observing that during a particular activity ‘time was not managed effectively. In the future ... it would be beneficial to first find out the child’s ability, then time would not be lost.’ [P]

The observational role which Rosemary adopted in the Environmental Health Department provided her with little opportunity for problem finding and solving, but like Faye she was able to make direct reference to the relevance of both the support programme and her academic studies to her placement. Referring to the support programme, she maintained that ‘whilst observing people’s actions ... I began to relate a lot of the psychology to their actions’ [P]. While she was in the pollution control section, staff were investigating an outbreak of ‘compylobacteria poisoning due to birds pecking milk bottle tops’ [P] and she found she was able to understand the steps they were taking to control the problem by referring to her studies in environmental science, which also helped her to appreciate the relevance of the environmental monitoring she observed. Rosemary also recognised the value of actually seeing theory translated into practice, observing that ‘it proved far easier to understand the procedures they followed on inspections or monitoring than when explaining it in the office.’ [P]

Like Rosemary, Keith felt that information gained from his course module on pollution increased his understanding and knowledge of work being done in his placement, and he also recognised that his previous experience of work gave him ‘the appearance of confidence and competence which was useful in gaining the trust of the office staff’ [P] and enabled him to ‘ask pertinent questions of the officers and staff’ [P]. He acknowledged that the support programme ‘provided some stimulating ideas in interpersonal psychology’ [P], but his portfolio showed no evidence of his having applied any of them, and elsewhere he refers to ‘some of the psychological ‘tricks’ being useful - but love, joy, peace, patience, kindness, faithfulness, gentleness and self-control will always win through in the end’ [Q2], suggesting that he preferred to follow his own path.

Although Margaret considered the question of transferable skills, she ‘found it hard to relate directly my academic subject knowledge with things I intended to learn on work based learning due to the nature of my placement’ [P]. She suggested that her studies on children with special needs might prove relevant, but this was before the placement began and her illness meant that she abandoned some of her learning outcomes, and similarly she had no opportunity to use knowledge gained from the support programme. She did, however, acknowledge that her BTEC² in animal care, and her previous experience of working in the donkey sanctuary helped her in her work with the animals.

Frank was perhaps more fortunate than the other students in this group, as his placement provided him with opportunities to utilise his knowledge and skills from his college courses in Art and English, and also to develop his ideas creatively in ‘researching, designing and producing finished pieces of work to be integrated within a key stage two education pack’ [P]. He was also confident that his subsequent college work would benefit from ‘this bout of journalistic, illustrative artistry’ [P]. As he was not used to working with or for children he visited a school, where he ‘learned from experience that children cannot easily be fooled ... I learnt and continue to learn to write as one would speak to 7 - 11 year olds and not patronizingly’ [P]. Although he found the work difficult, because he was initially unfamiliar both with children, and with the Philippino culture which was the topic for the education pack, he adopted some ideas from his school visit to help him in his work. Having observed a child talking about a book he had read using ‘dramatic motions and actions’ [P], he tried to introduce into his work characters which the children could engage with in this way, and he also used bright colours in a board game he created, having observed that children were drawn to such a stimulus. The style of writing which Frank adopted both in his portfolio and his questionnaire suggests that he was used to and capable of reflective writing from the outset, but his work based learning gave him the opportunity to develop his ideas in a new and practical context.

² Business and Technical Education Council qualification

Self Actualisation

Of the five students in this group only Frank showed any evidence of having gained in self-awareness and self-esteem, in a way which might be expected to last beyond the immediate satisfaction of completing the work based learning module.

Frank never quite overcame the difficulties that arose from the fact that the work he was asked to do was simply too hard from him. However, he approached it in an optimistic frame of mind, observing that as it was 'a Pandora's Box of work, there was at least hope at the bottom of the box' [P]. Although his ultimate conclusion was that 'working under the given pressured conditions ... for such an organisation would perhaps not be the best career for me' [P] he gained a great deal of satisfaction from being able 'to empathise with the children and in turn getting them to empathise with the Philippino children' [P]. He also felt that his work based learning had been a more valuable experience than he recognised at the time, observing that 'the skills that I have gained are only now beginning to surface in my self-awareness ... simply because the pace and work was too much for me to be able to continually assess.' [P]

Keith's reflection on his own strengths and weaknesses initially appears to indicate a disconcerting degree of complacency when he states, 'I could go on to consider how I may have done things differently or the limitations I encountered but these were not for me to decide ... I did my best therefore there is no need to question or ask, what if?' [P]. However, this statement, like most of his portfolio reflection, is rather a reflection of his very deep faith. He recognises that he has weaknesses, although he does not identify where these lie, but in referring to these 'negatives aspects' [P] he seems content that 'God has accepted it and dealt with it for me' [P]. From the evidence, therefore, it appears that Keith had found complete self-actualisation through his faith and that as long as he retained his faith no development was possible.

For Rosemary also it is difficult to find evidence that her work based learning contributed in any way to self-actualisation. The overall impression from her portfolio is that she was already confident and had a high level of self esteem. She makes frequent references, for example, to the fact that she had been recently elected as a local councillor, and after observing that 'reflecting on the placement is not an easy

task especially since it has not been possible to obtain hands on experience' [P] she goes on to discuss the different sections she observed rather than her own development. She also felt 'at times that eight weeks was far too long a period of time for the placement' [P], because a week in a particular section 'was sufficient time to find out what was needed' [P]. Her willingness to criticise the placement indicates self-confidence, but the lack of personal reflection suggests that work based learning in this instance failed to lead to any increase in self-knowledge.

In contrast, Margaret was well aware when she began the work based learning module that she was lacking in confidence and she hoped that choosing a placement which was familiar to her would enable her to develop her confidence and communication skills in a non-threatening environment. She also demonstrated her resolve to improve in these areas by opting for the eight week rather than the four week module because she felt that it would 'provide more of a challenge' [P]. However, because almost all her time was spent in caring for the donkeys, which was the job she had undertaken previously at the sanctuary, there was no new challenge involved. Because she was 'doing many tasks I knew how to do and was capable of doing well' [P] she developed her self-confidence, but it seems doubtful whether this would transfer to an unfamiliar situation.

The problems which Faye encountered with her initial learning agreement cannot have helped her self-confidence which was already weak, and although this was mitigated to some extent by the successful completion of the wall frieze, there is no evidence that Faye gained in any aspect of self-actualisation as a result of her work based learning. It is indicative that throughout her portfolio she refers to herself in the third person as 'the student', and consequently there is no evidence at all to suggest that any part of the work based learning experience impinged on her self-concept.

Social Awareness

Faye's failure to develop in this area is perhaps related to her lack of confidence and also her inability to personalise her experience. She maintained that the staff at the school did not make her feel welcome 'because I am quiet ... I don't think they have ever come across a quieter student before' [Q2], but rather than taking any responsibility for herself she suggested that 'what was missing was a lack of

communication between staff and student' [P]. After two or three weeks Faye overheard her tutor suggesting that she may not be benefitting from the placement; a conversation which actually resulted in her learning agreement being adjusted to help her, but again she did not take responsibility for the situation and rather blamed her employer, suggesting that 'if the issue had been addressed face to face between student and teacher the problem could have been resolved sooner and prevented anxiety over half term'. She also makes frequent reference in her portfolio to the special school where she had worked previously as being different, and by implication better than, her present placement. Although she appears to demonstrate no sense of responsibility for herself or to the placement, Faye did make an effort with the children, and as she found it difficult to communicate with them she began to learn signing, but only towards the end of the placement, and therefore with little success.

Keith maintained that he had no problem at all with communication skills, although his comment that 'there are always going to be a few people who you don't hit it off with' [Q2] again hints at complacency. Unlike Faye, not only was he able to take responsibility for the direction and outcomes of his placement, but he was evidently proud of his achievement in this area, observing that he had 'used selling and negotiating skills ... to firstly agree my duties during the placement and to agree a suitable mark at the end of the placement' [P] and stating that he 'took control of the assessment as far as possible, allowing the other parties to give their co-operation and responsibility' [Q2]. Keith had decided from the outset that he would 'make the placement what I wanted it to be' [P], and while this attitude testifies to his ability to take responsibility for himself, it makes no concessions to the social context of the workplace, such as might be required in a less amenable situation, and which indicate the kind of mature social awareness which is compatible with effective autonomy.

Social awareness emerged as one of the key issues in Frank's placement, and was the focus for much of his reflection. He identified as one of his problems the lack of communication between himself, his tutor and his employer, and felt that 'tutors should be better de-briefed before the event' [Q2], believing that with a deeper understanding of the rationale for work based learning his tutor might have been able to support him through his demanding placement. The evidence suggests that like Faye he failed to

recognise that he could have had a more active role himself in improving these lines of communication, but he did acknowledge his own weakness in communicating with children, both orally and in writing, which he found 'a tough though not impossible challenge' [P]. However he recognised the importance of the wider implications of his work, and felt that he was 'in some small way laying the foundation in children who hopefully will grow up into people who will bring national unity' [P]. He appreciated having had the opportunity to gain 'much needed knowledge' [P] of the work of such organisations as Christian Aid, and valued the contact he established with a local Philippino family, not only for the help they gave him with his practical tasks but also because it enabled him 'to see who I was indirectly dealing with in the flesh ... instead of two dimensionally in my consciousness.' [P]

Although Margaret spent much of her time working with the animals at the donkey sanctuary, this brought her into contact with the visitors, including groups of children and while she felt that she coped well in this situation she recognised that in doing so she was not only developing her own communication skills but also demonstrating her responsibility to her employers observing that 'being a representative of the trust for eight weeks meant that I had to create a good impression on the visitors, so being able to get on with them was essential' [P]. She also felt that her confidence had improved through having to work in the office, answering the phone and dealing with enquiries from a variety of people, and was particularly pleased when she was trusted to take charge of the office for a few hours, so despite the fact that her placement made few demands on her, it gave her the opportunity to demonstrate and develop a degree of social awareness.

Rosemary showed a similar level of responsibility in her social interactions in the workplace, because her observational role brought her into contact with a range of personnel in a variety of departments. She recognised the importance of developing her own communication skills in order to elicit the information she required without becoming a nuisance, and appreciated the fact that 'the staff of the departments were all exceptionally tolerant of the constant questions' [P]. She also identified one particular manager who had 'an excellent delivery of presentation' [P] and after asking him for help with her own presentation skills, she observed that she 'learnt more from

him in that time than I had done anywhere else in my previous learning' [P]. As well as learning about the work of the departments during her observations Rosemary also watched 'how people behaved and their attitude to others' [P] and identified this as one of her most important learning experiences, which suggests that despite the limitations of the placement her social awareness was enhanced by undertaking work based learning.

Although these last five students were all allocated very low scores for development in the separate characteristics of autonomy, and although there is no evidence to suggest that they would be more effectively autonomous after taking the work based learning module than they were before it, every one of them showed some gain in at least one of the areas, and could identify aspects of the placement that had made it a worthwhile learning experience for them.



This study of 57 students from the 1995 cohort supports the tentative conclusion arrived at in the previous chapter: that work-based learning can help promote those characteristics which are necessary for the effective exercise of autonomy. My analysis of evidence from all the students suggested that in each case where autonomy was developed, the student had experienced a challenge: intellectual, social or emotional, and also, that in each case the development of the individual characteristics of autonomy was influenced by different elements in the structure of the work-based learning module. The nature of the placement, the terms of the initial learning agreement, the support provided by tutor and employer mentor, the academic support programme and the assessment process were all found to have contributed to a greater or lesser extent to each student's development.

However, this main study raised some issues concerning other variables which could not be addressed with evidence from only four students, but which cannot be ignored with a sample of 57. In analysing how far an individual has developed a particular characteristic, a factor which cannot be overlooked is the extent to which they

possessed that characteristic before the period of the study, and from the evidence it became clear that a number of students were already functioning with some degree of autonomy before they began their work placement. However, in my analysis, every one of the 57 students showed evidence of having developed their capacity for autonomy in at least one of its aspects, which suggests that even those who were autonomous at the outset may have been helped to become more effective in the exercise of their autonomy as a result of undertaking work based learning.

The characteristics of independence, metacognition, self-actualisation and social responsibility are developmental, and one might therefore expect them to be more fully developed in older people. Also, it could be argued that as a result of the mores of western socialisation, males are likely to be more independent and have more self-confidence and greater self-esteem than females. Given that the larger sample of students included both males and females of varying ages it became necessary to look at these variables in some detail to see if these assumptions were correct, and if so to consider what bearing this might have on the outcome of my analysis. The detailed examination of age/gender differences can be found in Appendix 5.

In fact, there was no evidence to indicate that the age of the student had a bearing on the development of any of the characteristics, or on the degree to which they possessed a particular characteristic at the start of the placement. Although there was a suggestion that male students showed more ability to exercise their independence and that females became more self-actualised during their work based learning, which might support stereotypical assumptions, the evidence as a whole suggests that neither age or gender was a significant variable in the extent to which work based learning promoted autonomy in individual students.

The question of in what ways, and through what elements in its structure, work based learning contributes to the development of autonomy will be the focus of the next chapter.

6



MEETING THE CHALLENGE

*Where grows? - where grows it not? - If vain your toil,
We ought to blame the culture not the soil.
ALEXANDER POPE (An Essay on Man, Epistle IV)*

In the course of examining the evidence for development of the characteristics of autonomy from students in both the pilot and the main study, it emerged that almost all the students were challenged in some way by their work based learning, and the way in which they responded to this had an effect on their autonomy.

The differences in the degree to which the challenge had a positive outcome in terms of developing autonomy, was not simply related to how far the student succeeded in it. Rather, the determining factors appeared to be firstly whether the student recognised that there was a challenge; secondly that s/he was able to perceive it as a learning opportunity which could be addressed within the framework of support provided by the work based learning module, and thirdly that s/he could reflect on the nature of the learning experience and the factors which had contributed to it.

The nature of the challenge was in each case unique to the individual and the placement, but generally could be classed as intellectual, emotional or social. Although there was no precise correlation, an intellectual challenge tended to stimulate metacognitive development, an emotional challenge often resulted in increased self-actualisation, and a social challenge contributed to the student's social awareness. Any of the types could promote independence, depending on the circumstances.

Among those students who recognised the existence of a challenge, the majority found that elements in the structure and form of the work based learning module played a significant part. In some cases the work based learning element actually created the challenge, where students had an unsatisfactory learning agreement, or an inappropriate placement for example, but in these cases the students could identify other features of the programme which had helped them, and for some it was a well-conceived learning agreement or a sympathetic employer which provided the vital supportive element in the experience.

In this chapter I will consider some of the challenges encountered by the students and suggest how factors in the work based learning module influenced either the nature of the challenge, or the way in which the student managed the experience.

It could be argued that entering a new environment to undertake specific tasks, in the knowledge that you are to be assessed on the outcomes of those tasks is to undertake a challenge, and for eight students this was in itself sufficient as a catalyst towards the development of autonomy. Many of the students, however, encountered more specific problems during the course of their work based learning.

A number of students began their placement without having a specific role or job to undertake in the workplace, or found that the nature of the work changed because of unforeseen circumstances, and in order to meet their learning outcomes or the needs of the employer they were obliged to create or radically alter their own job description. Others found that the task or project they had agreed to undertake was unrealistic: either it was too large a task to complete in the eight weeks available, or they found it was not feasible to work in the way they had intended, and again these students had to amend their own learning agreements or confront the reality of being unable to achieve all they had hoped.

Because not all the students were able to choose their own placement, several found themselves working in areas which presented social or emotional challenges. One or two had to overcome an initial reluctance to accept the allotted placement which they considered to be inappropriate or uncongenial, while others had to confront personal

prejudices about the sort of people they were working with in order to be able to perform effectively in their work. In a few cases the major challenge of the placement took the more dramatic form of some sort of crisis: in at least two instances this related to problems presented by three or more students being assigned to the same placement and experiencing personal and interpersonal difficulties; others had to cope with illness. Many of the students faced challenges of a very personal nature, in so far as they were obliged to perform tasks or undergo experiences which they found particularly difficult. These often related to communication, and ranged from a fear of using the telephone, through anxieties about travelling on a train, to coming to terms with a negative assessment for the dialogue presentation. Some students who had congenial placements found sufficient challenge in the fact that they recognised a sense of obligation to the employer or the institution, or the project, or themselves, and determined to succeed in what they perceived as a real job.

While the evidence suggests that some kind of challenge could be identified for every student, this in itself was not enough to ensure the promotion of autonomy. In some cases, even where the student showed some development in one or two of the prerequisite characteristics, the overall conclusion had to be that they were still a long way from becoming autonomous, and on closer analysis it emerged that these students had not in any sense confronted the challenge. Either they had not recognised its existence, or they had failed to identify anything which might have helped them to deal with it.

The majority of students for whom work based learning did appear to be a successful vehicle for promoting autonomy, not only recognised the challenge, but also identified factors which had helped them to meet it, and of these, the ones who were judged to have shown the greatest progress towards autonomy were those who were able to reflect positively on their learning experience; even though the placement itself may not always have been a success in terms of the work undertaken.

The factors which the students identified as having helped them can themselves be categorised as the different elements which comprise the work based learning module as a whole: the learning agreement; the support programme; support from the

employer/mentor; support from the tutor; the assessment process; and also the student's prior experience, both academic and 'life experience', and the motivation of having a real job in the real - i.e. non-academic - world. The other key element of the work based learning module is the reflective report, or portfolio, which, being largely retrospective, had less of an influence on the student's performance in the placement, but played a major part in turning the learning that came from the experience of work into experiential learning.

To see how these individual elements helped the students meet their challenges and thereby contributed to the development of their autonomy it is necessary to look again at the evidence discussed in the previous chapters, but from a new perspective. The individual students referred to in the discussion have been selected because their backgrounds have already been described in the previous chapters, but it must be stressed that they are only examples. As can be seen from the table in Appendix 6, my analysis of the evidence from all the students showed that the experiences of the majority of them support my argument.

The Learning Agreement

As has already been observed, for some students the learning agreement itself was perceived as the major challenge, because it was either inadequate or unrealistic, but for others their agreement was an important factor in enabling them to cope with the challenge of work based learning.

David, for example, who was initially reluctant to accept a placement in a hostel for the homeless, entered it in a much more positive frame of mind after he had negotiated a clear learning agreement with the support of both his tutor and his employer. Naomi's problem was that, being hearing impaired, she was anxious about her ability to communicate effectively with the students she had to speak to in the course of her work with the College Advisory Service. However, like David she recognised that her clear and well-structured learning agreement helped by enabling her to approach her agreed tasks methodically, gaining confidence with each successful interview, and never becoming overwhelmed by the project as a whole.

A number of students, including Janet and Moira from the pilot study, and Wendy, who was among those in the main study who showed considerable evidence of developing autonomy, saw the challenge of doing a real job as a key factor in their learning, and recognised that a well-structured learning agreement had helped them to succeed. Moira had negotiated her learning outcomes with her employer, rather than in the tripartite discussions which included her tutor, and had clear ideas of what she wanted to achieve in her work for the city's tourism promotion unit. She had a number of clearly defined projects to complete, and by constantly referring back to her agreement, and discussing her progress with her employer, she was able to achieve all her outcomes and feel proud of her work.

Janet and Wendy were appreciative of the support they received from their tutor and employer, both in drawing up a demanding but well-structured learning agreement and in the course of the placement. They recognised that to achieve the learning outcomes required commitment and effort on their part, but were willing to work hard at the projects they had been given, which they saw as valuable for themselves and for the organisation. Janet particularly felt that the work she was doing was going to benefit other hearing impaired students, and that she owed it to them to make a success of it. Despite her uncertainties about her communication skills, and with sensitive support from her tutor she was able to exceed even her own expectations, using the learning outcomes to help her plan her work and 'think two steps ahead.' [P]

The Support Programme

As part of the framework for Learning Outcome 5 of the work based learning module, all students were asked to evaluate their learning in the light of knowledge gained from the Friday support programme, but in the context of this discussion it is relevant to note how the support programme was cited by a majority of the students as having helped them to overcome specific problems during their placement, or as enhancing the value of work based learning as a learning experience because of insights it provided into their own and others' behaviours. Students variously acknowledged the value of sessions on assertiveness, on communication, on group dynamics, on learning theories, and on action planning, as well as, or in some cases as a substitute for, support from individual tutors.

Brenda, for example, had lacked appropriate guidance when negotiating her learning agreement, and soon found that it was too ambitious. Almost as soon as she started her placement she realised that she could not achieve the goals she had set herself, but by applying time management and planning strategies she had learnt during the support programme she renegotiated her agreement to make it more realistic, and therefore not only more achievable but also more satisfying.

Faced with a similar situation of having a learning agreement based on unachievable outcomes, although in this case agreed by her tutor and employer with little contribution from herself, Fiona began her placement feeling confused and apprehensive. However, after attending a Friday session on 'problem-solving' she realised that she must take control of the situation and translate her prescribed learning outcomes into goals that she could both understand and achieve. This realisation gave her the confidence as well as the means to overcome her fears and turn an ordeal into a worthwhile learning experience.

Jane, and the other students who shared her placement had clear learning agreements focusing on a worthwhile project for the police force, but Jane in particular realised that they would not be able to achieve their goals because the questionnaire they had been given to use was badly designed, and she observed that the team 'became lost halfway through the placement'[P]. Deliberately using knowledge about group interaction that she had learnt during the support programme, Jane brought the group together again to redesign the questionnaire, to each take a particular responsibility, and ultimately to achieve all their learning outcomes.

Several of the students were helped to meet the challenge of their work based learning by having gained fresh insight into their own personalities during the support programme. David, for example, learnt that he had a preference for putting theory into practice, rather than studying in the abstract. This enabled him to appreciate the value of work based learning and to recognise that his personal knowledge of and insight into the life of homeless people could be a valuable asset in his placement. Such positive thinking motivated him to persevere in a placement which he initially found uncongenial. Helped by some of the time management and problem solving strategies

introduced during the support programme, he achieved all his learning outcomes, and developed in self actualisation.

Fiona, although happy with her placement, recognised that some of her behaviour patterns were affecting her work adversely. She acknowledged that she tended to be judgmental, quick tempered and a poor listener, and that these characteristics were not appropriate for work which involved interviewing both professional health providers and their clients. She therefore made a determined effort to adopt some of the stress management, assertiveness and listening skills that she had learnt during the Friday sessions, and found that her interviewing techniques improved.

Susan's challenge was personal and practical: she had a fear of using the telephone which caused her considerable anxiety until she made a conscious effort to implement her learning from the support programme and trace out new behavioural strategies for coping with telephone calls. As these strategies became internalised she overcame her fear and was able to manage this part of her work effectively.

While several students recognised the way in which the support programme helped them overcome specific problems or difficulties, others valued aspects of the programme which enabled them to function more effectively in their work. Moira, for example, valued the assertiveness sessions which enabled her to identify her 'be strong' stress drive, and to recognise that this was having a negative effect on her work, but once she was aware of the problem she was able to implement strategies to counteract it and manage her work more efficiently. Assertiveness techniques were also helpful to Wendy, who was working in a school. She found that when she began to use techniques learnt during assertiveness training and general communication skills sessions, she was able to manage the pupils more effectively, and she acknowledged that she should have 'used the skills gained from the support programme earlier.' [P]

Despite having the specific communication problems of hearing impairment, Janet also found the sessions on communication helped her when she was talking to groups of deaf students about their needs and problems, and given the demanding project that she was undertaking, the sessions on time management provided useful strategies which

enabled her to schedule the production of a video so that it was completed within the eight weeks. Edward also found the time management sessions useful, both in helping him to cope with full time working as a single parent, but also in planning his classroom activities within the constraints of the school timetable. Even though he was aware of the theory of time management from his previous working experience, he felt that the sessions helped him develop his skills further.

Employer and staff support

The work based learning module is predicated on the tripartite framework of student-tutor-employer and, in the WBLFAC dissemination document. (LET, 1993), the employer partner has an identified role in helping the student achieve her/his learning outcomes. From the available evidence it is clear that the employers involved with this cohort of students ranged from those who were central to the student's learning experience to those whose involvement was nominal.

Among those students who were judged to have shown progress towards autonomy, several were able to recognise the value of having an employer who made a positive contribution to their learning experience, while others acknowledged that some or all of the staff in their placement had helped them to meet a particular challenge.

Colin recognised that he was fortunate to have an employer who was prepared to help and advise him by discussing his work as a golf professional, but also encouraged his initiative, and allowed him to feel that he was undertaking a real job with responsibility for contributing to the commercial success of the enterprise. Janet, from the pilot study, also appreciated having a supportive employer who took an active interest in her work and provided both encouragement and practical help, particularly with signing and interpreting when Janet found her deafness to be a handicap. Knowing that assistance was readily available in fact gave Janet the confidence to be more independent than she had anticipated, and enabled her, as her employer observed, to approach 'every aspect of her work with excitement and enthusiasm.' [E]

Ingrid began her placement in a school without having established clear learning outcomes for the work she was to undertake, and therefore devised her own projects

with support from both the head of department who was her mentor and from other staff. She discussed her ideas with the staff and produced proposals which were then submitted to her mentor for approval, which not only gave her an opportunity to learn from more experienced colleagues but also, when her plans were praised, increased her confidence and self-esteem so that she was able to implement the plans more effectively.

In contrast to Ingrid, Denise's difficulties arose from her having agreed learning outcomes which were too ambitious for the four week placement she had chosen, and the situation was exacerbated by her own absence through illness during the third week. However, by adopting careful planning strategies and with encouragement from the staff and regular positive feedback from her employer about her progress, she was able to achieve a successful outcome.

Although she was in an eight week placement, Brenda also felt that because her tutor had lacked commitment and her employer had been unclear about the philosophy of work based learning, unsatisfactory tripartite negotiations had resulted in the inclusion of unrealistic outcomes in her original learning agreement. However, when she subsequently discussed the problem with her employer he was both understanding and supportive and helped her to devise an achievable programme of work, which she was able to complete effectively.

Naomi's difficulties were both emotional and practical. Being deaf, she was anxious about her communication skills, but she was disturbed when her project started badly because she had not been able to gather enough information from the students whose views she was investigating. However, her employer emphasised her successes, suggested strategies to revive her project and with this encouragement, and practical assistance from the staff which made her feel that she was a member of the team, she regained her confidence and achieved her learning outcomes.

Support from Tutor

Perhaps because they were conscious of the tutor's role in the assessment process, and assumed their tutors would be aware of their role in the work based learning

experience, few students referred to their tutor in their portfolio. Both Janet and Naomi, the two deaf students, acknowledged the value of the help, support and encouragement they had received, and one or two other students from the main study appreciated the tutor's role in helping them negotiate the learning agreement or deal with unforeseen circumstances in the course of the placement, but there was little evidence overall in the portfolios to indicate that the tutor had helped the students to meet the challenges of work based learning.

However, this should not be taken as an indication that the tutor's role is unimportant, because when asked in my confidential questionnaire specifically about the effectiveness of the tripartite arrangements, more students showed appreciation of their tutor and several acknowledged the importance of the role by referring to their own tutor's failure to fulfill it, either through lack of commitment or as a result of an unsympathetic attitude to the principle of work based learning.

A Real Job

Several students found that having a specific task, project or role to undertake which they could see was of value to the business of the placement, provided the motivation they needed to overcome a variety of challenges, and enhanced their feelings of self worth.

Brenda was one of those who felt that her tutor, 'wasn't interested' [Q2] and her employer was uncertain about the purpose of the learning agreement [E], so her learning outcomes were unclear. However, once in the placement she was given the task of producing health promotion packs; something her employer had wanted to do but never found the time. Consequently Brenda perceived the work as important, and not simply an ad hoc project, and was able to feel that she was an 'asset' [P] to the department.

David was initially unhappy about being given a placement in a hostel for the homeless where he had previously been a resident. However, he was helped to overcome this emotional challenge by formulating a learning agreement in which he arranged to undertake some research into homelessness. This had the advantage of allowing him to

work away from the hostel itself for much of the time, which relieved the emotional tension, but more importantly the recognition that his employer could ‘benefit from the skills of an undergraduate’ [P] and that his work could contribute to a wider understanding of the issues surrounding homelessness, increased both his motivation and his sense of self-worth and sustained him throughout the placement.

Susan also had reservations about her placement at the beginning, but in her case it was because she lacked confidence in her abilities and particularly in her communication skills, and was concerned about the range of people and social situations she would have to deal with while working in a Community Health Centre. Although at the beginning she experienced feelings of ‘immobilisation and self doubt’, she realised that the work she was to undertake was important and required her active participation if it was to be completed successfully, and this initial motivation was reinforced as her confidence grew from small successes in her work, and enabled her to achieve all her learning outcomes.

Assessment

As well as being motivated by the need to complete the work she had been assigned for its own sake, Susan was also aware that she would be assessed on her learning outcomes, and this too helped her to persevere in spite of her anxiety and uncertainty, and other students also provided evidence to suggest that their performance was influenced by the fact that their work based learning was to be assessed for academic credit, and would contribute to their final degree mark.

Fiona, for example, began her placement without having established clear learning outcomes, or knowing what work she would be expected to perform, but because she appreciated that she was engaged in ‘work based learning and not work experience, with the emphasis on learning’, she felt that the actual work would be secondary to the learning experiences. She was therefore able to overcome her anxieties about the vagueness of her learning outcomes and focus on the learning opportunities provided by the work she was doing.

Moira and Janet, from the pilot study, and Ingrid from the main study, were among those who appear to have benefitted the most from their work based learning in terms of developing their capacity for autonomy, and all three acknowledged the assessment process as having an influence on their performance.

Moira was highly motivated from the outset by the fact that she was working in an area which interested her and undertaking a worthwhile project in producing tourist guides for publication, but her determination to produce a first class piece of work was reinforced by the fact that her hard work would be rewarded with a good grade for her work based learning assessment. She also recognised that although she did not enjoy being assessed, the novelty of the assessment strategies 'occasioned a learning experience in itself.' [P]

Janet also commented on the assessment strategies for the module, feeling that the dialogical assessment in particular allowed her to demonstrate her strengths. She felt that work based learning provided her with an opportunity to compete on equal terms with other students, in contrast to the academic setting where her deafness put her at a disadvantage. Because it was important to her self-actualisation that her equality should be validated by marks which were as good as, if not better than, those of other students, she, like Moira, put all her efforts into achieving the highest possible standards in her work.

Ingrid's motivation was perhaps more pragmatic than either Moira's or Janet's, but was equally strong. She wanted to gain a place on a PGCE course, and, having no previous experience of teaching she felt that achieving a high mark for her work based learning in a school would improve her chances of being accepted, and consequently put all her efforts into achieving her learning outcomes and proving her capability in the classroom.

Prior Knowledge and Experience

Although Ingrid had no previous experience of teaching, she found that her life experience as a mother, and her academic background as a drama student both helped her to cope effectively with situations which arose during her placement, and increased

her confidence in her own capabilities. Other students also provided evidence of the value of prior experience in helping them perform effectively during their work based learning.

One of the learning outcomes for all the students in this study was to evaluate experiential learning in the light of academic subject knowledge, and most of them made some reference in their portfolio to the relevance of their academic studies to the work of the placement. For several of them, however, the evidence suggests that their prior knowledge was an important factor in helping them to meet the challenges of their work based learning.

Gillian, for example, had little support from her tutor and felt that her learning outcomes were vague, but when her employer was absent through illness she found that she had to take responsibility for her own work patterns and take a central role in a number of ongoing projects. By calling on knowledge gained on her drama course, and some previous practical experience, she was able to demonstrate initiative and make a valuable contribution to the work of the theatre group.

Similarly, both Denise and Jane were challenged by the nature of their learning agreements, but in their case it was the fact that they were too rigorous rather than too vague. Denise had agreed to undertake a survey and prepare a report for a local authority committee in the course of her four week placement, and was only able to achieve it by using strategies which she had learnt about at college, both in the practical area of research and interview techniques, and in the personal sphere of time and stress management. Not only did her knowledge of appropriate strategies assist her in the work, but knowing that she knew them gave her the confidence to undertake a project which at first threatened to overwhelm her.

Jane was also engaged in a research project, but she was joining a team who had already begun the work. However, the project had run into difficulties and it was only when Jane used her knowledge of research techniques to devise a more accessible questionnaire that it was able to proceed. While the team benefitted from her practical intervention, Jane herself also gained from the development in self confidence and self-

esteem which came about through her ability to use her prior knowledge to good effect.

The evidence suggests that where the students were motivated and challenged by undertaking what they perceived as a real job, they were almost all able to recognise the relevance of different kinds of prior experience for the work they were doing, which suggests, perhaps, that transfer of knowledge is more easily achieved in the real world than in encapsulated academic circles.

Colin, for example, found that his academic knowledge of sports science and psychology enabled him to be more effective as a golfing coach, and Moira, from the pilot study, used her subject knowledge of History and English, her academically acquired research skills and interpersonal skills learnt during previous employment, to help her complete a number of demanding projects during her placement in a tourist office. Both Wendy and Ingrid, who had school placements, felt more confident in the classroom as a result of having previously worked with young children, even though in Wendy's case this had been with a much younger age range. Ingrid's experience had been in a theatre group rather than a school, but she maintained that this, coupled with her parenting skills, helped her to establish good relationships with the children and maintain discipline. Janet's work with deaf students was enhanced by both her academic knowledge and her own life experiences as a deaf person, which not only helped her to feel very strongly the value of the project she was undertaking, but also enabled her to relate effectively to the students she was working with.

All the students referred to in this chapter so far recognised that work based learning had presented them with a challenge, and they were able to analyse their experience to identify what factors had helped them to address it, and through this reflective analysis they showed evidence of having learnt new knowledge and new skills and of having developed new capabilities and capacities, including those which underpin effective autonomy. The fact that many more students in the sample provided similar evidence of their learning in some of these areas is illustrated in Appendix 6.

Portfolio

The evidence about each student's development comes primarily from the portfolio in which s/he both describes what s/he has done during work based learning and analyses what s/he has learnt from doing it. This simple description of the portfolio somewhat belies its complexity, because, I would suggest, it is through engaging in the sort of systematic reflective analysis that is required for the writing process that the real learning takes place. Only when the student internalises the knowledge of how s/he has changed as a result of an experience is learning from experience transformed into experiential learning, and I would argue that experiential learning is central to the development of autonomy. The portfolio therefore represents both the process and the product of the student's learning, and it is through considering the product that it is possible to ascertain the effectiveness of the process. This applies to estimating how far the student has developed the capacities of autonomy as much as to how successfully s/he has achieved the learning outcomes. Although the portfolio, like the tripartite framework, the learning agreement, and the support programme, is a central element of the work based learning module, it is, I would argue, the only one that presented a challenge to every student, and carried the potential to help them meet that challenge.

All of the students who demonstrated some progress in autonomy were able to identify in their portfolio one or more element of the work based learning programme as a whole which had helped them to be more effective in the workplace, and in doing so all of them had learnt that they could be more effective. Although the challenges and the facilitating factors were different, it was in reflecting on their experience, and identifying where they had faced challenges, and, more importantly, how they had dealt with them, that the formative lessons of their work based learning were made explicit, and therefore accessible to them to be applied in the future. In order to illustrate the process in the product it is necessary to quote the students' own words, and all the quotations in the following paragraphs are taken from the students' portfolios and reproduced verbatim.

Ingrid, for example, was aware of the difficulties facing an inexperienced drama teacher. She knew intellectually that 'drama concerns a large group of people in a dramatic situation (and) can very easily topple over into chaos', and she used a variety

of strategies from her drama theory, the support sessions and her experience as a mother to avoid this scenario. She made efforts to 'plan lessons, carefully', 'encourage rather than repress verbal and physical responses' and 'use ... non-verbal signals'.

These techniques appear to have been successful since although she describes one or two challenging incidents she reports no disastrous lessons. However, it is clear that what Ingrid knew intellectually at the start of her placement, she had internalised by the end of it: she could now envisage that 'the sort of nightmare which can make one wake up in a cold sweat is that of a drama lesson that has got out of control'.

As well as illustrating her ability to learn through reflection, Ingrid's portfolio also describes how reflecting on a problem helped her to confront it. Being worried about how the pupils would react to a stranger she focused her thoughts on 'what would be the value to them of being taught by someone new' and decided that by immediately introducing herself and explaining her background to the class they would see her as 'someone new' and not as 'a stranger', a strategy that resulted in her establishing a rapport with the pupils that led to a successful lesson. Ingrid describes other incidents and learning opportunities that her placement provided, but it is the quality of the description that suggests that when she writes 'I reflected on issues like this', she is describing a learning experience and not simply a learning outcome.

Gillian's portfolio similarly illustrates the difference between knowing something intellectually and internalising that knowledge so that it is also known emotionally. She too was a drama student and knew that 'a project can only be assured if each individual knows they have sole responsibility for their particular part in it'. During her placement with a theatre in education company she watched the other actors and discussed their work with them, and observed how they took responsibility for their own work. Although she came to recognise that co-operation was important, she felt that working on her own she was 'quicker and more effective than if I was sharing the responsibility with someone else'. When the company director became ill Gillian was given even more responsibility than she had anticipated and it was this that transformed her theoretical knowledge about taking responsibility into an emotional understanding of what it meant in practice; a fact which she recognised herself: 'I have no doubt that this sudden increased responsibility improved my confidence and gave me the incentive to

acquire new skills for myself ... to learn from my own initiative and create my own techniques.'

Again it is clear from the quality of her writing that Gillian, like Ingrid, has reflected on her experience and sees herself differently as a result. When she describes how at the beginning of the placement the 'thought of even answering the phone' was anathema to her, but by the end she is 'willing to undertake new tasks and approach challenging situations with a positive attitude', we believe her because there is evidence of the process in the product.

Similarly, there is strong evidence in Jane's portfolio to support her own assessment that 'the placement has been a valuable experience. I have developed important work-related skills, unfolded my self-development and unarguably been personally challenged'. Realising that the research team she had joined were facing difficulties because of an inappropriate questionnaire, she decided to redesign it, and although she was anxious about the decision, she recognised that 'self-doubt is part of the learning process'. She also felt that not all team members were taking their fair share of the work, but again she could identify the positive side of the experience, reflecting that 'there is lots to be learnt from colleagues' and despite the 'overwhelming' frustrations, 'I believe this has been a very valuable experience as my future career will undoubtedly demand team work ... a skill in which I was constantly tested and developing'.

Jane refers in her portfolio to her dialogical assessment which she found 'quite traumatic', and as an observer at this event I had first hand evidence of the accuracy of her account: 'I was not able to show real evidence of my development [as] most of my learning outcomes were qualitative. The criticisms I felt were tactless and quite demoralising and at the time squashed the confidence which I had built up as a result of the placement'. Jane was in fact reduced to tears by the assessment, but by the time she came to reflect on it in her portfolio she was able to isolate the lesson from the experience, and observe that 'I now know that prospective stressful situations ... demand self-control and calm'. The distance between the event and the written reflection is not just physical and temporal but also emotional and this contributes to the effective assimilation of experience which is part of the learning process.

As well as allowing the student to reflect on specific events and incidents which provided individual learning opportunities in their work based learning, the writing of the portfolio also enables her/him to consider the experience in its entirety, and benefit from those developments which occur when the whole is greater than the sum of its parts, as Naomi's portfolio illustrates.

Before she began her work based learning, Naomi 'was extremely depressed and fed up with my course and myself' but in retrospect she recognised that 'the two months work experience was the turning point of my attitude towards life, my work and myself'. As a deaf student she had felt handicapped by her deafness and lacked confidence, but after a successful placement her self image was redefined, which in turn led to a change in behaviour. She reflected that 'Despite all my experience I still cannot quite believe the strength of my abilities working within the practical environment ... I have been able to put theory into practice which has created a great learning curve for me'.

Naomi demonstrated that work based learning had not only enabled her to put intellectual theory into practice, but also to act on her emotional and social learning. She gives several examples in her portfolio of experiences which had increased her confidence, but the fact that she had internalised these is illustrated by her observation that 'I now tell people that I am deaf at the start of conversations. I'm me, people are interested in me and I in them. The deafness isn't a problem if I don't let it be. I still find it difficult to accept but I'm on the way.'

The evidence of Naomi's portfolio suggests that her development in self-actualisation, and towards autonomy, resulted from the cumulative effect of a number of successes and learning opportunities that occurred throughout her placement, and it was only through reflecting on the whole two months that she recognised and internalised the way that it had changed her.

A similar outcome is evident in Wendy's portfolio. Her original expectations of her teaching placement were that it would 'enable me to extend the links between subject knowledge and practice by relating them to a school-based situation allowing me to develop and learn from the experience'. Throughout the portfolio she cites instances of learning opportunities, some which she took advantage of at the time, such as

observing how other teachers dealt with particular situations, but others she appreciated more fully in retrospect, as when she ignored a particular situation, but noted that 'reflecting on this afterwards what I should have done was to have used the skills gained from the support programme and confronted the pupils'. However, the overall effect on her development was again cumulative and the intellectual expectations she began with had been augmented by personal growth. 'I have become more confident now. This aspect I am most pleased with, as I feel that I've become more assertive, and am more willing to take the initiative in different situations. This has been evident to my friends and family, who have said that I'm a much more confident and outgoing person now.'

For many of the students who developed in autonomy as a result of their work based learning it is the quality of the writing which demonstrates the effectiveness of the portfolio as part of the learning process: not its technical quality, but the depth of feeling and understanding that is evident to the reader, and cannot but be evident to the writer. To illustrate this more fully it is instructive to consider the portfolios of some of those who did not show any movement towards autonomy, and who provided the least evidence of development in any of the prerequisite capacities.

A common factor among these students was that their portfolio did not provide any evidence that they had learnt anything which would be of enduring value beyond the work based learning module. They may have had valuable experiences, as so many of their colleagues did. Some recognised that they had faced a particular challenge, and others demonstrated that they had gathered interesting information about their placement and the work they had been doing, but none of them seemed able to identify what they had learnt about themselves from these experiences. They were able to fulfill the assessment criteria by recording what they had done, and what they had learnt about, but nowhere do they show evidence of having reflected on their experience in a way which would enable them to internalise the learning and use it to inform their attitudes or behaviour in the future.

Faye was one of those who recognised that her placement in a special school provided an identifiable challenge, and although she was able to write about the problems she

faced, in terms which demonstrated an understanding of the theory of effective behaviour, she showed no evidence of having adopted any coping strategies to help her become more personally effective.

She identified her main difficulty as being a problem of communication, arising from the fact that she was by nature an extremely quiet person: a situation which was highlighted by the fact that there were other students at the same placement and Faye was easily overshadowed. It is indicative that many of her observations are made in impersonal terms: 'I don't think they [the staff] have ever come across a quieter student before'; the staff 'did not make me feel welcome' 'after eight weeks there was still difficulty understanding the children completely'. Although there is evidence that she tried to compensate for her weakness in verbal communication, by using eye contact to show disapproval for example, and by trying to learn signing, her only attempt to address the issue of her quietness was the observation that 'what was needed was to be louder'.

Similarly, Faye was able to recognise that she had a problem with time-management, 'because a 2 day job took in fact two weeks', but she showed no evidence of having used any of the time management strategies that had been introduced during the support programme, or even of recognising in retrospect how she could have managed things differently. And finally, in reflecting on the placement as a whole, she focused on establishing comparisons between this school and another where she had worked previously.

Throughout her portfolio, both in the content and the phraseology, Faye tended to externalise the entire experience. She showed ample evidence that she had learnt about the placement, about effective behaviour and to some extent about her own successes and failures, but she showed no realisation that she had or could change and develop as a result of what she had learnt.

Rosemary described her placement in an environmental health office as 'enjoyable and easy going' which suggests, as does her entire portfolio, that she did not find any challenge in the placement. She maintained that one of her aims was to develop

‘effective communication’, and describes how she asked a member of staff to help her with her presentation skills, which she found valuable, but she does not elaborate on what skills she had learnt from him.

Rosemary’s learning agreement involved her in observational activities and her report on the working of the organisation was detailed. However there is no evidence of any personal development, an omission which Rosemary apparently attempts to justify by her frequent references to the fact that she did not have any hands on experience. She found that reflecting on her work based learning was ‘not an easy task, especially since it has not been possible to gain hands on experience’. She observes that ‘acquiring new skills was very difficult due to this restriction’ and notes that ‘I did feel at times I would have preferred to be doing something more constructive. I felt that if I had been allowed to, I could have undertaken some of the small tasks ... which would have enhanced the placement somewhat’.

There is no evidence that Rosemary actually asked if she might have hands on experience: she seemed content to note that ‘only qualified staff are able to do the work of an environmental health officer’ and she therefore redefined the purpose of her placement as being to ‘evaluate the role of the environmental health officer in its wider context’. As an academic exercise Rosemary fulfilled this objective admirably, and presents a clear picture of what she ‘found out’: a phrase that occurs repeatedly in the portfolio. It is interesting to note that Rosemary began work on her portfolio during less busy times in the placement, and therefore did not have the same distant perspective that benefitted Naomi and Wendy. This, combined with the unchallenging nature of her learning agreement, may explain why her portfolio is descriptive and analytical but shows no evidence of the learning process that is characterised by reflection.

Margaret’s portfolio is illustrated with photographs of the donkey sanctuary where she undertook her work based learning, which typifies the descriptive and illustrative approach she adopted in writing it. She describes the organisation and her learning outcomes in some detail, but the section of the portfolio which deals with how the learning outcomes were achieved is equally descriptive and shows little evidence of

reflection. She states that she 'did not encounter any problems with working with people' and describes the people she worked with. She 'gained confidence in the working environment (by) ... working on my own ... working with the public and children ... I was sometimes left in charge of the centre for a few hours at a time'. She was able to improve her communication skills 'by working with and talking to a range of people'

Margaret's experience was limited by the fact that she had some time off through illness, and was therefore unable to complete the individual child study that had been agreed as a learning outcome, or to experience different aspects of the work of the sanctuary, but she did not seem to consider these setbacks as particularly significant. She maintains in the evaluation section that she 'achieved most of the things I intended to do in my learning agreement', and concludes with a reference to her illness noting that 'this may have had some effect on how much I gained from the work based learning experience'. The evidence suggests that in fact she gained very little from the experience other than increased self-confidence as a result of being given some responsibility. Her failure to develop in any other way may have been attributable to her illness, or to the unchallenging nature of the work, or to her having worked in the same place before, but the superficiality of her portfolio suggests that the learning process was equally lacking in depth.

Where Margaret's portfolio demonstrates superficiality, Frank's is characterised by superfluity. His portfolio begins 'Two months is a long time to suffer the inconceivable consequences of an ill-informed decision made in a momentary lapse of reason. At least that was the opinion of which I was of some four and a half months ago ...' and he uses over 100 words to explain that he chose an eight week placement 'because it would provide adequate working experience for post graduation'. This idiosyncratic style of writing cannot, however, disguise the limitations of the content, which is, like Margaret's, largely descriptive.

Unlike Margaret, Frank recognised that his work presented a challenge, which he identified as 'the sheer volume of work ... and particularly so that in relation to its lack of familiarity to my person', but he shows no evidence of having thought how he might

overcome these problems. Throughout the portfolio he refers to his difficulties with time management and the nature of his work, which was to produce an educational pack on the Philippines for Keystage 2 children. He had no experience with children and found it difficult to communicate at their level. Nevertheless he maintained that he was 'able to build upon an already present flexible skill of communication present through my experiences as a practising Christian', and also that he 'gained a great deal of insight into the nature of effective communication with my employers as well as children' from the support programme, but he does not say how this helped him.

He describes his own work and that of the organisation in some detail, and although he refers to the value of retrospection, observing that, 'looking back now on the past eight weeks, I would now place considerable value on the learning experience ... much of what I have learnt I was unable to recognise and understand at the time', he gives some unusual examples of what it is that he has learnt. He refers in convoluted fashion to having learnt to understand the language of Shakespeare through 'being able to communicate with children and the simplicity of their language'; he notes that 'the average reading age for people of Great Britain is thirteen', and that 'an action with a written fact is easier remembered later than the written fact on its own', but that is all. He does state, however, that the most important lesson of work based learning was that 'working under the given pressured conditions that I was under for such an organisation would perhaps not be the best career for me'.

Frank's portfolio illustrates the dual function of the document as both product and process. His portfolio is entertaining to read but in adopting such an elaborate style of writing he frequently obscures his meaning, and leaves the impression that while he enjoyed his work in his placement, he failed to understand the meaning and value of work based learning.

Although Keith's portfolio is presented in a more accessible form, as a report rather than an essay, the quality of the writing is in places very similar to Frank's, and again illustrates the fusion of process and product. In the evaluation section of his portfolio, for example, Keith fulfills the learning outcome of evaluating his experience 'in the light of academic knowledge, subject knowledge from placement, knowledge from

supporting programme and the student's own sources', by clearly describing one example in each area. However he then concludes this section by observing that 'the four criteria ... were very useful individually but it could have been how these were used together that made the experience of the placement a pleasurable one. This I believe is where psychological knowledge and expressible facts end and a more open-minded framework began in my self appraisal'. This style is continued through the self-appraisal, the content of which is summarised in the conclusion, where Keith writes that, 'in evaluating the placement my most essential learning was not in the area of skills or knowledge ... but in the personal area of my faith in Jesus Christ that (sic) son of God'.

The fact that both Frank and Keith were committed Christians, may not in itself account for the similarities in their writing style, but may explain the lack of evidence for development in autonomy, as both of these students held the conviction expressed by Keith that 'I did my best, therefore there is no need to question or ask; what if?' The issue here, however, is not whether such strong faith precludes personal autonomy, but rather to illustrate that where the student does not reflect on how and why s/he has changed as a result of particular experiences, there can be no evidence that the experiences have become internalised, or that the student will think or act any differently in the future.

This discussion of the relevance of the portfolio for demonstrating and consolidating the development of autonomy would be incomplete without reference to those students whose limited development is attributable to the fact that they were already functioning autonomously before they undertook their work based learning. Penny and George were both judged to fall into this category, although there was evidence to suggest that their experience helped them to become more effective autonomous agents as their confidence increased as a result of successfully achieving their learning outcomes.

Both of these students presented their portfolio in report form, and demonstrated a clear understanding of the purpose of work based learning and of their own learning agreements. Penny, for example 'understood that this placement not only required

learnt theoretical skills such as creativity, computing, problem solving, self-responsibility, team work and independent research and project management skills' Her portfolio provides evidence that she undertook all these activities. Although she admits that when she first completed the learning agreement she 'had not fully understood its criteria' she was able to renegotiate some of her learning outcomes as her research into hospital violence proceeded, and explained the changes clearly in her portfolio.

As a mature person with over thirty years experience of the working world George appreciated that he was fortunate to undertake his work based learning in a company where he could demonstrate his capabilities in a worthwhile project which would develop his own skills as well as be of benefit to the organisation. Like Penny he presented his portfolio as a report in which information about the work being undertaken is integrated with evidence of the reflection which results in understanding. Referring to the use of the Fax in the course of his work, George observes that 'The fax is a particularly convenient medium when communicating with partners on the Continent, it helps overcome any language difficulties, and is less likely to cause any misunderstanding, with language variations.' Although such a statement could have come from a communications textbook, it is evident from the tenor of the portfolio as a whole that this information came from George himself. When he writes in his concluding remarks that the experience enabled him, among other things, to 'appreciate the considerable advantages that modern technology provides to the workplace', he does not need to refer back to this example to make his point.

These two examples illustrate how the portfolio as a whole is greater than the sum of its parts, and that while it may be possible to find evidence for the development of the individual capacities which are the prerequisites of autonomy throughout the document, it is only in reading the whole that it is possible to estimate whether the writer is, or is becoming autonomous. Given that this is the situation with regard to the product, I would suggest that a similar argument could be advanced in relation to the process, which is to say that while the individual may reflect how s/he has become more independent, or used theory to inform practical work, or gained in confidence, or improved in communication skills, it is only when these developments have been

internalised and integrated into her/his self-image that s/he will become more autonomous.

My analysis of the evidence from the 4 students in the pilot study, and the 57 in the main study suggests that the model of work based learning adopted by University College Chester was effective in helping all the students to develop the four characteristics of independence, metacognition, self-actualisation and social awareness, which I believe are the prerequisites of effective autonomy. The extent to which the students were judged to have made progress in these areas depended on whether work based learning presented them with a challenge, and whether they were able to make use of the supporting framework of the work based learning module to help them extend their capabilities in order to meet the challenge.

Those students who were judged to have been or become more autonomous as a result of their work based learning showed evidence in their portfolio of having reflected on their experiences in a way which enabled them to internalise the learning and personal development that had occurred. The evidence suggested that as a result of their work based learning these students were more adaptable, more confident, more responsible, more able to meet new challenges, and more able to engage in the lifelong learning that can come through experience as much as through academic study.

I would argue that these are the capacities that should underpin higher education for the twenty first century and that the introduction of a work based learning module into all undergraduate programmes of study would be one way to establish these foundations for learning. In the next chapter I consider recent developments in higher education which I believe provide some support for this contention, and in the final chapter I suggest a model which, on the basis of my research, could serve to maximise the potential of work based learning for promoting the development of autonomy in higher education students.

7



SHAPING UP TO THE PRESENT

*.....what is it to be wise?
'Tis but to know how little can be known;
To see all others faults and feel our own
ALEXANDER POPE (An Essay on Man, Epistle IV)*

Since the 1970s when Dearden prompted further debate about the value of autonomy as an educational aim, discussion about the nature and purpose of education at all stages has been entered into by politicians, academics and pundits, and the issue has been addressed with increasing urgency as the 21st century approaches and Britain struggles to maintain economic equilibrium in the global market.

The notion that an educated workforce is the key to economic success has been current throughout this century, as illustrated by the changing relationship between education and industry outlined in chapter 3. But it is only in recent years that questions have been asked about the type of education that is most appropriate for citizens and workers in the next century. Personal experience began to be valued as a teaching and learning strategy, most notably by David Boud (1988, 1993), and was also recognised as a basis for assessment and development, in the guise of accreditation of prior experiential learning. The ascendancy of academic over vocational qualifications began to be challenged with the introduction of NVQ and GNVQ qualifications, and at the same time serious concerns emerged about claims of falling standards of literacy and numeracy among the population as a whole, but particularly among those who were still within the education system.

It was in this context that I undertook my research and it was in response to concerns about levels of achievement that Sir Ron Dearing was asked by government to report on education for 16 to 19 year olds, and subsequently on Higher Education in the United Kingdom. Both reports focus on issues which are relevant to my investigations into autonomy, work based learning and higher education, and they help to place the debate, which was initiated by Dearden in largely philosophical terms, into an immediate practical context.

The Dearing Report, 'Review of Qualifications for 16 - 19 Year Olds' (Dearing, 1996) dealt with two major areas of concern: the academic /vocational divide, and lack of achievement in the key skills of communication, numeracy and information technology. His recommendations included the creation of a coherent set of national qualifications which could embrace both the academic and the vocational pathways to higher education and beyond, and which would recognise the importance of key skills by identifying certain levels of achievement in these areas as a prerequisite for award of the qualifications. In the discussion on key skills, Dearing also considers the question of what employers value in their employees, and cites as examples four

general skills which the GNVQ is intended to develop: skills in working with other people; presentational skills; a problem-solving approach, and the ability to manage one's own learning as a necessity in a society that needs to be committed to lifelong learning. (Dearing, 1996. para.5.4)

GNVQ courses are modular, experiential, involve establishing clear learning outcomes, and are assessed largely by portfolio evidence. The University College Chester model of work based learning for academic credit adopts a very similar framework, and, as my research has shown, has similar benefits for the development of these skills.

Another benefit of work-based learning can be inferred from a section of the report which deals with under-achievers. Dearing refers to the motivational value of 'education related to the adult world' and suggests that it

offers potential for those who fail to see any point or relevance to school or a traditional academic curriculum. This is especially so if a part of the student's development post-14 can be in a different environment, such as a college of further education, the workplace or simulations of it. (Dearing, 1996, para. 7.3)

My own experience of taking disaffected pupils to the local further education college testifies to the truth of this, as do the observations of many of the students in my study who referred to the motivation and fulfillment that came from having a job to do in what they saw as the real world.

The importance of developing an individual's ability to manage her/his own learning is recognised in the recommendations relating to the National Record of Achievement (NRA), which is seen as 'an important vehicle for recording achievement and planning future learning' (Dearing, 1996, para. 4.10). Dearing does not identify the skills required for planning and managing one's own learning, but he does suggest that 'in colleges, the use of learning agreements ... will support the development of these skills' (Dearing, 1996, para. 4.10). In fact, as well as planning their learning agreements, students undertaking work based learning are also required to reflect, self-assess and record the outcomes of their experience and, in so doing, to develop those skills which are essential for maintaining an effective NRA.

Dearings 'Review of Qualifications for 16 - 19 Year Olds' appears to have acted as a catalyst within higher education, highlighting issues which for some time had been causing concern and suggesting possible ways forward which although not addressed to higher education institutions would inevitably impact upon them if implemented. In the following months a number of bodies and institutions demonstrated that they were aware of the implications of the 'Review of Qualifications' and were addressing some of the issues it raised.

In May 1996 Government Ministers established a Steering Group to undertake a review of the National Record of Achievement, which reported in December of that year. The main recommendations of the Steering Group included the creation of a 'Progress File' which would be designed for use throughout people's lives, with all 14 to 19 year olds having the opportunity to use the Progress File, which should be available free to all young people at least from the age of 14. In addition, 'employers, schools, colleges of further education, universities and training providers should be invited to make Progress File (sic) available to all individuals as part of their programmes of learning' (National Record of Achievement Review, 1996, p.21).

The Department for Education and Employment funded an Open University project to provide 'guidance and materials to significantly enhance the skills development and achievements of students' (Open University Vocational Qualifications Centre, 1997, title page). The pilot pack contains materials for students and for tutors which are designed to develop the skills of 'working with others' and 'improving own learning material' as well as the key skills of communication, numeracy and information technology highlighted by Dearing.

At an institutional level, individual universities developed their own approaches to key skills. The Centre for Careers and Academic Practice at Oxford Brookes University, for example, produced a 'University List of Transferable Skills', which included self-management, learning skills, communication, teamwork and problem solving, and identified the abilities which characterised successful use of the skill¹. A similar approach was adopted by De Montfort University which listed 'PTS (Personal Transferable Skills) headings, competences and indicators of evidence', under the four main headings of problem solving, working with others, communication, and personal effectiveness (De Montfort University, 1996).

In Liverpool, three institutions established a joint working party to consider the key skills issue. With funding from Merseyside TEC, representatives from Liverpool University, John Moores University and Hope University College came together to look at how key skills could be mapped onto undergraduate programmes, using as a benchmark the six skill areas identified by the National Council for Vocational Qualifications: communication, numeracy, information technology, managing own learning, problem solving and working with others. Each institution then produced its own guidelines on how to incorporate these key transferable skills into the curriculum. Liverpool University with Hope University College and John Moores University produced guidance documents for university staff (Borland, 1997; LJMU, 1997) which emphasise the importance and relevance of transferable key skills, both for academic study and for employment.

¹ handout from a lecture given by Alan Jenkins: Oxford Centre for Staff & Learning Development Policy, March 1997.

The introduction to the Liverpool University key skills handbook for staff notes that increasingly the employer asks the graduate, 'So you have a degree. What else do you have to offer?' and points out that these skills are 'transferable between jobs and between spheres of activity beyond employment. As such they demonstrate an individual's adaptability, flexibility and personal resourcefulness. They are also skills which are central to any academic course' (Borland, 1997, p.1). The handbook itself is a practical document, advising staff on how to recognise the key transferable skills and suggesting ways in which staff can enhance their further development through the existing curriculum.

The Key Skills Handbook produced by John Moores University, on the other hand, seems to be aimed more at raising awareness of the issue among staff than offering practical advice, although readers are directed to the Academic Development Unit for further information and advice. This handbook also stresses the importance of key skills for academic study and employability, and refers to existing proformas for mapping key skills across the curriculum. However, it goes one stage further than the Liverpool handbook and proposes that key skills should be assessed, to which end 'we have devised a method of assessment which can be used either to additionally / externally accredit or become an integrated part of existing modular assessments' (LJMU, 1997, p.6). In taking this approach LJMU build on Dearing's proposals for assessment of key skills at 16 to 19 (Dearing, 1996) but also foreshadow the importance which is placed on key skills development in the Report of the National Committee of Inquiry into Higher Education (NCIHE, 1997).

This Committee was established in 1996 by the Secretary of State for Education and Employment to make recommendations on the development of higher education in the UK for the next twenty years. Under the chairmanship of Sir Ron Dearing it undertook, and reviewed the evidence from a wide ranging research programme which included seven specially commissioned projects, two joint projects and eight other projects of interest (Dearing, 1997). In their terms of reference the Committee was asked to have regard to a number of principles, two of which have particular relevance for this study: firstly, 'there should be maximum participation in initial higher education by young and mature students and in lifetime learning by adults, having regard to the

needs of individuals (and) the nation' and secondly, 'learning should be increasingly responsive to employment needs and include the development of general skills, widely valued in employment' (Dearing, 1997). In the final report, the issues related to these principles are discussed most fully in chapter 8, 'Students and learning', and chapter 9, 'The nature of programmes'. All quotations from the report included here are referenced by chapter and paragraph number.

Referring to the next generation of students, the Report suggests that they will come from 'a broader spectrum of cultural backgrounds and abilities. Many of them will be mature and increasingly aware of the knowledge and skills that are valued in employment' (8.1). However, my study suggested that being aware of such knowledge and skills is not the same as possessing them, and while such awareness should serve to increase the attractiveness to students of courses which undertake to foster them, even mature students with considerable experience of the world of work can benefit from the opportunities provided by a structured programme of work based learning. Students who come from a background of employment may have learnt from experience, but unless they have had cause to reflect on their work it may not have been internalised into experiential learning. They may have learnt that and how, without learning 'that I can'.

The Report refers to the consensus that exists among educators that 'depth of understanding is fostered by an active approach to learning and by forging the links between theoretical and practical aspects of the subject' (8.3); a view that is supported by the evidence of this study. The importance of a supportive framework for students' learning is emphasised in general terms, when the Committee refers to the fact that the need to enhance the effectiveness of teaching and learning 'places a premium on wider support and guidance for the student' (8.4). More specifically they state that 'an effective strategy will involve guiding and enabling students to be effective learners, to understand their own learning styles, and to manage their own learning.' (8.15), which is precisely the sort of guidance the students at University College Chester received from the work based learning support programme.

The value of work based learning is acknowledged in the observation that evidence to the Committee from employers ‘shows that they value the contribution work experience makes to a range of personal skills and students’ understanding of the world of work’ (8.16) and passing reference is made to the fact that ‘the educational value of such work is enhanced if the student is encouraged and helped by the institution to reflect on the work experience’ (8.16): a statement which endorses one of the central arguments of this study.

The issue of work based learning is returned to in Chapter 9 of the Report, which focuses on the nature of programmes in higher education, including ‘the breadth and depth of programmes’, ‘skills in higher education’, ‘the relationship between work and other experience in higher education’ and ‘the assessment and recording of student achievement’ (9.2). In all of these areas the commentary appears to offer more support for the principle of work based learning as a focus for the development of general skills and capabilities than the Committee’s summative recommendations might suggest.

Referring to the breadth and depth of programmes, they observe that ‘in a world which changes rapidly, the nation will need people with broad perspectives’ (9.3) and while acknowledging that highly specialised knowledge and skills are prized in areas such as medicine, they also note that

employers are also concerned about the general capabilities and potential of those with higher education qualifications, not just about the subject they have studied ... they are often looking for rounded but adaptable people who can successfully tackle a range of tasks and be effective members of a team. (9.4)

As my research has shown, these are the very qualities that can be developed, and assessed, through work based learning for academic credit. The Committee considers that breadth of study would ‘assist students ... to think divergently and to integrate information and knowledge from a variety of sources’(9.8), but the evidence from my research suggests that these are skills which have to be deliberately developed in students, and again work based learning has been shown to be an appropriate vehicle for doing this.

The demand for greater breadth in programmes of study echoes Dearing's observation in his earlier report (Dearing, 1996) that 'many schools, colleges and universities see breadth in achievement as more valuable than further specialization' (Dearing, 1996, p.22), and implicitly endorses my own view that holistic development can be as valid an educational aim as academic excellence.

In the section on skills in higher education programmes, the NCIHE Report refers to the responses to the Committee's national consultation exercise which revealed a wide range of skills being valued by various groups with 'no consensus about a definitive list' (9.15). The examples given include: ability to use information technology, to think critically, to use cognitive skills, practical skills, continuous learning, behavioural and interpersonal skills, problem identification and solving; information appreciation and management, communication, general awareness, intellect, knowledge, willingness to learn, self management and motivation, team working (9.14 - 9.16). It may be noted that every one of these skills features in the students' evidence used in my research.

The Committee acknowledges that 'it may be argued that to devote time to the development of skills is a diversion from a student's main studies' (9.17) but the tenor of the Report is such as to suggest that this is not necessarily an argument they endorse. They achieve a compromise by identifying just four skills which they believe are 'key to the future success of graduates whatever they intend to do in later life' (9.17). These are: communication skills, numeracy, the use of information technology, and learning how to learn.

If these four key skills are interpreted in broad rather than narrow terms, allowing, for example, that communication includes behavioural and interpersonal skills and teamwork, or that the use of information technology is a practical skill, they can be seen to encompass all the skills mentioned by the Committee's respondents. Learning how to learn is a particularly complex skill which is predicated on a number of subskills or capacities, including metacognition. Unlike the other three key skills, it cannot be taught but, like autonomy, it can be developed, by providing students with a range of appropriate strategies which can help them identify their preferred learning styles and reflect on learning experiences in a meaningful context which encourages self-

motivation. One of the aims of such reflection is to encourage the students to develop a realistic appreciation of their own strengths and weaknesses, and this is acknowledged by the Committee when they observe that ‘ideally students should be able to diagnose deficiencies for themselves and decide how to address them.’(9.20)

The Committee recognises that different institutions and different programmes of study will wish to emphasise particular skills, but maintains that ‘it is important that institutions are explicit about the skills being developed as part of a programme’ (9.21). They recommend specifically that ‘institutions of higher education begin immediately to develop, for each programme they offer, a ‘programme specification’ which ... gives the intended outcomes of the programme in terms of ... knowledge and understanding ... key skills ... cognitive skills ... subject specific skills’ (9.53 Recommendation 21). Such a programme specification describes precisely the learning agreement which proved to be central to the experiential learning of the students in my study.

The fact that the development of particular skills, for example communication skills, was integrated into the work based learning programme alongside more specific learning outcomes, gave them a relevance for the student which might not have been immediately obvious had they been taught separately. As several of them observed, it was only when they were in the work placement situation that the relevance of some of the elements in the support programme became clear to them. The Committee argues similarly that ‘in the long term there is considerable advantage in embedding skills into programmes’ (9.24) and although they note that ‘this will require an initial investment to redesign programmes to include skills and to train staff in feedback and assessment techniques’ (9.24) it is clear from the developments in Liverpool described earlier that some institutions had begun this work before the Report was even published; a fact that is acknowledged in the Report itself (9.25). As the authors note, ‘most universities consider skills development to be a part of their mission and plans for the future.’(9.25)

Although the section of the Report which deals with the integration of skills development into existing programmes is followed immediately by the Committee’s discussion on the relationship between work experience and higher education, there is no mention of the value of work based learning as a vehicle for promoting key skills.

Instead, the authors focus on the value which employers place on new recruits having had work experience (9.27). They acknowledge also its value to the student, noting that, 'for many employers and graduates, work experience makes a real difference.' (9.29)

The Report refers in passing to the value of reflection, concluding that 'those with higher education qualifications should ... be able to reflect constructively on issues related to work, such as how they have managed situations or learned from work experiences' (9.30), but there is no mention here of the influence that work based learning can have on the student's subsequent academic progress, which is demonstrated by the students in my study who noted that they had learnt new skills or knowledge which would help them in their final year at College. The Report does, however, touch on this point in a discussion of the Shell Technology Enterprise Programme, noting that one year after the programme 61 per cent of the students involved 'felt that their academic work had benefitted from the skills learnt on the programme.' (9.34)

The Committee recognises that work based learning is particularly valuable for both the employer and the student when 'the work is treated as a structured part of a programme, and its progress is monitored by both the employer and the institution' (9.31). They go on to suggest that, as many students will already have experience of work, 'the need for work experience in particular programmes, or for particular students will vary' (9.32). While it is true that mature and part time students may have spent many years in work, and that even younger full-time students will have had temporary jobs at some stage, my research suggests that in terms of developing the skills and capacities which are valued by employers, and which underpin autonomy, the maturity or prior experience of the students bears little relation to the extent to which they can develop further through a structured programme of work based learning. I would suggest that since all such programmes should allow for the individual needs of the student, with regard to the nature of the placement itself and of the learning agreement, prior experience should be taken into consideration, but should not provide exemption.

Clearly if all higher education students are to undertake work based learning as part of their programme of study there will be problems in finding appropriate placements, and in addressing this concern the Committee cites the Shell Technology Enterprise Programme (STEP) as a valuable initiative. This is a national scheme which places students 'in small and medium sized enterprises for eight weeks during the summer vacation of (generally) the second year of their programme' (9.33) and which has been shown to have benefits for the students' subsequent employability, and also for the willingness of the businesses concerned to employ graduate staff. The benefit for the students' subsequent academic work has already been mentioned, and 45 per cent of students also reported 'considerable development of their personal skills' (9.34). I would suggest that a structured programme which emphasised these skills might result in a far larger number reporting 'considerable development'.

The Committee makes the expansion of work based learning opportunities a key recommendation: 'that the Government, with immediate effect, works with representative employer and professional organisations to encourage employers to offer more work experience opportunities for students' (9.35, Recommendation 19), and they suggest a number of options (9.36) which, if adopted, would lead to a flexible pattern of placement opportunities across the country and throughout the year, allowing institutions to expand the number and variety of work based learning programmes on offer.

However, I would suggest that if these programmes are to be integrated fully into the institution's curriculum, and if students are to gain maximum benefit from the experience of work based learning, it will be necessary for them to be subject to academic assessment, and ideally to be awarded academic credit, since without the credit, the assessment could be devalued. In the discussion on assessment in the NCIHE Report the Committee make a number of observations. They recognise its various functions as a learning aid, an evaluation strategy and a quality assurance instrument, and stress that 'to achieve its purposes, assessment ... needs to be fair, valid and reliable' (9.38). They note that with the increased modularisation of courses continuous assessment has become widespread, and acknowledge that 'assessing the performance of students over time and in a variety of ways provides a more realistic

and holistic view' (9.41), but also point out the implications of this for staff in terms of increased work load. The Report expresses the Committee's concern that the design of learning programmes is 'often divorced from anything but the most general consideration of the assessment process'(9.42), and I would suggest that this has been a weakness of some of the work based learning programmes considered in Chapter 3, and that the integration of assessment into the design of the University College Chester work based learning module is one of its strengths.

As well as assessment, the Report addresses the issue of recording and reporting, and refers to 'a large minority view, more marked among employers, that the honours classification system had outlived its usefulness ... given the varying aims of degree programmes' (9.44). The solution that the Committee offers as an alternative to the honours system is one that could accommodate assessment of work based learning for academic credit, and allow it equal status with other academic modules. Building on the recommendations in the 'Review of Qualifications for 16-19 Year Olds' (Dearing, 1996), they propose the introduction of a 'Progress File' which would have two major elements:

- an official record of achievement or transcript, provided by institutions;
- a means by which students can monitor, build and reflect upon their own personal development. (9.48)

The use of a Progress File, they suggest, 'could help to improve links between formal and informal learning and help people to value what they can do as well as what they know'(9.47). In this respect alone the Progress File would complement the aims of work based learning, but the Report also specifically refers to work based learning as providing material for inclusion in the second element of the file (9.50). The work based learning portfolio used in the University College Chester model already provides a means for students to 'monitor, build and reflect upon their personal development' and although it would be impractical to retain the whole document in a Progress File, summarising the portfolio for inclusion in the File could be a valuable exercise for the student, reinforcing the lessons that have been learnt.

While the Committee acknowledges the place of work based learning in the second part of the File, I would argue also for its inclusion in the first part. For students to

benefit from a structured programme of work based learning, they must be assessed, and from that assessment it should be possible to create a 'formal transcript recording the student's achievements' (9.52) which can be included in the first part, thereby according work based learning the same status as other learning modules.

If the Committee's recommendation for programme specifications (9.53) is adopted, then as my research demonstrates, it is possible to assess each student's achievement against an individualised learning agreement, whether the learning objectives relate to skills or knowledge or to the development of the personal capacities which underpin autonomy, and I believe that students should have these achievements rewarded by formal recognition.

The full report of the NCIHE is a wide ranging and far reaching series of documents, and includes 85 specific recommendations designed to shape the future of higher education for the next twenty years. Directly or indirectly it addresses the issues which underpin this thesis: what is a valid aim for higher education? what is, and what should be the relationship between education and industry? what qualities do graduates need for living in the twenty first century? how can these be developed and how can they be assessed?

The Report's recommendations are based on a large scale research undertaking; mine are based on a detailed case study. There is, however, sufficient coincidence of ideas for any institution which wishes to, or is obliged to follow the path laid down by the Report, to implement all its recommendations, and still be able to move further along the road to promoting student autonomy through work based learning. In the final chapter, I suggest how this might be done.

8



BUILDING FOR THE FUTURE

*All states can reach it , and all heads conceive;
Obvious her goods, in no extreme they dwell,
There needs but thinking right, and meaning well.
ALEXANDER POPE (An Essay on Man, Epistle IV)*

Taking as my starting point the views expressed by Dearden (1972, 1975) that a certain kind of autonomy may be a worthwhile educational aim, and that it is possible to provide conditions which may promote its development, I have established an interpretation of autonomy which is predicated on the individual possessing four capacities: independence, metacognition, self-actualisation and social awareness.

Having reviewed the relationship between education and industry over the last century, I suggested that these capacities underpin the characteristics which employers have come to value in recent years: the ability to be flexible, to problem solve, to communicate and to be an effective lifelong learner. I also examined the types of collaboration between industry and higher education which have developed as both parties acknowledged the benefits of providing students with the opportunity to undertake some form of work based learning.

On the basis of my own experiences as a learner and as a teacher, and of my reading in the area, I felt that there was potential within the structure of work based learning arrangements for it to be a useful vehicle for promoting the development of those capacities I associate with effective autonomy. After investigating a range of current models I concluded that the model of work based learning for academic credit in operation at three local higher education institutions included a range of factors which I believed would contribute to the promotion of autonomy in students.

I went on to examine evidence from a small pilot study, and subsequently undertook a fuller case study, which led me to conclude that the model of work based learning for academic credit could, if implemented effectively, promote the four capacities of autonomy. As I approached the end of this work, the report of the National Committee of Inquiry into Higher Education, chaired by Sir Ron Dearing, (NCIHE, 1997) was published, and much of what it had to say related to my own findings. Most importantly, it recognised the value for society and the economy of those general skills which I suggest are developed through the four capacities of autonomy, and it also advocated a period of work based learning for all students in higher education.

In doing so it gave some support to my own argument that the development of autonomy should be considered as a sine qua non for higher education in the 21st century and that work based learning is an ideal way to promote it. Most higher education institutions already offer some form of work based learning for some of their students, which may take the form of year long vocational placements on sandwich courses, professional practice placements, optional modules for all students, or entire courses constructed from work based modules. I would wish to argue that where such programmes exist they could and should be reviewed in order to introduce into their design those factors which appear to be effective in promoting autonomy in students. Where work based learning programmes do not form part of the present curriculum, they should be introduced as a compulsory element for all students, and the work based learning assessment should contribute to the student's final award or qualification.

However, to be effective as a vehicle for promoting autonomy, the work based learning module must meet certain key criteria, which could and should be incorporated into existing programmes as well as forming the basis for the creation of new ones by any institution which wishes to adhere to the spirit as well as the letter of Dearden's philosophy and Dearing's report.

The key criteria for a work based learning programme which is intended to promote autonomy in its students are:

- Institutional commitment to the principle of work based learning
- A college-based support programme

- Individual matching of student to placement
- Individual matching of student with work based learning tutor
- Shared responsibility for learning between student, employer and tutor
- A negotiated learning agreement
- Clearly articulated and realistic learning outcomes which will be
 - i) specific: relating to the particular student and placement
 - ii) general: relating to the development of the characteristics of autonomy
- A fair, valid and reliable assessment and award strategy which includes assessing and accrediting the student's ability to reflect on her/his experience.

Commitment by the institution.

Unless the institution which is to offer work based learning to its students is convinced of its value it is unlikely to devote to the management of the programmes the resources which are required for them to be effective. For work based learning to achieve equal status in the curriculum with other programmes of study, its economic and educational value to the institution, the students and the participating companies should be recognised by according to it equal resources in terms of staff, administrative support, and time, for planning, implementation and review. The creation of a work based learning department or faculty would be an important factor in demonstrating such commitment.

Staff, students and potential employers should be made aware of the rationale for work based learning: that it is not purely work experience, but is also intended to develop the students' autonomy, with a view to enhancing *their employability* and promoting their capacity for self-fulfillment through lifelong learning. The difference in performance between those who have learnt that or learnt how, and those who have learnt that they can, should be emphasized, particularly in the context of the Dearing recommendations on key and general skills (NCIHE, 1997, paras. 9.15 and 9.17).

The work based learning model which any institution, faculty or department adopts will depend on its circumstances, its structure and its traditions, but unless the programmes are underpinned by a guiding philosophy for the whole institution it is unlikely that they

will be granted the status required for effective implementation, or engender the necessary commitment from staff, students and commercial partners. Involving representatives from all three areas in the development or review of any work based learning programme would provide an opportunity to ensure that the underlying philosophy is understood, and should foster the commitment that comes from a sense of ownership, as the representatives discuss the most practicable ways of building the key elements into a programme which best meets the needs of the interested community.

Support Programme

This is a necessary feature of any work based learning programme which aims to develop its students' capacities for autonomy. As students increasingly enter higher education from more varied backgrounds than ever before, they will have different understandings of the nature of the learning process and particularly of the value and potential of experience as a basis for learning. The support programme will provide an opportunity to explain the rationale for work based learning, as a means of developing students not only as potential employees but also as autonomous individuals, and to highlight the opportunities work based learning provides for developing personal capacities as well as skills and knowledge.

The programme should aim to support and guide the students, by raising their awareness of, and introducing strategies for development in areas which will be important to them in achieving successful learning outcomes. When work based learning is viewed as a vehicle for promoting autonomy, the support programme should address issues such as communication, including group dynamics and non-verbal communication, learning styles, stress management, assertiveness, time management, and research and presentation techniques which could include the use of information and communications technology. The programme should also provide for the students to have access to their tutors and to their peers throughout the placement in order to discuss their progress and receive help and advice as necessary.

Many work based learning models already incorporate some such programme, either as a discrete module before the start of the placement period, or as an ongoing feature of

the placement, with students returning to their college base for a day or half a day each week, or as a combination of the two. This last arrangement offers the best model of support for the students as they can have the advantage of beginning their placement with an understanding of some of the issues which may arise, and knowledge of some coping strategies, but also have an opportunity to share concerns and seek solutions to problems as they arise throughout the placement. However the support programme is presented, if work based learning is to be effective the students must have a clear understanding of the purpose, the structure, the desired outcomes and the assessment process for the entire module before they start their placement.

My research indicated that a number of students failed to see the relevance of parts of the support programme, and I would suggest that each element of the programme should be introduced in a way which explains exactly how it supports a particular aspect of the work based learning experience. My research also showed that other students, who did benefit from the support programme, can provide excellent testimony for the effectiveness of particular elements, which could perhaps be exploited by the programme organisers after the first cohort has completed the module. Asking students who were helped by the support programme to share their experiences with those about to start the course, would help to demonstrate its practical relevance.

As Dearing's report points out, the requirement for students to adopt new methods of learning and to take responsibility for their own learning, 'places a premium on wider support and guidance' (NCIHE, 1997, para. 8.4), and if work based learning is to be effective the premium will be a heavy one.

Individual matching of student to placement

Although there was some evidence in my findings to suggest that the challenge of an uncongenial placement was seen by some students as a learning opportunity, for others who could not see any relevance in their placement, or who found their own placement in an environment which offered no challenge at all, it proved to be an inhibiting factor in their development.

The choice of placement is an important factor in maximising the potential of work based learning for promoting autonomy, and my research suggests that a placement which is clearly related to the student's field of academic study is most beneficial, in so far as it facilitates the transfer and internalising of subject knowledge, and also increases the students' motivation. Where work based learning is part of a vocational course the practice of finding placements in related industries will be established, but if, as both I and Dearing's report (NCIHE, 1997, para. 9.35) recommend, all students are to undergo a period of work based learning, then appropriate placements may be less easy to identify.

However, the students should be able to see some connection between the field of work and either their academic study or their prior experience. There should be some preliminary negotiation to ensure that the student does not feel uncomfortable with a placement, for emotional, social or physical reasons, but also to make sure that the placement will offer opportunities for new challenges and new learning.

One of the major problems associated with introducing work based learning for all students will be that of finding sufficient placement opportunities, as Dearing's report points out (NCIHE, 1997, para. 9.33), but the higher the profile of work based learning becomes among society as a whole, the easier it should be for institutions to convince their local community of employers of the benefits of offering such opportunities. As the range of available placements increases, so will the possibility of matching students appropriately, particularly if, as Dearing recommends (NCIHE, 1997, para. 9.32), it is possible to build into the curriculum some flexibility about the timing and duration of work based learning modules throughout the academic year. This might, for example, enable a number of students following different courses, to work for the same company at different times during the year.

My research suggests that, despite the pressure on local employers from the expansion of work based learning, it is not conducive to the development of autonomy to have two or more students together in a placement, particularly if they are there for different lengths of time. If it is necessary for students to share a placement, then attention must be paid to the selection of the students concerned with regard to the personalities

involved, and also to the nature of the work they will be engaged in. Collaborative projects can provide valuable learning opportunities, but undue competitiveness, or the overshadowing of one individual by the others should be avoided.

For this reason personal negotiation of placements would seem to be far more effective than computer matching. Although, as the number of available opportunities increases, computerisation will be almost inevitable, the need for careful matching will have implications for the construction and use of any database, which must contain sufficient detail to enable unsuitable placements to be rejected as well as appropriate ones to be identified. Even where this is done, computer matching should be followed by personal negotiation to allow the student, or the employer, to express any reservations s/he may have and receive either reassurance or an alternative suggestion.

Individual matching of student with work based learning tutor

In my own lifetime of teaching and learning experiences, one factor which has always seemed to be of the utmost importance is that a learner needs the support of a trusted mentor, and this is no less important when s/he is learning to be autonomous than when s/he is learning to read. The evidence from my research suggests that students were quick to identify lack of commitment or interest from their work based learning tutors, and that, even where their circumstances allowed them to succeed without this support, the effect on their motivation and self-esteem was negative. On the other hand, some students were able to identify a supportive tutor as one of the key factors in helping them achieve their learning outcomes, and, in my analysis, in helping them develop towards autonomy.

Any member of an academic staff who takes on the role of a work based learning tutor, whether s/he is based in a discrete work based learning department or a subject faculty, should share the institution's commitment to the aims of work based learning and have a clear understanding of its value for the student. Beyond this, where possible, both student and tutor should have the opportunity to request a transfer to another tutor at any time during the work based learning period if they do not feel that they can establish an effective relationship. Furthermore, if this facility is allowed, it must be made clear that no blame will attach to either student or tutor if such a request is made,

but that it will be taken as a mature recognition of the importance of the student/tutor relationship for effective learning.

Shared responsibility for learning between student, employer and tutor

One of the aims of work based learning is to encourage the student to take responsibility for her/his own learning and this is an ability which needs to be developed. All three sides in the tripartite framework, the tutor, the employer and the student, should be aware of their role in promoting this development.

The tutor should have an overview of the entire work based learning experience, understanding its rationale and appreciating its value, but also being aware of the content and format of the support programme, of the assessment procedures and criteria, and of the nature of the employment that the student is to undertake. Only then will s/he be in a position to help the student to establish a meaningful and achievable learning agreement, which will involve negotiating with the employer to ensure that opportunities will exist for the development of both specific and general skills.

It should be part of the tutor's role to ensure that the employer understands the institution's requirements for work based learning which is to be academically assessed, and although on occasions it may be practical to delegate this to the student, the responsibility should rest with the tutor. S/he should also be aware of the institution's responsibility to the employer, recognising the importance of maintaining positive relationships with the business community on whom the success and expansion of work based learning depends. It may therefore be necessary to compromise on some aspects of the learning agreement in order to meet the needs of the employer, but this is a task which should not be delegated if the student's interests are to remain paramount, as the tutor will need to ensure that the agreement still contains opportunities for developing autonomy. Tutor contact with the employers should continue throughout the placement period to ensure that they remain satisfied with the student.

The tutor should also have a pastoral role with regard to the student, and ensure that s/he is accessible to the student throughout the placement period to discuss problems and progress. This may be a formal arrangement within the support programme, or an

informal system established between the tutor and the student, but in either case its success will depend on compatibility between the two. This role may also extend to the tutor taking part in formative assessments where these are a feature of the programme, but even if s/he is not present during all formal assessments, s/he should ensure that the student is adequately prepared in terms of understanding what is required and having appropriate material and methods for presentation.

Although assessment strategies will vary with the placement, the tutor should be directly involved in the final assessment. Having helped the student negotiate her/his learning outcomes, the tutor should be in the best position to assess how far they have been achieved. Although assessments must be reliable and valid, and therefore adhere to clearly laid down guidelines and criteria, they must also be fair, and because of the individualised nature of work based learning there is a strong argument in favour of some more subjective element in the assessment, which would, for example, allow the tutor to introduce any mitigating circumstances which may have affected the student's performance.

The employer also has a responsibility for the student's learning. S/he too should understand the purpose of the work based learning programme s/he is engaged with, and must be involved in the initial negotiations to establish a learning agreement which is useful to the company. If it is not, the student will suffer as much as the employer, as the notion of having a 'real job' is important to the student's self-actualisation.

The employer should also ensure that the student has an identified workplace mentor, and that this person also understands and is sympathetic to the nature and purpose of work based learning and is familiar with the student's learning agreement. Ideally the mentor should be an individual who is working in the same area as the student, so that s/he is on hand to offer help and guidance, and answer questions, as well as to identify problems which may need to be relayed to the tutor.

The employer and/or mentor will also have a key part to play in assessing the student's performance, particularly with regard to the specific learning outcomes which relate to the job of work being undertaken, but evidence from the mentor should also be sought

to contribute to the assessment of the student's overall development, in areas such as initiative, creativity, confidence and social awareness.

The ultimate responsibility for maximising the potential of work based learning lies with the student, and my research suggested that the students in my sample took this responsibility seriously, in part because the module was to be academically assessed, but also because they were open to the new learning opportunities that such an experience could offer.

Even more than the tutor and employer, the student needs to have a clear understanding of the aims of work based learning in general, and of what will be required of them, in the workplace itself, in transforming their experiences into learning opportunities through reflection, and in presenting the outcomes for assessment.

A negotiated learning agreement

It is through the negotiated learning agreement that students should be made aware of their responsibilities during work based learning. Once a satisfactory placement has been found, the student should meet with the employer and tutor to discuss the nature of the work to be undertaken. The work will need to be appropriate for the type of placement being provided, both the nature of the workplace itself, and also the length and requirements of the work based learning programme, which may be a sandwich course where the student is paid, voluntary vacation work, or something in between. It could, for example, focus on a discrete research project to be undertaken by the student alone, participation in an ongoing project with members of staff, gaining hands on experience in a variety of tasks, or engaging in structured observation.

Whatever the work, it should be clearly articulated in terms of specific learning outcomes: what will the student be expected to have achieved in the workplace, by what point in the timescale of the placement, and how will s/he demonstrate this achievement? It is important that all these elements are addressed in the learning outcomes, since these will form the basis for the academic assessment.

As well as specific learning outcomes, the learning agreement should also include outcomes which relate to the general skills and capacities which work based learning is intended to develop. When the intention is to promote the capacity for autonomy, there must be learning outcomes that relate to the development of independence, problem-solving skills and creativity, self-confidence, and social development, which includes both interpersonal communications and a more general awareness of the responsibilities of an employee. There may also be outcomes which relate to the key skills identified in Dearing's report (NCIHE, 1997, para. 9.17). The student may, for example, be required to demonstrate that s/he has used both verbal and written communication effectively, or employed information technology, or handled numerical data.

There is a danger that given the potential of work based learning for the development of skills, knowledge and understanding in vocational, academic and personal spheres, the number of learning outcomes could become unwieldy and that both student and assessor could be overwhelmed by the evidence required to demonstrate achievement. However, the programme organisers, informed by the philosophy of the department or institution, should have a clear idea of where the emphasis should be placed, and adjust the required learning outcomes to reflect this.

When the learning outcomes are being negotiated between the student, employer and tutor, it is likely that the emphasis will be on the nature of the work to be undertaken, but it should be the responsibility of the tutor to ensure that the general outcomes are not neglected, and that whatever work is agreed upon provides opportunities for these to be addressed. My research also suggests that although all the learning outcomes should be clear and precise, the specific outcomes at least should be open to renegotiation at any stage during the placement, if either the student or the employer is failing to benefit from the original programme.

As the learning outcomes are the key elements of the learning agreement and the basis on which the student is to be assessed, then each one should be accompanied in the learning agreement by a statement of how, when and by whom it is to be assessed, the success criteria, and the weighting which will be given to each outcome towards the final award.

A fair, valid and reliable assessment and award strategy.

As Dearing's report suggests, 'assessing the performance of students over time in a variety of ways provides a more realistic and holistic view' (NCIHE, 1997, para.9.41), and therefore the learning outcomes should be assessed both formatively and summatively. Strategies may include project reports, work diaries, reflective reports, formal or informal oral presentations and should encourage self-evaluation.

Assessments may be conducted by the tutor, the employer, the student, and outside assessors, or any combination. It may be more relevant, for example, for the employer to be the chief assessor of a student's project report, whereas the general learning outcomes would more appropriately be the concern of the tutor and the student, perhaps with the employer providing additional testimony of workplace performance. In addition, any summative assessment should be open to the involvement of independent moderators.

Whatever method is adopted, the assessment process must, as Dearing maintains, satisfy three major criteria. It needs to be fair, valid and reliable (NCIHE, 1997 para.9.39). In order to achieve this it will be necessary to identify clearly what is being assessed, whether it be the outcomes of the project, the understanding of the project, the presentation, the quality of the reflection, or the key skills that have been demonstrated. It should also be made clear what criteria are required for different mark ranges, and how these marks will contribute to the student's overall degree classification. If Dearing's recommendations are followed and formal classification gives way to a more meaningful description of student achievement (NCIHE, 1997, para.9.52) it will still be necessary to recognise formally the different levels of achievement which are characterised by certain standards of student performance.

Depending upon the degree of importance the institution accords to the different learning outcomes, the assessment and award system will include some weighting in the credit given for each one. Where the work based learning is an extension of existing work experience practices, for example, the specific learning outcomes might carry more weight than the general ones, but when the institution is offering work based learning with a view to promoting autonomy, the assessment of the general learning outcomes should contribute at least as much as the specific ones to the overall award.

Whatever the weighting, I would suggest from the evidence of my research that oral presentation, negotiated self-assessment, and a portfolio of evidence are all useful, if not essential strategies for assessing attainment in the general learning outcomes.

Oral presentation:

Requiring the student to present an oral report on one or more of the learning outcomes serves a number of purposes. Firstly, it provides an opportunity for her/him to demonstrate attainment in the specified outcome, and may involve self-assessment of the degree of success achieved. Secondly it can provide a vehicle for the assessment of communication skills, and in particular presentation skills which may include evidence of the use of audio-visual equipment or information technology. Thirdly it can facilitate assessment of the student's understanding of the knowledge, skills or capacities which the learning outcome was designed to develop, by providing an opportunity for the assessors to question the student. Fourthly, it introduces the student to, or gives further experience of, a style of reporting and communication which is increasingly used in industry, and can help develop the student's confidence in this area. Finally, it provides an opportunity for those students who communicate more effectively through the spoken than the written word to demonstrate their knowledge and understanding with greater clarity than they may achieve through written evidence.

Because, as my research suggested, some students will find oral presentation a daunting prospect, the introduction of appropriate skills and strategies should be included in the work based learning support programme. It may also be advisable to use a presentation in the first instance for formative assessment which does not contribute to the award mark, but creates an opportunity for the assessors, who may be the tutor, employer or fellow students, to provide constructive criticism. If the student has had an opportunity to rehearse and develop the relevant skills, there will be less likelihood of the performance being distorted by stage fright, and a second presentation, as part of the summative assessment procedure, may be expected to reflect more accurately the student's abilities.

Dialogical assessment:

As with the oral presentation a dialogical assessment procedure can make a contribution towards the student's development as well as to the overall assessment of work based learning for academic credit. The basis for the procedure is a negotiated self-assessment, where the student has an opportunity to discuss with the tutor, and if possible also the employer, her/his achievements during the work based learning period.

In order to be effective in this situation, which should be less formal than the oral presentation, the student will need to have reflected on her/his own learning and development and identified strengths and weaknesses, and s/he will also need to consider how to present the outcome of these reflections in a positive light. The process might therefore be expected to help develop the student's self-awareness. Because the student is able to set the agenda, it provides an opportunity for her/him to demonstrate achievement in areas which may not have been covered by the learning agreement, and which might otherwise be overlooked. This may not be important to the final assessment, unless some valid means of incorporating serendipitous learning into the formal assessment criteria could be developed, but it may be very important to the student's self-actualisation.

From the assessor's point of view, dialogical assessment can provide an opportunity for probing the student's understanding and depth of knowledge, and if used as a formative strategy, the tutor, or employer, can provide help and guidance where appropriate. The negotiated nature of the assessment allows the tutor or employer to contribute to the process by highlighting achievements which they recognise but the student undervalues, or conversely exposing weaknesses if the student is thought to be exaggerating her/his success. As my research suggests, a relationship of trust between student and tutor is important if this strategy is to be effective and not undermine the student's confidence.

Dialogical assessment can contribute to the assessment of communication skills, of specific and general learning outcomes, and of qualities such as self-awareness, self-esteem, and social awareness. If the procedure is used both formatively and

summatively, it should be possible to assess the progress the student has made in these areas as a result of work based learning.

Portfolio

When work based learning is to lead to an award of academic credit, it will usually be necessary for there to be written evidence of the student's achievement which can be moderated in order to validate the assessment. As the name indicates, the point of work based learning is that the student should learn from her/his experiences in the workplace, and as my research has shown, that learning may take the form of new knowledge and understanding (learning that), new skills (learning how), or new capabilities (learning that I can). These types of learning will be reflected in the learning outcomes that are negotiated in the learning agreement, and the importance attached to each will vary according to the requirements of the curriculum of which it forms a part. Work based learning which is integral to a professional qualification, for example, may be expected to emphasise knowledge and understanding; vocational programmes may place the greatest value on skills development, but programmes which are intended to develop the capacities and attitudes of autonomy in individuals who are to become fulfilled citizens and lifelong learners will focus on personal capabilities.

My research indicates that the most effective way of acquiring evidence about the nature, the quantity, and also the quality of the student's learning in all of these areas is through the use of a portfolio, in which the student records how, and with what degree of success s/he has achieved the learning outcomes. However, if the requirements for the portfolio are framed appropriately, it can become more than just an assessment tool and be the key which enables the student to transform learning from experience into experiential learning.

The central element of the portfolio must be the evidence which relates directly to the agreed learning outcomes, as this will form the basis for assessment, but it could also include an introduction to the organisation providing the placement, an ongoing progress record, or a summary evaluation of the programme as a learning experience.

Producing an introduction to the placement would provide opportunities for the student to develop research and interpersonal skills, as well as allowing her/him to recognise where her/his own work fits into the local, national or even international operation of the organisation. As my research indicated, this can enhance the students' motivation, as well as enabling them to undertake their own work more effectively through having an understanding of the internal politics of the workplace.

Maintaining a progress record not only allows the student to chart her/his own development through the period of the placement, thereby enabling her/him to reflect more clearly and accurately on the experience in retrospect, but it can also provide a means of monitoring the progress of the project or work plan which forms the basis of the specific learning outcomes. It can help the student in forward planning, encourage her/him to implement time management strategies, or allow her/him to identify developing problems, so that s/he can seek assistance before they become crises.

The section of the portfolio in which the student reports on her/his learning outcomes should be the most valuable in terms of transforming learning from experience into experiential learning, but this will depend on how the requirements for the portfolio are framed. Asking the students to record what they have learnt is to encourage them to catalogue their new knowledge and skills in terms of 'I have learnt that', or 'I have learnt how to', and, for some programmes and some learning outcomes, this may be the appropriate and required response. Similarly, asking how they learnt, may result in descriptive accounts of activities undertaken, and while this may contribute to the students' awareness of their own preferred learning styles and to their development in learning how to learn, it will not necessarily help them internalise the lessons of work based learning.

My research suggests that in order to realise the potential of work based learning for promoting the capacity for autonomy, the student must be required to reflect on the experience, and the best way of ensuring that this happens is to build the requirement into the assessable learning outcomes. A useful, if unoriginal (Schon, 1987; Andresen, 1994) way of demonstrating the value of reflection in transforming 'learning that', and 'learning how' into 'learning that I ...' is to build on the metaphor of reflection. The

student, looking into a mirror before undertaking work based learning will see a person who knows things, can do things, understands things, and feels things. Most students, looking into the same mirror after work based learning will, if the evidence of my research is to be believed, see a different person. Asking the student to describe and account for these differences, will reveal not just the quantity and quality of her/his learning, but also the extent to which s/he has developed as an individual, and most importantly it will reveal the learning, and the development, to the student her/himself.

This is the process that Schon describes as 'reflecting on our reflection-in-action so as to produce a good verbal description of it' (Schon, 1987, p.31). As Schon points out, it is not a simple process, and it is even harder 'to reflect on the resulting description', (Schon, 1987, p.31) which is what the student is asked to do in the course of self-assessment. But it is important because 'our reflection on our reflection-in-action may indirectly shape our future action' because it 'begins a dialogue of thinking and doing through which [we] become more skillful' (Schon, 1987, p.31) or in this case, more autonomous.

The value of the portfolio in assessing the quality of the student's reflection will depend on the student's ability to translate her/his thoughts and ideas into the written word, and while the same could be said of any piece of writing which is used for assessment purposes, in this instance, as my research suggested, the subjective content may encourage an idiosyncratic writing style, which can obscure the points at issue. For this reason the use of a range of assessment tools which can validate the portfolio evidence is to be recommended.

It may also be useful to require the student to provide a brief summary of the portfolio, outlining the nature of the work based learning programme, the work undertaken and the most important achievements for each of the learning outcomes. Not only would this help to focus the experience for both the student and the assessors, but, if Dearing's recommendations are adopted (NCIHE, 1997, para. 9.52) it could find a permanent place in the student's ongoing Progress File.

I would suggest that the portfolio can provide the main body of evidence on which the student will be assessed to identify how far s/he has achieved the learning outcomes set out in the learning agreement. It can also be used to provide evidence of development in the key skills of communication and, if a requirement is made for the portfolio to be word processed, information technology. Above all it will provide evidence of the student's ability to learn. Despite the individual and subjective nature of much of the content, provided that clear marking criteria and a moderating process have been established at the inception of the work based learning, it should be possible to relate the marks for the portfolio to those awarded for other assessments, and establish a fair and valid award of academic credit for the work based learning module.

My research indicated that although some forms of work based learning have been included in the higher education curriculum for many years, the practice of awarding academic credit for work based learning is a much more recent development, and this is partly a result of the historical divide between vocational and academic qualifications. It is also related to the perceived difficulty of validating assessment for work based learning in academic terms. However, as more and more institutions build on the work of people like Norman Evans and Derek Portwood, of institutions like University College Chester, and of pragmatists like Ron Dearing, they will come to recognise that the economic and educational benefits of awarding credit for work based learning outweigh the practical difficulties of creating award bearing programmes.

However, there is still a long way to go if work based learning is to be made to realise its full potential as an educational philosophy. In the first instance it must be made not just available to all students, but compulsory for all students in higher education. Secondly all work based learning programmes should be assessed, and that assessment should contribute to the student's final award or qualification. Thirdly, and here lies the greatest challenge, that which is being assessed should not be the students' academic attainments (knowing that), or their vocational skills (knowing how) but their autonomy (knowing that I can).

To acknowledge that the development of autonomy is a worthwhile educational aim, as Dearden did in the 1970s, is acceptable. To recognise that it can have economic and

social value, as Dearing did in the 1990s is understandable. But to suggest that its importance as an educational aim should match, or even outweigh, academic or vocational learning is to challenge the traditional assumptions of higher education with radical reform. It would not only require an acceptance that the aim is worthwhile, and that new types of learning experience, such as work based learning, will be required to achieve the aim, but it would involve a new perspective on assessment methodology. There would need to be agreement about what is meant by effective autonomy, how it is demonstrated and how it can be assessed. The validity of subjective and descriptive assessment would be a critical issue, but it is one which must soon be addressed. On the one hand school children are increasingly being measured by objective tests and databanks of scores and statistics are burgeoning, yet on the other hand Dearing's report (NCIHE, 1997, para. 9.44) recommends that higher education should move away from scores, as represented by the traditional degree classification scheme, and towards a more meaningful system of attainment descriptors. At some point these two systems will collide, and the debate will intensify.

There will always be a need for academic excellence: for researchers, scientists, engineers and wise guardians of our artistic and cultural heritage. Even in today's technological society there is a need for skilled technicians and expert practitioners both in the sciences and the arts. But there is also a need for people who are flexible, creative, responsible, fulfilled, and autonomous. The highest educational accolades have in the past been awarded to the first group. In recent years efforts have been made to achieve parity of esteem for the second group. What I am asking for, is equal recognition for the third group. It is, by its nature, inclusive: it can embrace academics and technicians, but it will not exclude those who are neither.

In 1996 the International Commission on Education published a report entitled Learning: the Treasure Within (UNESCO, 1996). In it, the authors identified four pillars which, they maintain, constitute the foundations of education:

- learning to be
- learning to know
- learning to do: and
- learning to live together.

In my struggle with the concept of autonomy, I too identified four pillars:

- the development of self-actualisation
- the development of metacognition
- the development of independence
- the development of social awareness

I would argue that though the phrases are different, the concepts are the same.

Therefore, if, having learnt to be, to know, to do and to live together we can be considered educated, then, having developed self-actualisation, metacognition, independence and social awareness, having, in other words, become autonomous, we can also be considered educated.

In this study I have identified one strategy, work based learning, whereby higher education institutions can help their students to become more autonomous; more educated. I leave it to others who share my vision of education in the 21st century to build on my experience.



DEDUCING THE RIVERS

All our knowledge is, ourselves to know
ALEXANDER POPE (An Essay on Man, Epistle IV)

I began this work with an account of my own learning experiences which were shaped by my difficulties with reading and writing. In order to understand the importance to me of what I have learnt during the course of this research, I believe it is necessary to understand the nature of my problem. Please read aloud the following passage:

.egassap eht gniraelc dna ,sniatnuof eht gninepo ylno ereh ma I
dna ,esruoc rieht ni meht wollof ot ,srevir eht ecuded oT
.elbaerga erom ksat a eb yam ,stceffe rieht evresbo ot

The effort that the capable reader has to expend in order to read that passage, is similar to that required for me to read normal printed text.

The relevance to my work of Pope's 'Essay on Man' became increasingly clear to me as I searched the poem for apposite epigraphs, but it was only when I came to reflect on what I have learnt that I realised how the metaphor in the passage I have quoted provides the key to understanding my own achievement. That it was necessary for me to reflect on my own learning and achievement became evident when I realised that for the last six years I have been undertaking a sort of work based learning. I have been engaged in a worthwhile project within a fixed timescale, which called on my prior knowledge and skills and required me to develop new capacities, in the course of which I was supported by trusted mentors and helped by the existence of a prescribed framework.

I believed when I began that I was independent, creative, self-assured, sociable and confident; except with the written word. I was never short of ideas and could express

them orally with little difficulty. But whether my audience could understand them so easily was another matter, because once I 'opened the fountains' of my thoughts, I tended to produce a deluge, and the essence of my thinking, the rivers, were in danger of becoming lost in the flood of examples, diversions and anecdotes.

As I undertook the background reading necessary for my work, I began to see how, in writing, others could make their ideas clear, so that I could 'deduce the rivers', and write down and use their key ideas to develop my own arguments. As I read through the students' portfolios to find evidence of their development I again had to struggle to find the central threads, and to write down the relevant information. I read and reread, wrote and rewrote: and still had to have my words edited and typed for me. But I came to realise that it was only through this process that I could deduce my own rivers. It was not, as Pope suggested a more agreeable task than opening the fountains. It was hard. But only by writing down what I was thinking, and revisiting my writing and arguing with what it said, and rewriting it, could I really know what I thought, and really see what I had learnt.

When I started this work, I believed myself to be autonomous. When I was writing the conclusion, I still believed myself to be autonomous. But when I came to reflect on my own learning, I recognised that I had been mistaken. True autonomy is characterised by self-actualisation and while I suffered from my inability to read and write fluently I was not self-actualised.

I can accept now that I will never be fluent in the written word, but I also know that through writing I can deduce the rivers, and I know that Mr Cook, my teacher, was wrong all those years ago. Having finished this work, and regardless of how it is judged by others, I feel that as a result of my learning experience I can, like the deaf student, Janet, say 'I am good'.

APPENDIX 1
STUDENT QUESTIONNAIRE ONE [Q1]

**WORK BASED LEARNING
INITIAL STUDENT QUESTIONNAIRE**

Name:

Date:

Placement:

1. What degree are you studying for?

2. What career do you want to follow?

3. Please give details of any previous work experience (placement or employment)

4. Did you choose your own placement?

5. What do you hope to gain from undertaking the 8 week WBL module?

6. Do you think your learning agreement will help you achieve this?

APPENDIX 1
STUDENT QUESTIONNAIRE TWO [Q2]

**WORK BASED LEARNING
RETROSPECTIVE QUESTIONNAIRE**

For each question, please circle the number which best represents your response, and please would you add explanatory comments in the space provided.

Do you think you improved your skills in any of the following areas during your work placement?

1. Communication

A lot Not at all

5 4 3 2 1

2. Co-operation

A lot Not at all

5 4 3 2 1

3. Self-reliance

A lot Not at all

5 4 3 2 1

4. Self-expression

A lot Not at all

5 4 3 2 1

5. Problem-solving

A lot Not at all

5 4 3 2 1

6. During your placement, did you use any of the knowledge/skills gained on your degree course?

A lot None
5 4 3 2 1

7. Do you think any of the knowledge/skills gained during your placement will be of value to you in your final year at college?

A lot None
5 4 3 2 1

8. Were you able to meet all the goals set in your Learning Agreement?

All None
5 4 3 2 1

9. Did you undertake any work that was not part of your Learning Agreement?

A lot None
5 4 3 2 1

10. How much supervision did you have in the workplace?

A lot None
5 4 3 2 1

11. Did you feel the degree of supervision was right for you?

Too much Not enough
5 4 3 2 1

12. Were you able to ask for help from your colleagues at work?

Always
5 4 3 2 1
Never

13. Did you find any difficulty fitting in at your workplace?

A lot
5 4 3 2 1
None

14. Do you think the aim of establishing a partnership between student, tutor and employer, with shared responsibility for learning, was achieved?

Fully
5 4 3 2 1
Not at all

15. How useful was the Friday Support Programme to you?

Very
5 4 3 2 1
Not at all

16. Do you think the work-based learning module could be improved?

A lot
5 4 3 2 1
Not at all

Thank you for taking the time to complete this questionnaire. It will remain confidential, and any evidence used in my report will be completely anonymous. Please could you return this form to me in the envelope provided.

APPENDIX 1
TUTOR QUESTIONNAIRE [T]

**WORK BASED LEARNING
TUTOR QUESTIONNAIRE**

Student: _____

Placement: _____

*For each question, please circle the number which best represents your response, and add explanatory comments in the space provided.
Thank you*

1. How far do you think that the pre-placement discussions about the student's learning agreement were truly tripartite?

Totally				Not at all
5	4	3	2	1

2. How much influence do you feel that you as a tutor had on the student's performance on placement?

A lot				None
5	4	3	2	1

3. How far do you think that the degree course as a whole equipped the student to cope with work based learning?

Totally				Not at all
5	4	3	2	1

4. How far do you think the WBL Supporting Programme helped this student to benefit from work placement?

Totally		Not at all		
5	4	3	2	1

5. How much do you think this student has gained from undertaking WBL?

A lot		Nothing		
5	4	3	2	1

Please add here any additional comments.

APPENDIX 1
EMPLOYER QUESTIONNAIRE [E]

**WORK BASED LEARNING
EMPLOYER QUESTIONNAIRE**

Student:

1. What qualities do you look for in a student coming for work placement?

2. How far do you think the work based learning module offers opportunities for the student to develop any of these qualities?

3. How far do you think the student made the most of the opportunities offered?

4. How far do you think the pre-placement discussions about the student's learning agreement were truly 'tripartite'?

5. How far do you think the student's 'learning agreement' contributed to the success of the placement?

6. How much influence do you feel that you as an employer had on the student's performance on placement?

Please add here any additional comments.

APPENDIX 2

University of Portsmouth

Partnership Office

SKILLS AND ATTAINMENT MATRICES

1. The attached matrices are designed to be used for a number of purposes relevant to the operation and assessment of programmes of study at all levels within the Partnership Programme. They present a correlation between normative performance in the areas of Cognition (Cognitive Skills) and Study, Transferable and Professional Skills at study levels from 1 to M. It is important to emphasise that the matrices are normative, and that individuals may achieve more or less than the reference (e.g., they may have reached level 2 in some areas, but level 1 or 3 in others), and that progress through the levels on a particular row may not be uniform. The content of each intersection are indicative, and intended to give examples of the types of skill or attainment to be expected. Once familiar with the matrices, you should find it relatively easy to make substitutions to translate to a skills or attainment mix in your particular field of study or endeavour.
2. The matrices may be used in a number of ways. For example, they were applied to the process of accreditation of your prior learning, to estimate the levels at which you have been working. In accrediting your APL portfolio, reference was also made to comparisons with existing University syllabuses, and/or with the requirements of professional bodies (where appropriate).
3. The matrices can give you an indication of the type of response expected at a particular level, and in the setting of learning outcomes. You should refer to the matrices when designing your learning contract.
4. Finally, they may be used in conjunction with acceptable criteria for assessment design. The grading of achievements at a particular level of study for a particular skills group or cognitive element can be obtained by matching the criteria against the illustrative attainments at a selected intersection. They may be used for the elaboration of assessment criteria at given levels for individual project work, work-based learning or individual study.

NOTE:-

We encourage you to use these matrices in any way you may find helpful. However, you should note that they are the copyright © of Mike Bement & Frank Lyons, and you must therefore seek permission and make due acknowledgement if you wish to use them in any material for publication.

3 February 1995

COGNITIVE ATTAINMENT BY LEVEL OF STUDY

<u>Cognitive Field</u>	<u>Level 1</u>	<u>Level 2</u>	<u>Level 3</u>	<u>Level M</u>
<p>1 KNOWLEDGE</p> <p><u>Descriptions</u> of facts; criteria; definitions; classifications; data organisation; principles; theories.</p>	Emphasis on "facts", terminology, the nature of the field of study. Tutor-presented material little questioned.	Widening appreciation of the scope of the field of study. Beginnings of understanding of the limited nature of the known.	Able to demonstrate confident familiarity with the more usual areas of the knowledge base or canon.	Focus on specialist areas, predicated on certainty about the conventionally-accepted knowledge base or the canon.
<p>2 INTERPRETATION</p> <p><u>Understanding</u> of knowledge in the categories in 1 above.</p>	Knowledge understood, but without integration into a generative framework.	Beginnings of a 'mapping' of knowledge into an overview of the canon.	Confident in the relationships between areas of principle and fact. Aware of the provisional nature of the state of knowledge.	Ability to deal with complexity, lacunae and/or contradictions in the knowledge base. Ability to <u>diagnose</u> - to exercise judgement based on incomplete or confused information.
<p>3 APPLICATION</p> <p><u>Use</u> of knowledge in the categories of 1 above in real situations.</p>	Rote application of principles. Reliance on guidance by tutor.	Understanding of the need to select principles and facts appropriate to the problem in hand. Applies principles under guidance.	Confident and accurate selection and application of principles to the solution of a range of problems posed externally.	Accurate isolation and identification of problems and areas of investigation. Confident, autonomous and self-reflective application of appropriate problem-specific principles.
<p>4 ANALYSIS</p> <p><u>Breaking down</u> of knowledge into its constituents in a variety of ways for various purposes.</p>	Acceptance of classifications presented by tutor. Some ability to analyse with guidance.	Ability to recognise familiar ideas or principles in texts or situations.	Identifies and classifies principles and ideas from new texts and situations.	Ability to edit complex documents. Ability to classify facts, principles and theory for a variety of ends. Ability to work from a brief.
<p>5 SYNTHESIS</p> <p><u>Bringing together</u> different elements of knowledge in a new way or within a new framework; producing new ideas or solutions.</p>	Absent or imitative.	Understands the need for the marshalling of facts and ideas in an argued case. Can produce new design ideas in closely-defined situations.	Ability to bring together principles and facts in support of an argument. Ability to design novel solutions with minimum guidance.	Ability to define, elaborate and defend a thesis. Ability confidently to synthesise novel design solutions.
<p>6 EVALUATION</p> <p>Assessment of what is known against a variety of criteria.</p>	Heavy reliance on tutor's assessment of work. Lack of appreciation of the need for criteria.	Understanding of the need for known and agreed criteria. Able to make acceptable assessments of own performance under guidance.	Accurate assessment of own levels of performance. Accurate predictions of outcome from courses of action selected.	Ability accurately to assess and report on own and others' work, with justifications. Can accept others' evaluations and act appropriately on them.

STUDY, TRANSFERABLE AND PROFESSIONAL SKILLS BY LEVEL OF STUDY

<u>Skills Grouping</u>	<u>Level 1</u> [Unwitting incompetence]	<u>Level 2</u> [Conscious incompetence]	<u>Level 3</u> [Conscious competence]	<u>Level M</u> [Trained instinctive competence]
REFLECTION & APPRAISAL	Beginning self-reflection on strengths & weaknesses; developing consciousness of own levels of competence and incompetence.	Awareness of the scope of tasks. Beginning to use tools of self-reflection and appraisal of self and others.	Ability to reflect on strengths and weaknesses and to assess own work with acceptable accuracy against published criteria. Ability to make formative self-assessments.	Habitual reflection and appraisal. Evaluation leads to action. Ability to articulate plans to remedy shortfalls. Can accept others' evaluations and act on them.
LEARNING & PROCESS MANAGEMENT	Developing: new approaches to work & study ; group working skills; independent enquiry; ability to justify, reason and argue rationally and persuasively about the study area.	Some support from tutor still needed in management of learning, but responsibility taken for most decisions. Clear understanding of the nature of study and work.	Ability to manage own learning with minimal guidance, both in independent and group study. Ability to justify current and future personal academic and practical goals.	Autonomous. Professional use of others in support of self-directed learning. Instinctive awareness of importance of group processes.
TECHNIQUES AND TOOLS	Developing awareness of the need for a flexible approach to problem-solving, design tasks, evaluation and views of the world. Beginnings of group working skills.	Able to question value of new approaches. Viewpoint can oscillate between enthusiastic adoption of new methods and a pervading emphasis on their drawbacks. Used to group working.	Confident knowledge of appropriate general and technical subject-specific skills. Ability to articulate own viewpoint and use as a basis for questioning, discussion and debate. Clear understanding of group processes.	Confident selection of tools for the job. Ability to develop new approaches in new situations. Quick to perceive merits or demerits of new ideas, techniques or technologies. Confident understanding of group dynamics.
APPLICATION	Recognition of the necessity for study skills appropriate to the subject (library, laboratory, computer literacy, articulate and accurate written and oral presentation). Development of a questioning attitude.	Exploration of an expanding range of skills and techniques. Valuing of study and transferable skills, both in the group and as an individual.	Confident and flexible application of subject-specific skills in evaluation, problem-solving, design and analysis of real-world issues.	Creative use of techniques and skills. Skilful and confident planning and successful execution of programmes of work "on time and within budget". Works effectively as a team member or leader.

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APPENDIX 3

UNIVERSITY OF PORTSMOUTH PARTNERSHIP ASSESSMENT CRITERIA*

Criteria for Essays, Reports and Presentations indicating standards by degree classification

	FOR ESSAYS AND REPORTS	FOR PRESENTATIONS
<p>> 70%</p> <p>1st class</p>	<p>Thorough understanding of key concepts and of distinguishing features and trends within the field of study.</p> <p style="text-align: center;">Overview of the field used as a basis for independent judgement.</p> <p>Addresses question/title responds to both process and content words in the essay/report title.</p> <p>Clear structure (introduction, sections and conclusion) and critical analysis and evaluation.</p> <p>Good flow and clear writing style. Reports may be more summary in style.</p> <p>Relates to wider issues in the field of study.</p>	<p>Thorough explanation of key concepts, features and trends in the field of study.</p> <p>Clearly relates to title and stated aims.</p> <p>Fascinating and stimulates a response and/or the processing of information by the audience.</p> <p>Continuity maintained and clearly heard. Entertaining.</p> <p>Relates to audience and their wider knowledge.</p> <p>Excellent use of presentation techniques (OHPs, oratory, video, handouts, exercises, etc).</p>
<p>Upper Second</p> <p>60-69%</p>	<p>Good understanding of features of the field.</p> <p>Fluent use of concepts.</p> <p>Sound structure and good flow.</p> <p>Addresses question/title.</p> <p>Links to wider issues in the field of study.</p> <p>Evidence of background reading and knowledge</p> <p>Some critical evaluation.</p>	<p>Good explanation of the field of study.</p> <p>Uses concepts rather than defining them.</p> <p>Clear signposts to argument which is understandable.</p> <p>Sticks to the topic.</p> <p>Connects with the audience. Maintains interest.</p> <p>Good use of presentation techniques.</p> <p>Prompts a response.</p>
<p>Lower Second</p> <p>50-59%</p>	<p>Evidence of some understanding of the field.</p> <p>Some use of concepts.</p> <p>Adequate structure.</p> <p>Question OR topic analysed and most material relevant to the question.</p> <p>Some evidence of reading - rather a "surface" approach.</p>	<p>Some explanation of issues in the field.</p> <p>Presents relevant concepts.</p> <p>Structured but bitty or sometimes un-connected.</p> <p>Descriptive without moral, political or analytic purpose.</p> <p>Presentation techniques leave the audience largely passive and techniques unrehearsed.</p>
<p>Third</p> <p>40-49%</p>	<p>Grasp of basics.</p> <p>Descriptive, "surface" approach.</p> <p>Limited understanding of relevance to the wider field.</p> <p><i>Reference</i> to question OR title rather than <i>discussion</i> of it.</p>	<p>Basic description of a part of the field.</p> <p>Little connection with the audience who are "presented at".</p> <p>Mechanistic use of visual aids ... which do not help or further the points being raised.</p>
<p>Fail</p> <p><39%</p>	<p style="text-align: center;">Long on description with little or no analysis Confused or wrong over theory and concepts.</p> <p>Little evidence of reading.</p> <p>Irrelevant and muddled.</p>	<p>Read verbatim.</p> <p>Unclear, inaudible and stumbling.</p>

In making assessments it is often the case that the assessed piece crosses from one grade to another in terms of criteria and final grading must thus balance the relevant factors.

Sixfold Criteria for assessing Work-based Learning indicating standards by degree classification

MARK	CHARACTERISTICS OF ACHIEVEMENT
>70% 1st Class	<p>Thorough understanding and assimilation of key concepts (both practical and theoretical), trends and interactions within the learning outcomes specified in the learning contract;</p> <p>Overview of the field of study used as a basis for creativity, synthesis, innovative thinking, predictive judgement and diagnosis;</p> <p>Awareness of the significance of the field of study within the wider context of work and society, and a demonstrated ability to move across boundaries;</p> <p>Evidence of a thoroughly professional attainment in terms of the coherent presentation of the work;</p> <p>Evidence of a process of continuous evaluation and reflection integrated with technical aspects of the work, together with evidence of critical self-evaluation;</p> <p>Reference to, and thorough assimilation of, latest published material in the field of study;</p>
69-69% Upper second class	<p>Good understanding of key concepts within the learning outcomes specified in the learning contract;</p> <p>Confidence in use of ideas and processes within the field of study;</p> <p>Awareness of the significance of the field of study within the wider context of work and society;</p> <p>Written material fluent and soundly structured;</p> <p>Critical evaluation given some importance;</p> <p>Evidence of use of background knowledge and investigation;</p>
50-59% Lower second class	<p>Evidence of understanding of the distinguishing features of the learning outcomes specified in the learning contract;</p> <p>Use of ideas and processes from the field of study;</p> <p>Adequate structure;</p> <p>Some evaluation of outcomes and procedures;</p> <p>Evidence of investigation of published materials;</p>
40-49% Third class	<p>Basic understanding of learning outcomes specified in learning contract;</p> <p>Evidence of some assimilation of basic concepts in the field of study;</p> <p>Some understanding of significance of matters within the field of study;</p> <p>Material poorly organised and largely descriptive;</p> <p>Limited attempt to evaluate outcomes or procedures;</p> <p>Inadequate investigation of sources;</p>
<39% Fail	<p>Confusion about or misunderstanding of learning outcomes as expressed in the learning contract;</p> <p>Theory wrongly applied to the work in hand with little or no analysis;</p> <p>Little or no evidence of understanding of the significance of the work or assimilation of issues;</p> <p>Long on description, with structure inappropriate to content;</p> <p>No real evaluation of outcomes;</p> <p>Little evidence of investigation, or heavy and unacknowledged reliance on one source.</p>

These criteria are to be used as the starting point in negotiations between student, mentor and tutor to agree the criteria by which work-based learning is assessed.

Criteria may need to be varied according to the nature of the project, the intended learning outcomes and the nature of the evidence that is to be submitted. Criteria may be amended, deleted or added to.

* Source: University of Portsmouth Partnership Programme Office (February 1995)

ANALYSIS OF STUDENT DATA DISCUSSED IN CHAPTER 5

Name	Young/ Mat	STUDENT NO	8/4 WEEK	assess mark	INDEP	META- COGNITION	SELF ACT.	SOCIAL AWARE	AVERAGE	OBSERVATIONS RE AUTONOMY
Ingrid	M	11	8	2.1	3	3	3	3	3.00	developed in autonomy
Gillian	Y	37	8	2.1	3	3	3	3	3.00	developed in autonomy
Brenda	M	2	8	2.2	3	2	3	3	2.75	developed in autonomy
Fiona	Y	7	8	2.1	3	3	2	3	2.75	developed in autonomy
Jane	Y	13	8	2.2	3	3	2	3	2.75	developed in autonomy
Wendy	Y	27	8	2.1	2	3	3	3	2.75	developed in autonomy
Naomi	M	46	8	1	3	2	3	3	2.75	developed in autonomy
Colin	M	12	8	2.1	2	3	2	3	2.50	developed in autonomy
David	M	14	8	2.1	3	3	2	2	2.50	worked mainly from home but WBL still promoted autonomy
Edward	M	15	8	2.2	2	3	3	2	2.50	had much experience of work but WBL still promoted autonomy
Susan	M	24	8	2.1	1	3	3	3	2.50	moved to a higher level of autonomy
Denise	Y	56	4	2.1	3	2	2	3	2.50	developed in autonomy
Clare	M	4	8	2.1	2	2	2	3	2.25	developed in autonomy
Brian	Y	9	8	2.1	3	2	2	2	2.25	developed in autonomy
Lynn	M	18	8	2.1	2	3	2	2	2.25	some development in autonomy
Alan	M	3	8	1	2	2	2	2	2.00	Functioned autonomously but developed characteristics further
Beverley	M	30	8	2.1	2	2	1	3	2.00	developed in autonomy
Debbie	Y	34	8	2.2	1	2	2	3	2.00	developed in autonomy
Jenny	M	41	8	2.1	2	2	2	2	2.00	functioned autonomously but developed characteristics further
Dianne	M	6	8	2.1	2	2	1	2	1.75	developed in autonomy
Gaynor	Y	8	8	2.2	1	2	2	2	1.75	independent going into placement & apparently self confident but developed in autonomy
Nicola	M	20	8	2.1	1	2	2	2	1.75	developed in autonomy
Theresa	M	25	8	2.1	2	2	1	2	1.75	developed in autonomy
Yvonne	Y	28	8	2.1	2	2	2	1	1.75	developed in autonomy
Christine	M	31	8	1	2	3	1	1	1.75	developed in autonomy
Emma	M	35	8	2.1	2	2	2	1	1.75	functioned autonomously but developed characteristics further
Helena	M	38	8	2.1	1	2	2	2	1.75	developed in autonomy
John	M	43	8	1	2	2	1	2	1.75	developed in autonomy
Linda	M	44	8	2.1	2	2	2	1	1.75	developed in autonomy
Sandra	M	50	8	2.1	1	2	3	1	1.75	developed in autonomy
Tanya	Y	51	8	2.2	2	2	2	1	1.75	developed in autonomy

Shaded area indicates students not discussed in Chapters 5 and 6

ANALYSIS OF STUDENT DATA DISCUSSED IN CHAPTER 5

Name	Young/ Mat	STUDENT NO	8/4 WEEK	assess mark	INDEP	META- COGNITION	SELF ACT.	SOCIAL AWARE	AVERAGE	OBSERVATIONS RE AUTONOMY
Barbara	Y	54	4	2.1	1	2	2	2	1.75	some development in autonomy
Alison	M	1	8	2.2	1	2	0	3	1.50	no apparent development in autonomy
Hilary	M	10	8	2.2	2	2	1	1	1.50	some development in autonomy
Mary	Y	19	8	2.2	1	1	2	2	1.50	some development in autonomy
Valerie	M	26	8	2.1	1	2	1	2	1.50	functioned autonomously
Amy	M	29	8	2.1	1	2	2	1	1.50	further development in autonomy
Harry	Y	33	8	2.1	2	2	1	1	1.50	functioned autonomously
Irene	M	39	8	2.1	1	2	2	1	1.50	functioned autonomously
Ian	Y	40	8	2.1	2	1	1	2	1.50	functioned autonomously
Vicky	Y	52	4	1	2	2	1	1	1.50	developed in autonomy
Karen	Y	16	8	2.1	1	1	1	2	1.25	no apparent development in autonomy
Ruth	M	23	8	2.2	1	1	2	1	1.25	no apparent development in autonomy
Kath	M	42	8	2.1	1	1	2	1	1.25	functioned autonomously
Cheryl	Y	55	4	1	1	1	2	1	1.25	developed in autonomy
Eunice	M	57	8	2.1	1	1	2	1	1.25	developed in autonomy
Elaine	M	6	8	3	1	0	1	2	1.00	no apparent development in autonomy
Olivia	Y	21	8	3	0	1	2	1	1.00	no apparent development in autonomy
Penny	Y	22	8	2.2	1	1	1	1	1.00	some development in autonomy
George	M	32	8	2.2	1	1	1	1	1.00	functioned autonomously but benefitted from WBL
Paula	M	47	8	2.2	1	1	1	1	1.00	no apparent development in autonomy
Anne	Y	53	4		1	1	1	1	1.00	no apparent development in autonomy
Frank	Y	17	8	2.2	0	1	1	1	0.75	no reflection: no development in autonomy
Margaret	Y	45	8	2.2	1	1	0	1	0.75	no development in autonomy
Keith	M	48	8	2.2	2	1	0	0	0.75	self-satisfied: no development in autonomy
Rosemary	M	49	8	2.2	0	1	0	1	0.50	no apparent development in autonomy
Faye	M	36	8	2.2	0	1	0	0	0.25	no apparent development in autonomy

Shaded area indicates students not discussed in Chapters 5 and 6

APPENDIX 5

AGE AND GENDER VARIABLES

In order to discuss the evidence for the development of characteristics of autonomy in 57 students (Chapter 5) I found it useful to tabulate the results of my analysis according to a simple scoring system. (Appendix 4). This enabled me to consider a large amount of data in a conveniently concise presentation.

To facilitate the discussion of the evidence, I included in the table details of the age (either 'mature' or 'young') and allocated fictitious names to show the gender of each student. After examining the evidence, and discovering that my earlier ideas were confirmed; namely that work based learning can help to promote the characteristics necessary for autonomy; that a challenge could provide the catalyst for development, and that this challenge could occur in one or more of several elements of the module, it occurred to me to consider whether the students' development could be affected by their age or gender. If these variables proved to be significant they would have to be addressed in my subsequent examination of the ways in which the different elements of the work based learning module contributed to the development of autonomy.

I therefore examined these factors on the basis of my assigned scores, and the conclusions from that examination are given here. Figures are given in percentages in order to facilitate comparison, as my sample included unequal numbers of male and female and mature and young students. For the purposes of this analysis 'mature' students are those who entered college some years after leaving school, and 'young' students are those who entered within two or three years of leaving school. In the scoring system, 2 and 3 are considered as 'high' scores, and 0 or 1 as 'low' scores. Students were allocated low scores if there was little evidence of development in a particular characteristic. This could be accounted for by the fact that the student already possessed that characteristic and therefore had less room for development, in which case the student would have been identified as being able to exercise some degree of autonomy by the end of the placement. Alternatively it could be that s/he did not demonstrate the characteristic to begin with and had not moved far from that initial

position. and therefore could not be said to be functioning autonomously. In this case the students were categorised as 'not autonomous'.

Age differences

Independence

It might be expected that mature students would be more independent at the start of their work based learning than young ones. In fact there was little difference between the mature and the young students who scored low on independence. 48% of young students scored low, and 45% of these were not autonomous, indicating that 26% of all the young students were independent at the outset. Of the mature students, 50% scored low on independence and 35% of these were not autonomous, which suggests that 32% of all mature students came to their work based learning demonstrating some independence. Similarly, among those scoring high on independence, 50% of mature students had developed autonomy, compared with 52% of young students. It appears, therefore, that the age of the student was unrelated to whether they demonstrated independence from the outset or developed it as a result of their work based learning

Metacognition

It might be thought that younger students, familiar with problem solving approaches and accustomed to the reflection and analysis that characterise post 16 education in recent years, would demonstrate a greater facility for metacognitive processes than their older colleagues. In fact, there was no evidence to show that they either performed or developed more effectively in metacognition than the mature students.

74% of mature students showed significant metacognitive development which enhanced their overall level of autonomy. This compares with 61% of the young students who had high scores and were autonomous. Among the low scorers, 9% of mature students and 17% of young ones scored low and were autonomous (suggesting they started their work based learning with well-developed metacognitive skills). As with independence there is a small difference between young and mature students who either possessed or developed metacognitive skills, which accords with expectations, but the difference is insufficient to affect the overall analysis.

Self-actualisation

As with independence, it could be suggested that the characteristics of self-confidence and self-knowledge which underpin self-actualisation ought to be more fully developed the older one becomes, in which case more of the mature students would have low scores but also be judged autonomous. The analysis shows that this was the case, but only by a factor of 7%.

However, the fact that age had no effect on the extent to which the students were able to develop self-actualisation through their work based learning , is demonstrated by the findings from the high scorers, with 61% of young and 56% of mature students scoring high and showing movement towards autonomy.

Social awareness

Overall there was less difference between mature and young students in this area than in the other three. 56% of mature students and 57% of young ones scored 2 or 3, but not all were judged to be autonomous. In fact the difference between mature and young students whose development in autonomy was aided by enhanced social awareness was only 2%.

In the degree to which the students already demonstrated social awareness at the start of their work based learning , evidenced by low scores and overall autonomous development, there was again little difference: 29% of mature students and 26% of young students were judged to be in this category.

This analysis offers no support for the suggestion that the age of the student would make a difference to the degree to which they demonstrated or developed the characteristics of autonomy during their work-based learning. No significant age-related differences emerged to affect the extent to which work based learning was, or was not effective in promoting autonomy in any particular individual.

Gender differences

When considering the evidence of gender related differences it is necessary to remember that the 57 students in this sample included only 11 males. That proportion was, however, representative of the entire 1995 cohort, and therefore in the terms of this study, any differences which emerge must be considered as significant, and be taken into account in its conclusions.

Independence

Gender stereotyping would lead one to expect that males would be more independent than females, and there would therefore be proportionately more low scoring males who demonstrated overall development in autonomy. In fact only 9% of males came into this category, compared with 33% of females.

Among the high scorers, 36% more males than females were judged to have developed their independence. This could suggest that males were more able to take advantage of opportunities for independence offered by their placement than their female colleagues.

Metacognition

Development of this characteristic is probably less affected by the mores of socialisation than any of the other three, and therefore might be expected to be gender-neutral. Analysis of the students' scores in this area supports this, with 64% of males and 67% of females scoring high, being judged to have developed overall in autonomy.

Self-actualisation

As with independence, gender stereotyping might suggest that qualities such as self-confidence and self-esteem should be more evident in males than females, and therefore the males in this study would be expected to score low and be judged autonomous, whereas females would either score low and not develop autonomy, or score highly to show that they had made progress in self-actualisation.

In fact, among the low scorers, 66% of low scoring males developed in autonomy compared to only 47% of the low scoring females, which offers some support to the

expectation that more males than females would start their placement with the qualities of self-actualisation. The suggestion that females would have more room than males for development in this area is also supported by the high scorers who developed in autonomy, with 63% of females but only 45% males showing significant progress.

Social awareness

If the stereotypical male is considered to be more independent and more self-actualised than his female counterpart, he may also be expected to be more socially experienced and therefore more socially aware. However, the males in this study began their work based learning with less social awareness than the females, but more of them developed it during the placement.

64% of the males and 50% of females scored highly in self-awareness, and were judged autonomous, indicating that they had developed in this area. Among the low scorers, 28% of females and 18% males scored low and were judged autonomous, suggesting that their sense of social awareness and social responsibility was already effective at the start of the work based learning module. However, taken together, the figures suggest that there is little gender difference between those who have social awareness, and those who did or did not develop it as a result of their work based learning.

The conclusion from this analysis of the effect of age and gender variables on the development of the four characteristics of autonomy, must be that they have very little influence, and therefore placements and learning agreements should be matched to individuals without any prior assumptions being made about the age or gender of the student.

ANALYSIS OF STUDENT DATA DISCUSSED IN CHAPTER 6

			NATURE OF CHALLENGE								WORK BASED LEARNING FACTORS WHICH INFLUENCED DEVELOPMENT IN THE CHARACTERISTICS OF AUTONOMY					
Name	STUDENT NO	Devt. in necessary characteristics	Having to create own project (I)	Unrealistic Learning Agreement (I)	Uncongenial Placement (S/E)	Having to reassess self (E)	Unforeseen Circumstances (S)	Personal Challenge (E)	Having a Real Job (I)	Support Programme	Learning Agreement	Employer/tutor/ staff support	Real Job	Assessment	Prior Experience	Portfolio
Janet	Pilot								X		X	X			X	X
Moira	Pilot								X	X	X	X			X	X
Ingrid	11	3	X						X	X		X			X	X
Gillian	37	3	X				X					X			X	X
Brenda	2	2.75		X						X		X	X		X	X
Fiona	7	2.75	X	X		X				X					X	X
Jane	13	2.75		X						X					X	X
Wendy	27	2.75							X	X	X	X			X	X
Naomi	46	2.75						X			X				X	X
Colin	12	2.5							X			X			X	X
David	14	2.5			X	X					X	X	X		X	X
Edward	15	2.5				X			X	X					X	X
Susan	24	2.5				X		X		X		X	X		X	X
Denise	56	2.5		X								X			X	X
Clare	4	2.25			X	X				X		X	X		X	X
Brian	9	2.25				X		X					X		X	X
Lynn	18	2.25	X	X									X	X	X	X
Alan	3	2				X						X	X		X	X
Beverley	30	2					X			X	X	X		X	X	X
Debbie	34	2	X							X					X	X
Jenny	41	2						X			X	X			X	X
Dianne	5	1.75	X	X						X		X			X	X
Gaynor	8	1.75	X	X		X				X			X		X	X
Nicola	20	1.75				X		X	X	X		X			X	X
Theresa	25	1.75	X			X	X			X			X		X	X
Yvonne	28	1.75	X			X		X		X			X		X	X
Christine	31	1.75		X						X		X	X		X	X
Emma	35	1.75							X		X	X			X	X
Helena	38	1.75				X			X	X					X	X
John	43	1.75				X	X					X			X	X

Shaded area indicates students not discussed in Chapter 6.

ANALYSIS OF STUDENT DATA DISCUSSED IN CHAPTER 6

			NATURE OF CHALLENGE							WORK BASED LEARNING FACTORS WHICH INFLUENCED DEVELOPMENT IN THE CHARACTERISTICS OF AUTONOMY						
Name	STUDENT NO	Devpt. in necessary characteristic \$	Having to create own project (I)	Unrealistic Learning Agreement (I)	Uncongenial Placement (S/E)	Having to reassess self (E)	Unforeseen Circumstances (\$)	Personal Challenge (E)	Having a Real Job (I)	Support Programme	Learning Agreement	Employer/tutor/ staff support	Real Job	Assessment	Prior Experience	Portfolio
Linda	44	1.75	X							X					X	X
Sandra	50	1.75				X				X		X			X	X
Tanya	61	1.75							X	X	X		X		X	X
Barbara	54	1.75		X	X										X	X
Alison	1	1.5									X				X	
Hilary	10	1.5	X			X				X			X	X		X
Mary	19	1.5	X	X	X								X		X	X
Valerie	26	1.5			X	X				X			X		X	X
Amy	29	1.5							X	X	X				X	X
Harry	33	1.5							X	X	X		X		X	X
Irene	39	1.5				X	X				X				X	X
Ian	40	1.5									X	X			X	X
Vicky	52	1.5			X								X		X	X
Karen	16	1.25								X	X	X				
Ruth	23	1.25									X		X			
Kath	42	1.25			X	X				X			X		X	X
Cheryl	55	1.25		X	X						X		X		X	X
Eunice	57	1.25	X			X			X			X			X	X
Elaine	6	1									X					
Olivia	21	1		X	X		X					X				
Penny	22	1		X											X	
George	32	1									X				X	X
Paula	47	1													X	
Anne	53	1		X							X				X	
Frank	17	0.75		X											X	
Margaret	45	0.75										X			X	
Keith	48	0.75														
Rosemary	49	0.5								X					X	
Faye	36	0.25		X						X		X				

Shaded area indicates students not discussed in Chapter 6.

ABBREVIATIONS USED IN THE TEXT

AP(E)L	Accreditation of Prior (Experiential) Learning
ASSET	Accreditation of Social Service Experience and Training
BTEC	Business and Technical Education Council
CAEL	Council for Adult and Experiential Learning
CAT	College of Advanced Technology
CNAA	Council for National Academic Awards
CPSM	Council for Professional Supplementary Medicine
CVCP	Committee of Vice-Chancellors and Principals
DES	Department of Education and Science
DoE	Department of Employment
DSIR	Department of Scientific and Industrial Research
EMI	Electric and Musical Industries Ltd.
EWBL	Extended Work Based Learning
FDL	Federal Department of Labour
GEC	General Electric Company
G/NVQ	General/National Vocational Qualification
HEFC	Higher Education Funding Council
HEQC	Higher Education Quality Council
HNC	Higher National Certificate
HND	Higher National Diploma
ICI	Imperial Chemical Industries
LET	Learning from Experience Trust
LISC	Learning in Small Companies
LJMU	Liverpool John Moores University
MEC	Making Experience Count
MLSO	Medical Laboratory Science Officer
NATED	National Association for Tertiary Education for Deaf People
NCIHE	National Committee of Inquiry into Higher Education
NRA	National Record of Achievement
NVQ	National Vocational Qualification
OCEL	Off Campus Experiential Learning

PGCE	Postgraduate Certificate in Education
PTS	Personal Transferable Skills
QSC	Quality Standards Council
RAF	Royal Air Force
RGN	Registered General Nurse
RISE	Research into Sandwich Education
STEP	Shell Technology Enterprise Programme
TEC	Training and Enterprise Council
UNESCO	United Nations Educational Scientific and Cultural Organization
W B L	Work Based Learning
WBLFAC	Work Based Learning for Academic Credit
YTS	Youth Training Scheme

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