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# The Experiences of Employers of Work Placement: A Quantity Surveying Perspective

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# *The Experiences of Employers of Work Placement:*

# *A Quantity Surveying Perspective*

A thesis submitted to the Dublin Institute of Technology in part fulfilment of the requirements for award on Masters (M.A.) in Third Level Learning and Teaching

By

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**June 2010**

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# Declaration

I hereby certify that the material which is submitted in this thesis towards the award of the Masters (M.A.) in Third Level Learning and Teaching is entirely my own work and has not been submitted for any academic assessment other than part-fulfilment of the above named award

*Signature of candidate*:…………………………………………………………………..

*Date*:…………………………………………………………………………………...

# ABSTRACT

This phenomenological study examines the employers' experiences of student work placement in quantity surveying practices. The principal aim of the research is to provide a composite comprehensive description of the work placement educational approach as experienced by of quantity surveying employers by presenting the issues, benefits and drawbacks associated with the approach.

The research design is interpretivist and qualitative in nature. The data was gathered through a series of one pilot and four phenomenological interviews with senior representatives of the quantity surveying profession. The primary concern was to gather rich and deep data which would allow a credible account of the approach to be composed from the employers' perspective. The design recognises the limitations of the research and acknowledges that the findings are not exhaustive.

The research has established the following main findings:

The participants reported highly positive experiences of employing work placement students and that the approach works well in practice. It emerged, however, that smaller practices experienced some difficulties in securing placement students and that the larger quantity surveying practices and construction companies were better placed to recruit placement students. The participants expected the placement student to be capable of carrying out basic measurement tasks under supervision within a team structure to support the production of a range of tender and cost planning documents. The participants commented favourably about the students' ability to perform these tasks.

The participants reported that the College, in general, maintained a background presence and allowed the participants a high degree of autonomy in managing the students' experience. The participants considered their function was to provide the students with good experience and encouraged the students to apply for membership of the professional institutions. They maintained a high degree of control and supervision over the students and were aware of their status as learners.

The participants felt that the work placement approach provided valuable opportunities to recruit short term staff and vet them as potential full-time employees. They reported few problems which would not be encountered in employing young staff in any case. In general they consider work placement graduates to be more employable than their full time equivalents.

The principle conclusion is that there is a strong argument for adopting and implementing a work placement approach in quantity surveying education courses.

## Acknowledgements

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# CHAPTER ONE

# INTRODUCTION AND BACKGROUND

## Introduction

The education of quantity surveyors in Ireland is predominantly provided for by the Institutes of Technology in conjunction with The Society of Chartered Surveyors (SCS), the professional institution representing Irish quantity surveyors. The typical route to election as a Chartered Quantity Surveyor involves candidates gaining an approved SCS accredited honours degree (NQAI level 8). Following qualification, the candidate commences a prescribed minimum period of 24 months structured, supervised training and work experience prior to undertaking an Assessment of Professional Competence (APC). Candidates may enrol for the APC during the *final* year of a part-time, or during a placement year, of an accredited programme. At least 12 of the 24 months structured training must be completed after graduation (Society of Chartered Surveyors 2006). Students on a work placement programme, therefore, may obtain up to 12 months of their structured training while at college. Consequently, this option is less expensive and also provides probationers with the possibility of achieving chartered designation one year earlier than a full-time educated counterpart.

The growth of the Irish Construction Industry between the late 1990s and 2006 led to an unprecedented demand for quantity surveying services. The quantity surveying profession and the third level education institutions struggled to supply sufficient suitably qualified entrants to satisfy this demand. Prior to 2007, the only SCS accredited courses were at Dublin Institute of Technology (DIT) and Limerick Institute of Technology who, between them, produced approximately 130 graduates per annum. Graduates from quantity surveying related ordinary degree or higher diploma courses from Cork, Waterford, Carlow, Sligo and Letterkenny Institutes of Technology seeking to become Chartered Quantity Surveyors in Ireland, had, in effect, to complete their studies at either DIT or Limerick IT. DIT offers a four year full-time and a six year part-time programme;

while Limerick provides a four year full-time sandwich course. The term 'sandwich course' refers to '*a course in which periods of study in an educational institution alternate with periods of practical experience in an appropriate work situation in industry, commerce or a profession* (Higher Education Authority 2004).' The Limerick IT placement occurs in the third year of the programme.

The shortage of quantity surveyors prompted a significant expansion in the capacity of the Institutes of Technology to deliver QS graduates at honours degree level. This was achieved by upgrading existing ordinary degree programmes to honours level or by providing add-on honours degree courses. Waterford Institute of Technology has now obtained accreditation from the SCS for its Honours Degree in Quantity Surveying courses. Cork, Sligo and Carlow Institutes now also offer honours degree courses in quantity surveying although these courses are not accredited by the SCS. In addition ordinary degree courses in quantity surveying are now provided by Galway-Mayo, Tralee and Letterkenny Institutes of Technology. Finally, DIT commenced a five semester part-time non cognate conversion MSc degree in Quantity Surveying in January 2008, which received SCS accreditation in November 2008. These additional courses have significantly expanded the capacity of the higher education sector to produce quantity surveyors at honours graduate level.

DIT and Sligo IT provide their quantity surveying courses on a four year full time basis. Limerick, Cork and Waterford and Carlow offer their course on a four year 'sandwich' basis. These placements are paid and are typically in a quantity surveying consultancy or a construction company. DIT remains the only institution in Ireland offering an accredited SCS qualification on a part-time basis.

The study is being undertaken against a background of a severe reduction in activity within the Construction Industry. Previously, graduates encountered few problems in securing suitable well paid employment. In addition, many undergraduates were employed part-time, frequently in junior qs positions. The need to provide work experience within full time curricula may therefore not have been viewed as a pressing issue. The current difficulties in the Construction Industry has resulted in employment

opportunities becoming very scarce and it is widely acknowledged that employers prefer students with previous work experience over those lacking appropriate work experience (Bennett, Eagle, Mousley and Ali-Choudhury 2008). This is a matter of extreme importance to students, regardless of the obvious attraction of earning while learning, when considering their options for third level education.

The expansion in the capacity to supply quantity surveying graduates has led to much greater choice for prospective students and competition for entrants amongst the Institutes of Technology. The challenge for the 'established' institutions is to maintain student numbers in the face of growing competition. They must now critically evaluate the effectiveness of their programmes in a rapidly changing economic and educational environment. Institutions can no longer afford a take-it-or-leave-it approach based on past practice, when obtaining work experience was, perhaps, seen as less effective than providing a longer period of study in preparation for work.

This research is being conducted, primarily, to inform members of the Programme Committee for the Construction Economics and Management Degree (CEMD) in DIT whether work placement might improve the programme curriculum. Work placement has been identified by external examiners and members of the Programme Committee as a possible option which might benefit the course. To date, however, the Committee's discussions about the merits of work placement has been of a general and anecdotal nature, based largely on individuals' perceptions of the value of the approach rather than a debate informed by published research.

According to Crebert, Bates, Bell, Patrick and Cragnolini (2004) most research related to work placement has focussed on three main aspects: the educational value of the placement; the impact of placement on subsequent student employability and the perceptions of the students about placement. This thesis sets out to examine placement from the perspective of the third central stakeholder in the process; the employer.

The central question is what are the experiences of employers of a sandwich year work placement? According to Crebert et al. (2004) and Little and Harvey (2006) the most extensive recent research into placements was the *Graduates Work* survey carried in the

UK by Harvey and colleagues in 1997. They interviewed 258 managers, graduates and undergraduate employees in 91 organisations and found that '*respondents overwhelmingly endorsed work-based placements as a means of helping students develop attributes that would help them to be successful at work.*' (Harvey et al. quoted in Crebert et al. 2004 p. 149). This study was carried out over ten years ago across a range of disciplines abroad. In the context of Irish quantity surveying there are, however, no direct studies of work placement and it is considered important to obtain these views. Ultimately, well informed decisions will determine whether the DIT maintains its position at the forefront of quantity surveying education in Ireland. It considered, therefore, both relevant and timely to conduct this research to address this gap in the knowledge.

## Research Questions, Aims and Objectives

The purpose of this study is to explore the experiences of employers of work placement generally and year out sandwich courses in particular in the context of educating quantity surveyors. The following objectives have been identified to resolve this question:

- To summarise the issues, benefits, controversies and problems related to work placement and work based learning.

- To outline various approaches to work placement.

- To discover employers experiences of work placement. This core objective seeks to explore.

    - expectations employers have of work placement students

    - the range duties assigned to these students

    - the value of the students activities

    - the relationships between staff and the students

    - the relationship with the academic supervisor and college.

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o the learning the student gains from work placement.

- To discover whether employers believe that there are identifiable differences between graduates who have experienced work placement and graduates who have not experienced work placement.

The primary data for the study has been gathered from four consultant quantity surveyors and one contractor's quantity surveyor in Ireland.

## Structure

This thesis comprises seven chapters:

Chapter Two outlines the constructionist epistemological underpinning and justifies the interpretivist theoretical perspective adopted to undertake this research

Chapter Three presents a review of the literature dealing with work placement in third level education. The review outlines the literature search process, discusses various learning theories underpinning work placement and describes various models of work placement used in third level courses. It examines the advantages, disadvantages and key issues related to work placement. Particular attention is paid to the employer's perspective of work placement approaches.

Chapter Four explains the design adopted to conduct the research: a phenomenological methodology has been chosen which uses semi-structured interviews to explore employers' experiences of work placement. It explains how the data collection process was planned, implemented and analysed and explains the measures taken to ensure valid, reliable and credible findings.

Chapter Five presents the findings of a series of five semi-structured interviews with senior mangers in quantity surveying and construction firms to discover their experience of employing work placement and full time graduate students. The interview data is converted into information by extracting key statements made by the participants and identifying patterns, trends and common themes among the participants' responses.

Chapter Six presents a discussion of the analysis and a synthesis and interpretation of the findings. It examines key issues and themes regarding work placement raised by the participants and explores their experiences of the approach. It addresses whether the research findings accord or conflict with the literature. It also discusses the implications of the findings for teaching practice.

Chapter Seven in conclusion brings together the work done and what has been found. It evaluates the methodology and data collection tools used, and describes the research's contribution to the literature. It reflects on the degree to which the aims and objectives were achieved. It discusses the implications and recommendations for practice arising from the research and comments on the cost/benefit of these. It concludes by presenting ideas for further research.

# CHAPTER TWO

# THEORETICAL PERSPECTIVE

## Introduction

This chapter sets out the theoretical perspective from which this research has been conducted. The research design process is founded on the researcher's philosophical assumptions which reflects a worldview and informs and shapes the conduct of the research (Creswell 2007). Cohen, Mannion and Morrison (2000) add that '*ontological assumptions give rise to epistemological assumptions; these, in turn, give rise to methodological considerations and these, in turn, give rise to issues of instrumentation and data collection* (p. 4).' Creswell (2007) argues that good research requires that these assumptions are made explicit in order to reveal the influence they exert on the research design process. Crotty (1998) proposes a four-stage model to organise the various elements and assumptions within the research strategy: the epistemology which underpins the research, the theoretical perspective adopted by the researcher, the methodology to carry out the research, and the methods to gather the information. The approach adopted, based on Crotty's model is illustrated in Figure 1.
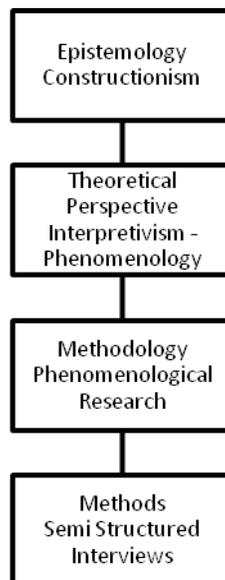


Figure 1 The Research Design: (Adapted from Crotty 1998)

# Epistemology

Epistemology refers to '*the theory of knowledge embedded in the theoretical perspective and thereby in the methodology*' (Crotty 1998 p. 3). He describes it as a way of understanding and explaining how we know what we know. A central concern is whether knowledge is real or personal. Epistemology concerns what constitutes knowledge; what it possible to know, understand and represent (Bartlett, Butler and Peim 2001). They explain that the researcher's epistemological philosophy identifies his or her stance on the authority or '*provenance*' of knowledge claims and: '*Sooner or later questions about knowledge touch on questions society, about ethics, and about institutions and how they work* (p. 21).' They extend this argument to include questions related to curricula in educational institutions.

Crotty (1998) identifies three principal epistemological stances; objectivism, constructionism and subjectivism.

## *Objectivism*

Objectivism holds that there is a real world 'out there' (Cohen et al. 2000), independent of the individual's consciousness. Objectivism views knowledge as hard, objective (value free) and tangible: facts capable of being transmitted await discovery by (scientific) research. Researchers holding these assumptions tend towards positivist research approaches in order to discover relationships between events and typically employ quantitative practices (Robson 2002). The chief criticism of this stance is that natural science methods fail to explain social behaviour. According to Robson (2003), the '*constant conjunctions*' of cause and effect events are virtually non existent in the real world where individuals do not act under controlled conditions. This has led some to consider that the scientific approach is '*inappropriate for social research*' (p. 20).

## *Constructionism*

Constructionism holds that meaning emerges '*in and out of our engagement with the realities in our world. There is no meaning without a mind* (Crotty 1998 p. 8).' Meaning is constructed rather than discovered and individuals may construct different meanings about the same phenomenon. This epistemology views meaning as being negotiated.

Researchers operating with these assumptions tend to adopt relativistic or interpretivist approaches. According to Robson (2002) these approaches respect different worldviews and theoretical frameworks. He notes that the participants cannot be separated from research. There is also an emphasis on the individual perspective and the impact of language. The aim is to present complex meanings of experience and social behaviour within its context. This process may generate working hypotheses and allow theory and concepts to emerge from the data. Creswell (2003; 2007) refers to this philosophy as '*constructivist'*. Crotty (1998), however, distinguishes these two terms. He views constructionism as espousing socially constructed meaning, whereas he considers constructivism is '*primarily an individualistic understanding of the constructionist position*' (p. 58).

## *Subjectivism*

Subjectivism contends that meaning is imposed on the object by the subject rather than deriving from experience between subject and the object (Crotty 1998). Subjectivism, in its extreme form, holds that there is no '*external reality independent of human consciousness . . . only different set of meanings . . . which people attach to the world* (Robson 2002 p. 22).' This epistemology holds that knowledge and meaning are the products of individual consciousness created in the individual's own mind (Cohen et al. 2000). The meaning of the object may derive, for example, from dreams, stereotypes, astrology or religious beliefs. '*That is to say, meaning comes from anything but an interaction between the subject and the object to which it is ascribed* (Crotty 1998 p. 9).' Subjectivist thought, particularly in its more extreme forms, has been criticised for according human thought unrealistic powers, and being lacking in common sense (Robson 2002).

This study seeks to construct a composite description of a complex lived experience (van Manen 1997). As such it makes claims to knowledge which are derived from a constructionist epistemology. This epistemological stance is consistent with, and indicates an interpretivist perspective.

## Theoretical Perspective

According to Crotty (1998) the researcher's theoretical perspective is the '*philosophical stance informing the methodology and thus providing a context for the process and grounding its logic and criteria*' (p. 3): this derives from his or her epistemological beliefs. Creswell (2007) observes that all researchers bring value assumptions to their research which explain their position and why a particular methodology may have been chosen.

Creswell (2003; 2007) notes that the range of theoretical perspectives continues to expand. Crotty (1998), for example, presents a non-exhaustive list of five perspectives; positivism (post-positivism), interpretivism, critical inquiry, feminism and postmodernism. Opie (2004), however, has categorised these positions more simply, as either positivist or anti-positivist, the latter including the various strands of interpretivism.

### *Post-positivism*

Post-positivism reflects an objectivist epistemology. The successor of positivism, it recognises that social reality can never be fully explained. It retains the claim, however, that science provides the clearest ideal of knowledge (Cohen et al. 2000). Creswell (2007) describes this approach as being '*reductionistic, logical with an emphasis on empirical data collection, cause and effect oriented, and deterministic based on a priori theories.*' He suggests that researchers adopting this stance will take '*a series of logically related steps, believe in multiple perspectives from participants rather than a single reality, and espouse rigorous methods of qualitative data collection and analysis* (p. 20).' Objectivity remains the ideal and validity and reliability of the findings are central concerns (Crotty 1998). The process typically adopts a quantitative research approach which '*advances a theory, collects data to test it, and reflects on whether the theory was confirmed or unconfirmed by the results* (Naoum 1998 p. 39).' This is commonly achieved through statistical analysis. In this process quantitative research establishes hard facts about a question, attribute or relationship between facts.

*Interpretivism*

Interpretivism is concerned with how the social world is interpreted, understood, and experienced (Creswell 2003). Interpretivist perspectives view behaviour as intentional *'behaviour with meaning'* which is future-oriented or pro-active (Cohen et al. 2000 p. 23). Creswell (2007) claims that, according to this view, theory emerges from, and is built upon experience. Bartlett et al. (2001) argue that researchers adopting an interpretivist perspective set out to explain why individuals act as they do in social situations. Interpretivist perspectives typically adopt qualitative research strategies in which meaning is constructed and negotiated with the participants. Researchers look for complexity of views and rely on the participants' views to make sense of the experience being explored.

Interpretivism has a number of branches. Classification of these branches is contested, however, as individual commentators use different terminology to describe the various paradigms within interpretivism. Crotty (1998) identifies three sub-categories of the interpretivist perspective: phenomenology, symbolic interactionism and hermeneutics. Cohen et al. (2000) refer to ethnomethodology. Creswell (2003; 2007), on the other hand, identifies four paradigms within the interpretivist research continuum: postpositivism, social constructivism (both referred to above), advocacy/participatory and pragmatism.

Phenomenology advocates *'the study of direct experience taken at face value'* (Robson 2002 p. 550). Symbolic interactionism holds that individuals interact within a culture of symbols, such as language and shared gestures: a process which generates meaning through interacting with society Merriam (2002). Hermeneutics is concerned with the interpretation of text and textual material which has expanded to include the analysis of non-textual material such as clothing and group interaction (Robson 2002). Ethnomethodology is concerned with the world of everyday life and seeks to understand the social world from within (Cohen et al. 2000). These four perspectives overlap and have a common objective of finding the *'meaning a phenomenon has for those involved'* (Merriam 2002 p. 37).

*Critical inquiry*

Crotty (1998) argues that the critical perspective seeks to go beyond positivist and interpretivist findings to challenge the status quo and bring about change. Fay, (quoted in Creswell 2003 p. 10), describes these concerns as '*empowering human beings to transcend the constraints placed on them by race, class, creed and gender.*' Creswell (2007) calls this perspective advocacy/participatory, and argues that an action agenda is a basic tenet of this stance. This perspective informs much research into problems affecting marginalised groups, in which researchers aim to provide a voice for and empower the groups.

*Pragmatism*

Pragmatism claims that knowledge '*arises out of actions, situations, and consequences rather than antecedent conditions (as in post-positivism)*' (Creswell 2003 p. 11). The problem is the focus of the research, which is concerned with establishing what works. Research carried out adopting this approach may mix qualitative and quantitative research methods and use a number of data gathering techniques within a single study to better understand the problem (Creswell 2003). Robson (2002) refers to this as '*flexible design*' (p. 5).

*Postmodern Research*

Postmodern research may be regarded as being located at the opposite extreme of the interpretivist continuum to post positivism. Merriam (2002) observes that postmodern research deviates significantly from the other forms of interpretive research. Postmodernism rejects the positivist perspective that progress is inevitable and contends that social life changes rather than improves. Blaxter, Hughes and Tight (2001) comment that advocates of postmodernism claim that the era of grand theories such as positivism is passed and a more limited individualistic approach is appropriate. Merriam (2002) characterises this perspective as contesting and deconstructing previous views of valid knowledge. She describes it as being pluralistic, celebrating and representing multiple viewpoints, '*experimental, playful and creative*' (2002 p. 375); Robson (2002) describes it as '*irreverent*'.

This study sets out to explore experiences: it seeks to gather rich and deep information from a limited number of participants rather than facts and figures from a broad population and therefore adopts an interpretivist perspective. While the findings of the research may well suggest a sound rationale for change; it is not intended, primarily, to pursue an action agenda. The researcher, therefore, does not adopt a critical stance. Likewise, the research question is not constructed as a problem to be solved using multiple data collection methods as it is considered that in-depth interviews, in themselves, are both appropriate and sufficient to explore the work placement experience. The research therefore adopts an interpretivist and the above filtering process suggests a phenomenological research methodology.

### *Phenomenology*

Phenomenology aims to discover the essence of a shared experience by describing and interpreting the participants' perspectives of the experience to arrive at a composite explication of what the phenomenon means. Examples of subjects of phenomenological research includes perceptions of AIDS sufferers towards their condition (Creswell 2007), the experience of being a parent and a teacher (van Manen 1997) and constituents of what it means to be really understood and left out (Moustakas 1994). Phenomenology has been described by Merriam as a philosophy which '*underpins all qualitative research*' (2002 p. 7).

According to Moustakas (1994), the word phenomenon derives from the Greek *phaenesthai* translated as to flare up, to show itself, to appear. He describes the phenomenology as a process seeking '*to bring to light, to place in brightness, to show itself in itself, the totality of what lies before us in the light of day*' (p. 26). Moustakas states that the term phenomenology has been used in philosophy since 1765. Hegel defined the term as '*knowledge as it appears to consciousness, the science of describing what one perceives, senses, and knows in one's immediate awareness and experience* (Moustakas 1994 p. 24).' Key theorists who have developed phenomenological thinking include Husserl, Heidegger, Merleau-Ponty, Sartre and Schutz.

Two major approaches to phenomenology have developed from Husserl's philosophy. Transcendental phenomenology adopts an empirical stance and is currently expounded by Moustakas. This form of phenomenology is '*called transcendental because it moves beyond the everyday to the pure ego in which everything is perceived freshly, as if for the first time. It is called 'phenomenological' because it transforms the world into mere phenomena* (1994 p. 34).' Hermeneutic phenomenology is currently expounded by van Manen who presents an approach which he describes as phenomenologic, hermeneutic and semiotic '*Phenomenology describes how one orients to lived experience, hermeneutics describes how one interprets the "texts" of life, and semiotics is used here to develop a practical writing or linguistic approach to the method of phenomenology and hermeneutics* (1997 p. 4).' This approach stresses the importance of writing. The two approaches have much in common and may be regarded as complementary. Both approaches tend to focus on the description of the essence of experience and the study of the lived experience of persons. As van Manen puts it:

> 'What is this or that kind of experience like . . . it attempts to gain insightful descriptions of the way we experience the world pre-reflectively, without taxonomising, classifying, or abstracting it. So phenomenology does not offer us the possibility of effective theory with which we can now explain and/or control the world, but rather it offers us the possibility of plausible insights that bring us in more direct contact with the world (1997 p. 9).'

This thesis seeks to explore attitudes towards a phenomenon: the experience of undergraduate student work placement amongst a group of employers. This involves gathering information and constructing meanings related to the effectiveness of an educational approach and presenting a judgement, primarily derived by engaging with other people's experiences. This judgement is not 'hard' in the objectivist sense but is constructed through the interpretation of phenomena. It is considered that phenomenological research is the most appropriate methodology to pursue this aim.

# CHAPTER THREE

# THE LITERATURE REVIEW

## Introduction

The purpose of this chapter is to carry out an evaluation, analysis and synthesis of the existing literature relating to work placement. The review defines what work placement is and describes typical models of work placement operated in third level education in Ireland and the UK. It explores various learning theories underpinning the work placement and examines the benefits, disadvantages and key issues related to the approach. Particular attention is paid to the employer's perspective of work placement approaches.

The literature search involved identifying key texts and current journal articles related to both the methodology involved in carrying out phenomenological research and the topic of work placement. A key word search of the DIT library catalogue and webOPAC using the various stems of the terms work placement, sandwich course, cooperative education, internship and work based learning identified key bibliographical references and allowed databases including the British Education Index, the Australian Education Index, ERIC and Education-Line to be searched in a focussed manner. Relevant articles were copied or downloaded; a number of articles were obtained through inter-library loan.

## Background

The concept of what it means to be a third level student continues to evolve. The traditional view of higher education as occurring exclusively in formal, accredited, academic institutions is coming under increasing critical scrutiny. Contemporary commentators have voiced concerns with the predominance of formal 'book' based traditional education approaches. Hager (2000) challenges the effectiveness of the traditional emphasis on internal contemplative learning which he describes as the '*standard paradigm of learning*'. He suggests that these approaches have been accepted uncritically as the most valuable kind of learning and that traditional educational approaches view non propositional learning such as real-world learning through

experience as being somewhat inferior. He argues that learning is evidenced by the exercise of judgement and occurs in contexts bound up with successful action and that theory cannot be separated from practice in the real world. Rainbird, Fuller and Munro (2004) express this critique forcefully in their remark that '*There is a widely held belief that formal or qualification-focused learning is ritualistic, rote and virtually meaningless while work-based learning is real, relevant and meaningful* (p. 7).'

Hager (2000) argues that a period of training is necessary to acquire judgement and become a practitioner. He advocates an emerging paradigm of learning which underpins the trend towards work placement as an effective learning strategy and which recognises that learning occurs outside academia in informal settings such as the home, the workplace and the internet café. This paradigm accepts that individuals learn, not only from teachers, but also from family, friends, colleagues and media.

Boud and Solomon (2001) argue that the increasing use of work based learning approaches represent a '*radical*' shift in pedagogy: empowering the learner rather than the academic to determine what is to be learned. They contend that the recognition of the work place as a site of learning and the validation of working knowledge acquired in the workplace raises fundamental questions relating to academic standards, practices and identity. These represent an '*unprecedented*' challenge to the position of academia as the principle custodian of 'legitimate' knowledge. Harrison, Reeve, Hanson and Clarke agree and add that the emerging paradigm presents a '*serious challenge to many established ideas of how, why, where and with whom learning might occur* (2002 p. 1).'

External pressures are also operating to bring about change within higher education. Coughlan (2004) argues for an educational system focussed primarily on individual needs, but also catering for the needs of the workplace and the wider society. He notes the increasing influence of vocationalism and the rising emphasis of education for capability and enterprise. Auburn (2007) identifies that enhancing employability has become a central aim of many undergraduate programmes in the aftermath of influential government reports such as the Dearing Report (National Committee of Inquiry into Higher Education 1997) which recommended that:

'All institutions should, over the medium term, identify opportunities to increase the extent to which programmes help students to become familiar with work and help them to reflect on their experiences for exposure to and experience of work place.' (Recommendation 18).

Similarly, Little and ESECT Colleagues (2006) report the UK Secretary of State for Education and Employment's call for third level students to have a minimum period of work experience. The assumption underpinning these calls is that students gain from work experience.

Designing a curriculum to meet these needs is a complex task requiring careful consideration of what students should learn and how this learning can best take place. Effective course design requires identification of appropriate, clear objectives and learning outcomes supported by effective learning strategies which are structured, organised and aligned in a consistent manner to ensure the learning outcomes are achieved and are verified by appropriate assessment techniques (Toohey 1999; Biggs 2002).

Toohey (1999) claims that the curriculum design identifies their designer's philosophical stance and as a consequence '*the way in which concepts facts and skills are organized in a course is usually closely related to the beliefs about knowledge and learning.*' (p. 92). She identifies a range of common philosophical approaches to curriculum design which include: traditional or discipline based approaches; cognitive approaches; socially critical approaches, performance based approaches and personal relevance/experiential approaches. She acknowledges that while a certain structure may predominate, it is rare for a course to be structured around a single approach and there are many examples of 'hybrid' approaches.

Course designers favouring work based learning approaches, may therefore, be said to typically adopt a performance and/or personal relevance stance in relation to programme delivery. Toohey (1999) characterises the competence or system based approach as stressing competence attainment and that knowledge should be purposefully applied to produce skilled performers. She describes the personal relevance/experiential approach as being centred on individual students' needs and interests in which learning is organized

around life experiences to deliver improved behaviour. This approach favours project, inquiry or problem based structure which integrates theoretical knowledge with practical application.

## Learning at Work – Theoretical Underpinning.

According to Cunningham, Dawes and Bennett (2004), learning is part of being human, linked to life, and necessary for survival. In the context of workplace learning, they demonstrate that, while the learning may not be optimised, learning is inevitable and they conclude that '*people learn all the time at work*' (p. 16).

The idea of the workplace being an effective site of learning is underpinned and supported by what Hager refers to as a '*bewildering array of theories*' (1999, p. 66). Turnock and Mulholland (2007), report Kearsley's categorisation of over fifty different theories. Adults learn in many different ways. Illeris (2002) has noted that learning is a '*highly complex matter*' (p. 9) and contends that no single learning theory adequately explains all learning. He suggests that any learning theory that has received a certain amount of recognition and dissemination must have something to contribute to the whole. Gredler (2005) observes that each particular theory presents a particular explanation of, and provides unique insights into, the learning process and notes that different learning theories apply to different situations. An understanding of the various learning theories provides teachers and curriculum designers with insights into the learning process and equips them to design effective learning environments and experiences and thereby promotes successful learning (Child 1998). As work based learning draws on elements of numerous learning theories, it is considered useful to outline the main features of the principle learning theories to highlight their assumptions about how learning takes place in the workplace.

### *Andragogy*

Andragogy is the term which Knowles defined as '*the art and science of helping adults to learn*' (quoted in Conner, Wright, Curry, DeVries, Wilmsmeyer and Forman 1995 p. 10). According to Turnock and Mulholland (2007), this learning theory proposes that adults

are self-directed and that learning programmes must recognise that adults '*expect to take responsibility for decisions*' (p. 12). They summarise the principles of this theory:

- adults must involve themselves in, plan and evaluate their own learning;

- learning is founded in experience;

- adults learn better when it is relevant and is of immediate value i.e. adults need to know why they need to learn something and

- adults learn more effectively through problem solving than absorbing content.

It is suggested that the workplace provides the stimulus for all these conditions.

### *Behaviourism – Operant Conditioning*

Behaviourist learning theories claim that learning may be seen in terms of change in overt behaviour (Reece and Walker 2003). Behaviourists claim that individuals form perceived connections between events (a stimulus) and its consequences (response) which are either rewarding (reinforcing) or unpleasant. When a particular stimulus-response connection is reinforced the individual is conditioned to respond and consequently behaviour changes (Turnock and Mulholland 2007). Put simply, behaviour which is rewarded and encouraged is likely to recur.

Behaviourist learning theory focuses on achieving predetermined learning outcomes. It favours step-by-step approaches which allow behaviour to be shaped. The approach is didactic and teacher centred and seeks a controlled environment to promote the desired behaviour and discourage unwanted behaviour (Conner et al. 1995). Behavioural learning approaches are widely practiced in the workplace in the form of drill and programmed instruction which encourages learners to adopt efficient working practices. Standard procedures described in practice manuals are examples of this approach in operation. Behaviourist learning practice is criticised for inhibiting independent thinking. Behaviourist theories, nevertheless, remain highly influential and have underpinned many systematic instructional designs.

### Humanist Learning Theory

Humanist learning theory is concerned with a holistic approach to learning (Reece and Walker 2003) which recognises that learning is a holistic process (Boud, Walker and Cohen 1993). Proponents view individuals as being motivated to improve and develop their own knowledge. Humanist approaches aim to enable individual learners to achieve their full potential. The approach is overtly learner centred and focussed on the individual, with the educator acting as a facilitator or coach. The approach promotes learning through discovery and self directed learning where individuals assume responsibility for their own learning. The learner's own insights and experience play a key role in the learning process. Autonomy, self direction and self development are seen as key objectives within humanist learning theory. These attributes are highly valued in employees. Humanist approaches also favour collaborative and active learning which overlap into the constructivist and social learning theories.

### Cognitive Learning Theories

'*Cognitive psychology is the study of how our minds work, how we think, how we remember, and ultimately, how we learn* (Conner et al. 1995 p. 26).' Cognitivism may be viewed as an information processing model, concerned with how learners gain and organise knowledge. Cognitive approaches aim to develop high quality understanding (Bigge and Shermis 2004) and the capacity and skills to learn better (Merriam and Caffarella 1999). These theories are based on two assumptions; that the memory system is an active, organised processor of information; and that prior knowledge plays an important role in learning (Gredler 2005). Learning is viewed as a developmental process involving building on internal *schema* (knowledge structures) or reorganising, modifying and extending existing *schemata* (Conner et al. 1995). Learners receive information and actively fit this into their existing mental structures (Reece and Walker 2003). Cognitivist learning theory has led to the development of constructivist and social learning theory which recognise the importance of workplace. It is suggested that the nature of workplace provides frequent opportunities for reflection, thereby stimulating learners to transform information into knowledge and make it their own. This, in turn, encourages progressively more complex learning.

### Constructivist Learning Theories

Constructivist learning theories hold that learning is a process of constructing meaning (Merriam and Caffarella 1999). Constructivist learning approaches stress the process of learning, rather than the product and emphasize the importance of experience, learner activity and the context (Lave and Wenger 1991) in developing knowledge. Learning is seen as a continuous process (Driscoll 2000; Reece and Walker 2003). Constructivist learning theories underpin work-based learning approaches.

'*The learning associated with work placement is primarily experiential in nature* (Keating 2003).' Numerous commentators have emphasised the importance of experience in the learning process. Dewey claims that '*all genuine education comes about through experience'* (quoted in Merriam and Cafferella 1999 p. 223). Boud, et al. (1993) propose that '*Experience is the foundation of, and the stimulus for, learning . . . learning can only occur if the experience of the learner is engaged, at least at some level* (p.8).'

Kolb describes learning as a four stage cycle, illustrated in Figure 2. The process involves engaging in new experiences (concrete experience); reflecting on these (reflective observation); integrating ideas resulting from the experience (abstract conceptualization); and applying these new ideas in actual practice (active experimentation).
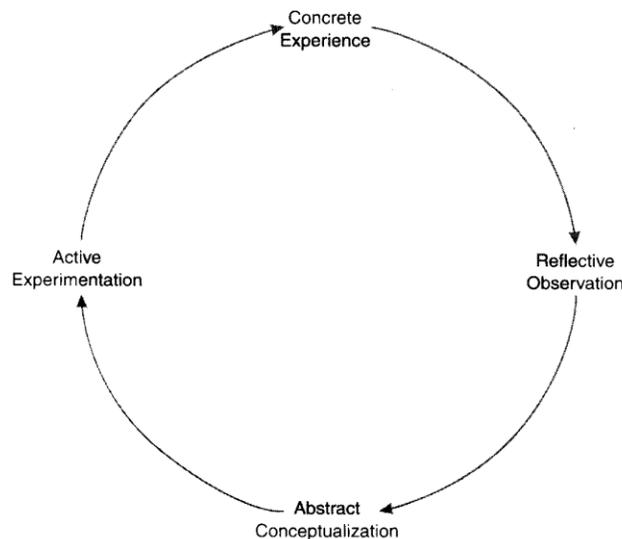


Figure 2 Kolb's learning cycle (Source Illeris 2002)

The overall process describes learning as involving transforming experiences into knowledge. The final stage of the cycle restarts the process thereby establishing a continual learning spiral allowing learners to gradually develop deeper understandings of complex experiences and generate further meanings and implications (Turnock and Mulholland 2007).

Boud et al. (1993) note that experience itself does not necessarily result in learning: there needs to be active engagement with it. '*Experience has to be arrested, examined, analysed, considered and negated to shift it to knowledge* (Criticos 1993 p.161).' This second stage of Kolb's model aims to generate new perspectives which in turn lead to re-evaluation, experimentation and behaviour change, or a commitment to action. Experiential learning, therefore involves '*learners actively construct*[ing] *their experience*' (Boud et al. 1993 p. 9).

The learning process cannot be separated from its context (Merriam and Cafferella 1999). Learning occurs most effectively when learners are actively involved in the context in which the knowledge is to be used (Boud and Feletti 1997) and this knowledge is remembered longer and is more easily retrieved (Engel 1997). Merriam and Caffarella quote Wilson's view that everyday learning only occurs '*among people acting in culturally organized settings*' suggesting that the physical and social context and the tools used are central to the learning (1999 p. 241).

Turnock and Mulholland suggest that constructivist instruction should focus on providing experiences and contexts that encourage learning and present an appropriately structured approach which allows the learner to grasp key principles and enables them to '*fill in the gaps . . . to go beyond the information given* (p. 13).'

### *Social learning theory*

Social learning theories hold that learning occurs within social and community relationships, is '*culturally constructed and is influenced by the socio-emotional context in which it occurs . . .* [and that] *virtually all learning can occur vicariously by observing other people's behaviour and its consequences for them* (Bandura, quoted in Bigge and Shermis 2004 p. 166).' These theories recognise the role of the community in shaping

learning. Social learning theories emphasise the importance of shared, informal learning in natural settings together with experiential learning approaches (Gredler 2005). Social learning theory impacts on work based learning in a number of ways. In particular, colleagues play a key role in modelling, mentoring and guiding new roles and behaviour. Bennett, Dunne and Carré (2000) argue that the '*effectiveness of 'learning on the job' aligns well with theories of situated learning . . . the impact of aspects of the organizational culture on learning and transfer can be very powerful* (p. 17).' Paloff and Pratt (2005), claim that individuals learn more readily through social interaction rather than through individual exploration. They contend that collaborative processes promote initiative, creativity, critical thinking and communication skills and that shared learning goals develop learning communities which promote deeper, more efficient and complete learning than by working alone. Lave and Wenger (1991) contend that learning should be seen as 'distributed' among communities of practice or learners, rather than residing within individuals.

## *Summary*

According to Murphy (2008) work-based learning approaches are associated with '*activist, constructivist and social learning paradigms*' (p. 13). She observes that the work based learning model focuses on locating students in situations where '*affordances for informal and non-formal learning are ubiquitous*' (p. 12). This model focuses on '*action in the world*' [which] . . . '*changes both the learner and the learner's environment*' . . . and '*prefers an andragogical . . . rather than a pedagogical or training model of learning*' (p. 15). This model views learning as being integral to being in the world in general and to working lives in particular. She refers to Eraut's argument that personal learning is not solely individual but distributed and socially constructed by many people and that '*context factors can enable learning by providing structures, relationships and motivation for learning. Learning factors include challenging work, feedback and self-efficacy* (p. 16).' This conceptualisation is illustrated in Figure 2.2.
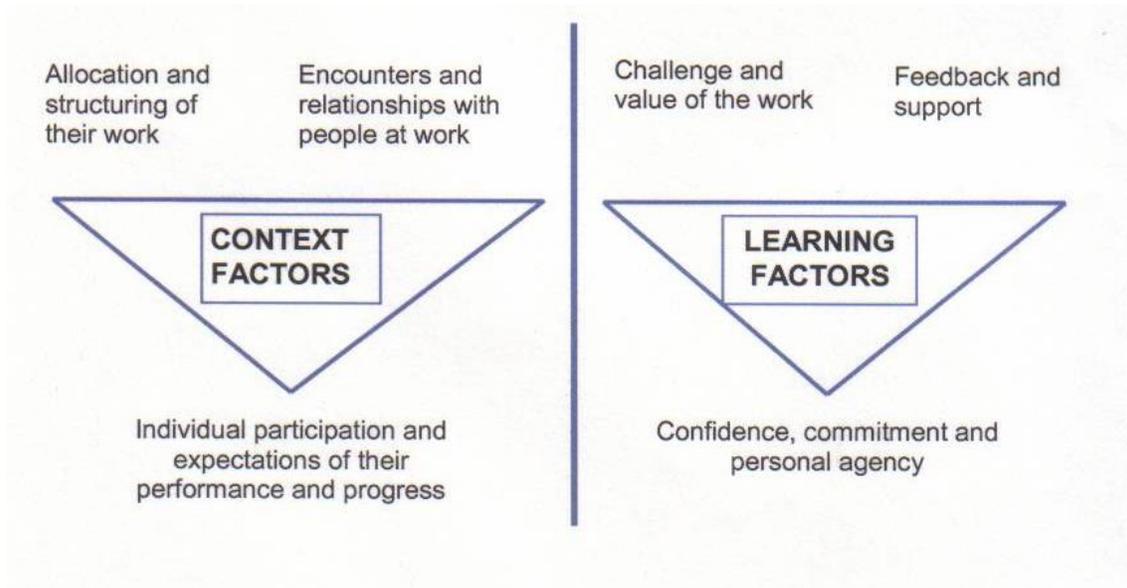
Figure 3 Eraut's Conceptualisation of Learning Factors at Work: (source Murphy 2008)

The above discussion identifies that learning in the workplace is a complex and contested process which draws on a wide range of learning theories. Hager explains that this results from the nature of workplace learning being an interdisciplinary topic with a wide literature in a number of diverse disciplines. He contends that if there are different views about the what the core issues of workplace learning are, then opposing theories '*are only to be expected, since they will be seeking answers to different questions*.' He concludes that this consequent diversity of theorising is '*a healthy situation*' (1999 p. 68).

## Models of work placement

Work placement must be distinguished from other work based learning approaches such as those described by Boud, Solomon and Symes (2001) who characterise work based learning as involving a partnership between industry and academia through which company *employees* undertake learning projects in work to gain academically validated qualifications and develop knowledge to meet individual and *organisational* development needs. Academic work placements share a number of these characteristics, however in these instances, the learner is a *student* rather an employee and the focus remains primarily *academic* rather than commercial. An important common factor between the

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two approaches can be summarised in their claim that '*work is the curriculum*' (2001 p. 5).

Murphy (2008) notes that '*learning through work has always been recognised in higher education and* (identifies) . . . *placements, apprenticeship, internships, sandwich courses and block release*' as means of delivering this learning (p. 2). Cunningham et al. (2004) describe internships as a period of paid or unpaid supervised and structured work experience prior to professional qualification, whose main aim is to move from theoretical and academic studies into practical application and development of work-related skills.

Work placement approaches vary a great deal between different educational institutions and form an important component of many full time third level education programmes. In the past many programmes, particularly in the vocational and technological education sectors, expected students to obtain appropriate work-related employment during the summer break. This aspiration, however, was typically not enforced, supervised or assessed, and the quality of the work experience varied widely. In addition, suitable short-term employment opportunities were occasionally difficult to obtain. Curriculum designers have attempted to solve these problems by integrating work experience into the programme.

Work placement can adopt various forms: DIT provides a useful example within the higher technological education sector of the flexibility of the approach. By June 2008, work placement formed a component within 30 full time undergraduate programmes within the Institute and all six Faculties offered at least one course containing work placement. The length of the placement varies from short term placements on higher certificate courses: aiming to provide the learner with, possibly, their first experience of working in a particular sector to extended hospital placements of two academic years. Typically the placement is approximately one semester (15 weeks to seven months) long and is generally undertaken in the second semester of the penultimate year of the programme and is generally taken in a single block. Parts of some placements are taken during the summer months. Placement was mandatory on all but two of the thirty courses.

Students on medium and longer term work placements are usually paid and students typically could expect to cover their living expenses (Dublin Institute of Technology 2008).

Beyond DIT work placement is becoming a more widespread and common approach in higher education. Within the university sector, the trend is most apparent in the more recently established universities. The University of Limerick pioneered the approach catering for 2,000 placements per annum by 1999 (Mc Ginn 1999). Dublin City University currently operates the InTRA integrated training placements on many of its' programmes. Within the more established universities, Trinity College Dublin and The National University of Ireland (UCD, UCC, UCG and NUI Maynooth), the emphasis remains on voluntary student-organised summer placements which is supported by the various institutions' career service. As of March 2008 UCD, for example did not provide work placement as part of their curricula.

Silver (2007) reviews the development of sandwich course education in the UK from its origins in Glasgow University in the 1840s. The demand for a large increase in the numbers of students in applied science and technology in quarter century following World War II, led to a rapid expansion in the provision of sandwich placement courses in the Colleges of Advanced Technology and subsequently, the polytechnics. The aim was to '*combine a practical industrial approach with a greater element of broad fundamental science*' (p. 299) than had been found in existing courses. Sandwich courses represented just over 7% of further education provision in the UK in 2004-2005 (Little and Harvey cited in Bennett et al. 2008).

McGinn (1999) reports that cooperative education, the US equivalent of work placement approaches, was first introduced in the University of Cincinnati in 1906 and had been adopted by more than 2,000 universities and colleges by the turn of the millennium. He notes that the University of Limerick introduced this concept to Ireland during the 1970s.

## Organisation of work placements

The approach taken in implementing a work 'sandwich' placement has been described by various commentators (Mc Ginn 1999; Keating 2003) and typically includes the

following components: designing the curriculum, procuring placement positions, student preparation, appointing academic supervisors, arranging and supporting the placement, supervisor support, outcomes assessment, employer evaluation and academic follow up.

## *Designing the Curriculum*

The various arrangements available to course designers for work placement have been reviewed above. The programme should, ideally, be designed in accordance with Toohey's (1999) and Biggs' (1999) principles and aim to deliver effective educational experiences. Turnock and Mulholland (2007) argue that the programme must have clear, '*student friendly'* (p. 40) aims to guide both the student and their supervisors. These aims should be supported by appropriate learning outcomes reflecting the level of student ability. In addition the programme should outline how the student is to be supported during the placement.

## *Procuring placements:*

Little et al. (2006) contend that '*if work based learning is so important, then there needs to be equal access to it'* (p. 130) and Murdoch (2004) points out that these placements should provide adequate opportunity for achieving the intended learning outcomes. In this light, Little and Harvey (2006) comment that *'the difficulties of securing suitable placements for the ever increasing numbers of students . . . should not be downplayed* (p. 59).' Securing appropriate placements is a major challenge for institutions, particularly when work placement opportunities are scarce. In a depressed sector it may be necessary to seek placements beyond the immediate region or abroad: these present major difficulties in terms of supporting, visiting and assessing students.

McGinn (1999) discusses the importance of identifying suitable employers, acquiring and developing company intelligence, establishing an adequate and appropriate employer network and encouraging employers to participate in work placements; Little and Harvey (2006) point to the need to secure 'repeat business'. This process is facilitated by implementing administration and liaison with participating organisations which may be coordinated by a college External Affairs Division (McGinn 1998) or Faculty Placement Officer (Keating 2003).

*Student Preparation*

The preparation of students for the work-placement is fundamental to the success of the process. Preparations vary between institutions. Keating (2003) contends that the quality of the placement can be significantly improved by ensuring that students already have acquired a solid foundation in both personal and technical skills required for the placement and, in particular, indicates the desirability of developing noticing, reflection and intervention skills to maximise the benefit of placement. Hill (2004) advocates an approach where final year placement students present their experiences to pre-placement students. McGinn (1999) outlines a preparatory process involving briefing the students on the main elements of the programme which emphasises developing presentation and interview skills and providing advice on drafting CVs.

*Academic supervision*

The academic supervisor occupies a key role in the work placement process. Turnock and Mulholland (2007) note that work-placement supervisors should fill a coaching role and act as an '*information broker*' to students to help them understand and adapt to workplace culture and to help them appreciate their contribution to their employer's organisation and its relevance to learning at college. They suggest that the academic supervisors' duties fall into four categories: *managing the process* which involves planning, briefing, troubleshooting and debriefing; *student advisor* which involves identifying and addressing problems; *educator* which involves negotiating learning objectives, facilitation, supervision and feedback; and *assessor* which involves verifying the level of competence achieved. They characterise effective supervisors as enthusiastic, interested in the learner, motivating, open, empathic, and positive and a skilled listener.

*Arranging and Supporting the Placement*

Students' placements may be arranged by direct contact from the student, by institution recommendation or by student interview. Little and Harvey (2006) comment that students may take the initiative in securing their own placement where they want to work with a particular employer and may apply on-line or seek out job opportunities on the web. They also describe how the college may screen students by matching student and employer preferences and recommend compatible students to the employer. McGinn (1999)

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describes a similar process where applicants are screened and a panel of typically six résumés are sent to the prospective employer for interview.

Work placement is typically supported by employer visits by the academic supervisor (McGinn 1999). The purpose of these visits is to discuss student progress to identify issues which may improve the process. The employer visit may form part of the assessment of the programme.

*Assessment*

Brennan (2005) notes that early versions of work placement were often not formally assessed; however, students were generally required to produce a placement report or keep a log book. Murdoch (2004) notes that since 2001, UK work placements must comply with the *Code of Practice for the Assurance of Quality and Standards in Higher Education: Placement Learning,* which assumes effective quality assurance system to ensure that standards are maintained and the learning outcomes are assessed. It is now unusual for placements not to be formally assessed (Brennan 2005). In many instances students are *required* to pass the placement component in order to graduate. (McGinn 1999).

There is a wide range of methods available to assess work placement. Keating (2003) lists Gray's examples: self and peer assessment; assignments and projects; portfolios; dissertations and theses; presentations; poster displays and learning log or diary. He suggests using a range of methods, with broad and flexible assessment criteria which can cater for various learner styles and differing learning environments. In the School of Construction in DIT the assessment of the Work placement is carried out using a combination of monthly student progress reports (40%), a supervisor visit (20%), employer evaluation (15%) and a student post placement presentation (25%).

The inconsistent quality of placements presents particular problems and assessors must ensure equality of treatment amongst students (Hill 2004; Murdoch 2004). It is therefore essential that appropriate assessment strategies are implemented. Sheffield Hallam University, for example, assesses the student placement on the basis of competence development by means of a presentation and a portfolio of evidence *of their reflection on*

*their learning* during the placement, rather than on the experience itself. The students are encouraged to identify good and bad experiences and must identify in their submission how development of competencies has taken place (Hill 2004). Where learning contracts are used, the assessment is a relatively straightforward process of establishing the degree to which learning outcomes are achieved (Keating 2003).

### *Employer evaluation*

The degree of employer involvement in the assessment process varies amongst institutions. McGinn, (1999) notes that the University of Limerick provides for employers to return a students performance and placement evaluation form which forms part of the student's academic record.

### *Debriefing*

Debriefing involves the detailed questioning of the student about their experience with the aim of identifying and consolidating the learning and working through problems that may have arisen during the placement. In many instances students are unaware of the extent and nature of the learning that has occurred and may feel that they have learned very little unless it is drawn out through discussion. The debriefing process is also an opportunity to work through negative features of the placement experience such as lack of motivation on return to college; ethical dilemmas and doubts about career choice, which cannot be resolved by making notes (Keating 2003; Little and Harvey 2006).

## Evaluation of Workplace Learning.

Auburn (2007) comments that work placement is widely viewed as beneficial, and receives extensive support in the literature. Bennett et al. (2008) for example, are typical in claiming that '*Overwhelmingly, investigations have concluded that formal work placements bestow significant benefits on both the student and the employing firm*' (p. 122). They promote the approach from the employer's perspective and suggest that employers regard work placement more highly than a high degree classification and the status of the graduates' university when assessing graduate applicants seeking permanent employment. Support from the academic perspective is provided by Mandilaras (2004) and McGinn (1999). Support from the student perspective is led by a wide range of

contemporary educational theorists and commentators who advocate the experiential and situational learning contexts discussed above.

The support for the effectiveness of job placement is not without criticism however. Silver (2007) reports early criticism of the sandwich approach and cites Hutchings 1967 claim that '*in practice one soon finds the snags, and even with the most careful arrangements it is not uncommon to find both students and teachers disenchanted with the system* (p. 304).' Hutchings noted poor collaboration and motivation of employers and supervisors resulted in variable quality outcomes within the approach. The Chilver Committee on the education and training of civil engineers in 1975 was critical of sandwich courses and preferred '*practical training in employment for several years after graduation*' (Silver 2007 p. 306).

Auburn (2007) suggests that there is a widespread uncritical view of the work placement approach. He contends that there is a tendency in the literature to express a view of '*unalloyed goodness . . . and a gearing towards the good news story of the supervised work experience* (p.109).' He identifies some evidence supporting work placement, which he suggests '*is very weak*' and notes that criticisms of the approach '*tend to be downplayed*' as faults which can be rectified by improved design thereby forestalling the challenge that work placement is beneficial.

The following sections present the claimed benefits and disadvantages of the work placement approach and identify key issues in its implementation and operation.

## Advantages of Work Placement

Support for the contention that work placement is effective has been presented by a number of sources. Cunningham et al. (2004) interviewed 140 people in ten UK organizations to explore how people learned to be more effective and to progress their careers. Their research revealed that most learning at work results from doing the work itself and collaborating with colleagues. They cite Eraut et al.'s findings '*that at most 10-20 per cent of what makes a person effective comes from education and training*' (quoted in Cunningham et al. 2004 p. 8) and suggest that most learning at work is unplanned and opportunistic. They conclude therefore that '*education and training have a minor role to*

*play in supporting learning for work'* (p. 16). This is a powerful argument for adopting work placement, given that vocational education's objective is to prepare students for the workplace.

The discussion of work placement models above identified that the majority of courses using this approach are vocational. They aim to prepare, educate and train students for a particular career. Murdoch (2004) maintains that work placement modules are included in educational programmes because of their vocational relevance to the programme and to prepare students for work. He cites McKenna's views that the placements should aim to '*provide practical experience*; *develop knowledge and skills beyond the classroom; explore career choices*; *develop the ability to work with others* [and] *improve working habits* (p. 122).'* It is suggested that these aims form highly relevant and effective learning outcomes for vocationally focussed programmes and are beneficial to employers, the educational institutions and students.

### *Benefits for employers*

Murdoch (2004) maintains that the success of placements depends on a mutual understanding of the aims and roles of the approach by the students, employers and academics. Wilson (cited in Murdoch 2004) contends that students must demonstrate a willingness to contribute and learn and to exhibit a good work ethic. He also maintains that employers must prepare students for the workplace and provide appropriate tasks.

### *Vetting potential employees*

Employers view the placement process as an opportunity to screen potential employees (Murdoch 2004) and build an ongoing relationship with the educational institution with a view to recruiting or retaining graduates (Blackwell, Bowes, Harvey, Hesketh and Knight 2001). Bennett et al. (2008) note that where a company subsequently employs a placement student following graduation, that they will have benefitted from the screening process provided by the educational institution and will have had the opportunity to form an in-depth judgement of the student's ability and potential during the placement. There will be ample opportunity to observe the student's personal attributes, which Wilson claims are the most important employment selection criteria. Bennett et al. (2000) suggest

that employers not only seek recruits who possess discipline related knowledge but also a range of well developed generic skills. They echo Slee's call for graduates to be highly qualified, able to think, learn and adapt, be problem solvers, effective communicators and team players. Bennett et al. (2008) support this view and claim that '*numerous studies have shown that strong disciplinary knowledge of itself rarely helps a fresh graduate obtain a career-oriented job* (p. 117).' Harvey et al also claim that employers call for graduates with potential to transform organisations in anticipation of change and claim that traditional educational programmes struggle to deliver graduates who possess these qualities (cited in Bennett et al. 2000 p. 4)

*Cost effective*

Murdoch (2004) notes that placement is cost effective as it allows the use of students to carry out routine or technical tasks which consequently releases experienced staff from '*sub-professional duties*'. He notes that a primary factor affecting placement is company need. Bennett et al. (2008) note Shepard's observation that businesses may recruit placement students for specific projects, or, more critically, simply to obtain cheap labour. It is suggested, that this is an attractive and flexible staffing option, particularly for smaller businesses that may be reluctant to employ additional full-time staff to meet short-term capacity limitations. McGinn (1999) notes that where the placement is with international partners, it develops a pool of graduates with hands-on experience of working abroad, in a different language and commercial environment and who possess mobility and cross cultural skills.

*Produces 'ready to work' graduates*

Hill (2004) expresses the widespread call from industry for work-ready graduates which was strongly emphasised in the Dearing Report (1997)

> 'The strongest single message which we received from employers was the value of work experience. This is particularly emphasised by small and medium enterprises that need new employees to be able to work effectively in the workplace from their first day. Further development of work opportunities requires action by both employers and institutions.'

National Committee of Inquiry into Higher Education (1997)

Hill argues that work placement is a straightforward way of satisfying Dearing's call. According to Bennett et al. (2008) students who have undertaken a work placement should have a realistic view of the nature of their chosen career and as a consequence are less likely to suffer culture shock when starting their first full-time job. Their research revealed that 67% of a sample of 169 employers perceived that graduates who had undertaken work placement '*fit(ted) into a firm more quickly and easily*' (p. 113). They also refer to Leslie and Richardson's findings that placement students require less training (2008 p. 106).

## *Benefits for academia*

The political pressure on educational institutions to strengthen links to industry has been outlined above. In particular McGinn notes the report of the Science, Technology & Innovation Advisory Council's (STIAC) identification of the potential of work placement and cooperative education approaches to develop formal partnerships between educational institutions and industry (1999 p. 94). He claims that educational institutions benefit from these links.

## *Mutually beneficial links between academia and industry*

The vocational education sector is primarily aimed to prepare students for work (Murdoch 2004). McGinn (1999) notes, however, that few educational institutions have the financial resources to provide the latest facilities and equipment operated by industry and must therefore seek to develop reciprocal relationships with industry with a view to both benefitting from each other's strengths. He claims that these links provide educational institutions and students with access to industry's state-of-the-art equipment and current best practice. Lave and Wenger (2002) argue that use of the practice's technology and input into its' products is more than learning how to use tools; they claim that it is also a way to connect with the history of the practice and to participate more directly in its cultural life.

McGinn (1999) maintains that work placement provides a means to develop healthy working relationships with industry. These provide a forum for the exchange of ideas, views and practices, which may, in turn, lead to high level contact in areas such as

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'*research and development, product development, process development, consultancy, training and faculty development*' (p. 94). Placements and consequent collaborative activities inform employers of what higher education does and how it operates (Blackwell et al. 2001) and may enhance a university's reputation in the business world (Bennett et al. 2008).

*Informs curriculum design*

Murdoch (2004) notes that work placements are incorporated on educational programmes because of their vocational focus and notes that employers judge their effectiveness by student productivity. Employers and the professions are major stakeholders in the vocational educational process and McGinn (1999) and St Armant (cited in Bennett et al. 2008) contend that educational institutions must cater for their needs and ensure that curriculum and syllabus design is current, relevant and reflect the '*knowledge and skills that will be expected of graduates in the 'real' business world*' (2008 p.106). Blackwell et al. (2001) claim that placements may change teachers' attitudes and result in a more relevant curriculum by allowing work experience concerns to '*leak*' into the curriculum and '*rub off*' on teaching staff. McGinn (1999) notes that placement firms provide valuable feedback which facilitates the fine tuning of course design and identifies the need for new courses to meet industry demand. He concludes that this has led to a more responsive mind-set to industry changes amongst his colleagues.

*A means of staff development*

Murdoch (2004) indicates that the placement process typically involves supervisors visiting the workplace, frequently more once. These visits allow the tutors to counsel the students, monitor the experience and develop employer-institution links. He suggests that these visit afford tutors the opportunity to observe and discuss current industrial practice at first hand which contributes directly to staff development.

It is suggested that students are encouraged to explore innovative aspects of their chosen practice in their final year assignments and frequently incorporate elements which they had experienced during their work placement. This also has a knock-on effect of informing staff of current developments in the work place.

Finally, Breathnach, cited in Blackwell et al. (2001 p. 272) claims that placement promotes more efficient utilisation of institutional resources.

### *Benefits for students*

#### *Viewed positively by students*

Little and Harvey (2006) confirmed Harvey et al.'s earlier '*Graduates Work'* positive findings regarding work placement. They conducted a series of 82 semi-structured interviews with placement students from seven higher education institutions in the UK and found that *all* the students involved in the research agreed that placement benefits outweighed the disadvantages. They concluded that '*students continue to draw very tangible learning gains from work placement'* (p. 59). The students perceived that the placement had developed their interpersonal, personal and intellectual skills. They reported improved communication and networking ability, improved oral and written communication, client liaison and reporting to senior management, and improved phone/e-mail ability. They also claimed increased personal skills including self-confidence, personal organisation, time management, adaptability, flexibility, maturity and risk-taking attitude. The students claimed increased subject knowledge, confidence with subject matter and project management skills; some perceived improved analysis, synthesis and critique skills and foreign language development. They tended to report greater personal rather than intellectual development (Little and Harvey 2006).

#### *Remuneration motivates students*

Work placements are typically paid. The attraction of this factor to students is obvious. In effect, it means that they need to finance one year less of full time study. It may be said that this factor promotes greater access to higher education. Harvey et al. cited in Little and Harvey (2006 p. 2) ranked money at the head a list of benefits that employers felt that work placement provided for students. Occasionally students may secure an unpaid work placement usually with charitable organisations or higher education institutions. In these instances, Little and Harvey (2006) reported that students were usually employed on a four day week basis with the opportunity of obtaining part time work elsewhere.

It is suggested that a key characteristic of the workplace is *financial* reward. Pay and bonuses motivate and encourage enhanced performance and, potentially, study (Blackwell et al. 2001). In addition, the work placement presents an opportunity to impress employers with a view to obtaining full-time employment following graduation.

*Develops 'key skills'*

Bennett et al. (2000) report that research undertaken for the UK Dearing Report (1997) found that students rated getting a qualification for a job as the most important reason for going to university and that students wanted to develop work related skills more than '*conventional academic outcomes such as intellectual growth and stimulation*' (p. 20). The Report calls these 'key skills' which include written and oral communication, numeracy, ability to use information technology and of learning how to learn. They refer to Harvey et al.'s claim that these skills are highly desired by employers who '*want adaptive, adaptable, transformable people*' (cited in Bennett et al. 2000 p.5). Bennett et al. also refer to Arnold's claim that academic courses cannot teach all the competences needed for a career in a particular field and that the employer's contribution to the intellectual development of the student may be substantial.

Crebert et al. (2004) examined graduates perceptions of the effectiveness of the university, work placement and post-graduation employment in developing their generic skills. They found that graduates recognized the contribution university had made to developing their generic skills, but '*greatly valued*' the placement experience and subsequent initial employment. They identified the '*importance of teamwork, being given responsibility, and collaborative learning*' as important factors for effective learning (p.147).

Bennett et al. (2008 pp. 106-7) report Callanan and Benzing's claim that placement students develop a stronger vocational self-concept. They refer to Arnold's. finding that work placement develops greater self-confidence in 'real life' working situations. Blackwell et al. (2001) claim that work experience promotes independence responsibility and maturity and develops interpersonal skills.

Hill (2004) claims that flexibility and transferability are among the advantages claimed for education for professional competence. McDermott, Göl and Nafalski (2000) add that learning derived from experience is '*persistent, transferable and influential*' (p. 71). Generic skills and personal attributes can be applied in contexts that will be encountered after graduation (Crebert et al. 2004).

*Enhances employability*

There is widespread agreement that work placement can help to develop employability skills and reinforce the application of vocational techniques learned in the classroom (Bennett et al. 2008; Little et al. 2006; Hill 2004; Gomez, Lush and Clements 2004; Blackwell et al. 2001). Harvey et al. for example claimed that '*placements are seen by employers and graduate employees as the single most significant missing element of the majority of degree programmes* (quoted in Gomez et al. 2004 p. 374).' Blackwell et al. (2001) maintain that employers value on-the-job experience highly. They carried out four empirical studies which found that students who experienced supervised work placement had higher employment (and lower unemployment) rates and higher self-ratings of their own command of work-related skills. They also found that graduates who had experienced work placement were more likely to become self employed and were more entrepreneurial in their attitude. Hill (2004) adds that work placement is associated with a higher starting salary in permanent employment.

According to Auburn (2007), placement years, are viewed positively by many educators as an effective means of enhancing both employability and student learning. He presents two propositions to account for these benefits: that work placement provides the '*magic ingredient*' and also facilitates '*role transition*'. The 'magic ingredient' model suggests that placement is a particularly efficacious ingredient affecting the quality of the education process and producing employable graduates. The 'role transition' model represents a developmental process where the student progresses to the next stage of study, requiring the student to learn '*to adapt or adopt a changed role in the new setting*' (p.119). Both processes involve learning which can have positive outcomes for the student. A more mundane explanation is offered by Little et al. (2006) who comment that placements present a 'toehold' in an organisation and that students who enrol on

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sandwich courses are *de facto* vocationally oriented. Auburn (2007) adds that these findings, while useful, must be used with caution and claims that they are limited and are typically achieved by comparing programmes with a work experience component with counterparts which do not. He considers this testing to be a relatively simplistic '*factors and outcomes*' approach which fails to take account of how work experience, which is only one component, interacts with the other components in a programme. He adds that the studies do not fully consider the developmental nature of higher education and fail to account for the quality of student preparation, the appropriateness of work experience itself, or the effectiveness of the debriefing process.

*Inducts students into a particular culture*

For many students the work placement may be the first time that they have worked within their chosen career path. In this case the new employee is introduced into a particular community of practice, such as quantity surveyors, for the first time.

Lave and Wenger (1991) discuss the idea of '*legitimate peripheral participation*', whereby newcomers learn their 'craft' through gradual and controlled participation in increasingly responsible tasks within a community of expert practice. They contend that newcomers '*legitimate peripherality*' presents them with more than an '*observational lookout post*': it provides a means of learning which allows them to absorb and to be absorbed into the '*culture of practice*'. Their initial peripherality allows them to form an overview of the community's practice. They observe the day-to-day behaviour, activities, reactions and politics of the community. They develop an increasing understanding of how, when, and about what old-timers '*collaborate, collude, and collide and what they enjoy, dislike, respect, and admire* (p. 94).'

Eraut et al. (2002) have noted that 'induction and integration' into the workplace should ideally focus on enabling new employees to become effective workers and colleagues. They recommend that it should emphasise '*socialisation: understanding the purposes and goals of the unit and the organisation, their own roles and others' expectations of them*' (p. 127). Anakwe and Greenhaus (cited in Bennett et al. 2008 p. 105), claim that

students who have undertaken a formal work placement experience an easier transition subsequently into full-time employment and adjust faster to '*organisational norms*'.

A quantity surveying office will typically afford exemplars of good practice and provide role model(s), ideally recently appointed graduates undertaking their professional training, who the newcomers may wish to emulate. Eraut et al. (2002) note that learning in this situation may result from a process of '*exposure and osmosis*' (p. 129). They comment that, ideally, the newcomer should be exposed to a variety of contexts and situations.

*Links theory to practice and provides meaningful learning contexts*

Keating (2003) has noted that one of the main differences between work and college is '*the real nature of the workplace*' (p. 13). Work placement students are employed on real projects and are required to solve genuine problems in their chosen career path. The learning is directly relevant to the learner's goals and provides a strong incentive to learn (Blackwell et al. 2001). Sims, Murray, Murakami and Chedzey (2006) note that students see practical examples of situations they may have only heard described in lectures and consequently, their learning becomes concrete. Crebert et al. (2004) add that work placement provides students with the opportunity to reflect on the usefulness of the theory, information, procedure and skills received at university and put these into practice.

Schön (2002) notes that professional practice is often repetitive and practitioners frequently encounter certain situations or repeatedly undertake variations of certain types of projects. This allows practitioners '*to 'practise' his practice*' and '*develop a repertoire of expectations, images and techniques*' and in the process develop a trained eye '*in what to look for and how to respond*' (p. 56).

*Colleague support for learning*

Eraut et al. (2002) discuss the central role the provision of a support network plays in employees' learning at work. This means of this support varies amongst employers and includes methods such as mentoring and coaching; rotations, visits and shadowing. They discuss how the employees' membership of a team provides opportunities for '*ongoing*

*consultation and observation*' (p. 136) allowing students to ask questions, clarify uncertainties, correct misapprehensions while simultaneously providing opportunities to learn by observing colleagues in the day-to-day performance of their duties. The group environment also provides a vital source of feedback and a source of help and advice which significantly affects the quality of the learning.

Billett (2001, 2004) argues that companies must develop workers in order to ensure their survival and that learning is central to achieving this aim. He adds that workplace learning is inherently pedagogical in developing workers' skills. He contends that workplace learning provides a '*pathway of participation*' by providing learners with opportunities to participate in goal-oriented tasks alongside and under the guidance of experienced colleagues and experts He argues that although knowledge construction is unique to individuals, but is heavily influenced by workplace practice.

Lave and Wenger (2002) observed that apprentices learn mostly in relation with other apprentices and that knowledge spreads exceedingly rapidly and effectively among peers. Consequently, they suggest that engaging in practice, rather than being its object, may well be a condition for the effectiveness of learning.

*Encourages study and improves subsequent academic performance*

Eraut et al. (2002) note that workplace provides a strong incentive to become self directed learners by enabling them to adopt an active role in learning from doing the work and using initiative to find out what they need to know. They suggest that managers can facilitate this process by choosing appropriate tasks and encouraging student learning initiatives.

Hill (2004) claims that sandwich students usually improve their academic performance in their final year. This claim is supported by Mandilaras (2004) who found that placements significantly increased the chances of obtaining an upper second or higher degree classification. He suggests that the placement students mature more rapidly in an often competitive and professional environment; their ambition is stimulated, and they returned to university more focused and determined to do well. Blackwell et al. (2001) support this motivational stimulus suggesting that the pull of a career direction is translated into a

push for learners to achieve the necessary grades. Mandilaras (2004) suggests that workplace responsibilities may enhance student reliability encouraging them to take coursework and exams more seriously and work more effectively to deadlines. Gomez et al. (2004) found that students undertaking '*a 3rd Year optional (but recommended) sandwich in a bioscience degree added 4% to final year performance and 25% of the placement students may have improved their degree classification as a result of this.*'

Auburn (2007) reports that students claimed many instances of learning something useful during their placement which they subsequently used or applied during their final year. He lists these as: placement experiences which linked with final year theory, particular skills which were directly relevant to final year assessments, and an enhanced work ethic which improved the student's attitude to completing assessments (p. 125). Sims et al. note that '*students return from work placements with a number of questions for which they then actively seek answers and their learning becomes more active.*' They also have '*a fund of anecdotes which make them more interesting to each other and their lecturer* (2006 p. 470).'

*Opportunity to experience alternative career options*

Little and Harvey (2006) note that some students choose particular placements because it allows them to test whether they would like to work in that particular job. The arrangement also allows students to try out work in different sectors or specialisms within an industry without committing themselves on a long term basis. For example they may obtain work with a local authority, financial institution or a multi-national company either at home or abroad; this allows their learning becomes more focussed. Little et al. (2006) add that students are frequently vague when they enter college about what a particular career entails and these placements are valuable testers which may open up new areas of interest and enable them to confirm, reject or change previous career plans.

## Criticisms of Work Placement

The relative scarcity of literature related to work placement issues as they affect employers has been commented earlier and this is understandable. Employers' immediate concerns are, after all, to run a business. Similarly academic research into work

placement has concentrated overwhelmingly on the concerns of teachers and students rather than employers. Commentary on the following issues therefore has been drawn mainly from the literature dealing with student and the institutional concerns. Consequently, the following discussion relates to common issues for the three stakeholders and has been categorised in a somewhat arbitrary manner.

### Issues for employers

#### Work Placement is not cost effective

Little et al. (2006) question whether placement is worth the cost. They note that successful placement involves planning and resourcing from both the college and employer. They infer that employers may be unwilling to offer placements unless the student is deployed to carry out a particular task or an additional project. Cunningham et al. (2004) claim that the cost of induction and supervision of placement students represents '*a drain on the resources of an organisation*' (p. 63) and is seen as a barrier, particularly by small firms, to engaging in the placement process.

From the employers perspective it is suggested that putting considerable effort into a placement student is risky. Employers have no guarantee that placement students will return having completed their studies and the effort invested in training the student will have been wasted – referred to as the 'apprenticeship equation'.

#### Inadequate briefing

Turnock and Mulholland (2007) argue that the placement programme must have clear aims to guide both the employer and the student. Cunningham et al. (2004) state that work-place supervisors need full briefing, and ideally, training to optimise the process. Lave and Wenger (2002) have cautioned against the risk of supervisors viewing their task as teaching, instructing and/or pushing the student rather than facilitating the achievement of the learning outcomes. Walker and Boud (1994) add that supervisors who are not carefully chosen or who are inadequately prepared or do not understand, or are not interested and involved in their role, may undermine the approach.

*Inadequate student preparation*

Walker and Boud (1994) identify deficiencies in student preparation as a factor which may result in an ineffective work placement. They note that difficulties arise when individual students lack awareness of the learning process, lack the required skills or are unable to learn what is needed. The student must possess adequate technical skills and personal attributes to perform successfully. Little and Harvey (2006) add that many students had very vague ideas about what the placement involves, what work they would be doing and the level of responsibility expected. Individuals experience stress or shock when entering the workplace inadequately prepared.

*Control*

According to Ashton (2004, p. 22) '*the qualities employers are concerned with are those of obedience, loyalty, reliability and compliance'.* It is suggested that a 'student mentality' is not entirely compatible with these ideals and the differing outlooks may lead to tension. Turnock and Mulholland (2007) provide examples of irritants to employers: lack of discipline/professionalism, poor attitude, timekeeping, misdemeanour, and lack of initiative among students. It is suggested that because of the temporary nature of work placement that employers may be reluctant to discipline student behaviour regardless of the arrangements agreed with the educational institution.

### *Issues for academia*

*Lacks academic rigour and validity*

Hill (2004) maintains that placement occurs outside the college and that the quality of the experience cannot be fully controlled. Little et al. (2006) report that the student experience is highly variable and occasionally unsatisfactory.

*Resourcing*

Little et al. (2006) note that there is little accurate data on the cost of placements from the institutions' perspective. They point to findings that off-campus approaches are typically resource intensive in terms of staff time. It is suggested that the nature of work placement demands significant one-to-one student/tutor support in terms of arranging, visiting,

supporting, assessing and debriefing the process. Supervisors may experience conflicting demands between organising and administering the placement and their other duties. Visits may be postponed, missed, cancelled or never arranged in the first place.

*Are they Necessary?*

Bennett et al. (2008) claim that most students receive work experience through term-time and vacation employment *irrespective* of whether their course has a placement component. They refer to Bennett and Kottasz's research which revealed that 96% of a sample of 630 students worked during term time, with 60% of the students spending over 13 hours per week at work. They also refer to the rising proportion of previously employed mature students and the increasing emphasis on group work and employability skills in higher education. They question whether work placement actually raises graduate employability by '*significantly greater extents'* than traditional curricula. Their study suggests that certain employers are more concerned with ensuring that graduates have '*attained basic levels of numeracy and literacy than with requiring that newcomers have completed work placements*' (p. 109) and may favour higher degree classifications when recruiting. Bennett's study, however, relates to the UK experience, where students may not have studied Maths, or English after their GCSE examinations, whereas both subjects are taken by the overwhelming majority of Irish Leaving Certificate students.

Bennett et al. (2008) found that 42% of employers perceived that term-time and vacation work provided experiences which were '*just as valuable'* as formal work placement: 36% disagreed with and 24% were neutral about this proposition (*sic* 102%). This finding is interesting in view of the criticisms that casual work lacks structure, variety and is not assessed. They also found that 75% of employers sampled responded that academic group work nurtured leadership and interpersonal skills, although they perceived this approach as being less effective than placement. Overall, they found that employers continue to view casual work favourably when recruiting graduates and hold the work placement in high esteem.

A further consideration is whether the employability benefits transfer to subsequent employments. Little et al. (2006) conclude that while placement improves initial

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employability it has little effect thereafter. They suggest that the learning curve for employability skills in the initial stage of employment is steep, but rapidly levels off as learners acquire more job-specific skills whereas graduates who start without work experience quickly make up the ground.

*Availability*

The availability of placement opportunities depends on economic conditions. Difficult economic circumstances lead to a shortage of suitable placements and in these circumstances institutions cannot guarantee the availability of high quality placements. Optional placements may be seen as a safer option in this context and offer a greater degree of control by the institution over constantly changing economic conditions.

Optional placements commit the institution to providing alternative arrangements for completing the programme (Little et al. 2006). Arrangements typically include key skills training, self development skills strategies combined with industrial visits (McGinn 1999) or accrediting organised or *ad hoc* work experience external to the programme of study (Little et al. 2006). Alternatively placements may be arranged by a university abroad.

*Poor implementation and support*

The purpose of work placement is to achieve defined educational outcomes and it is therefore essential that placement programmes are properly implemented to avoid negative impacts on both employers and, in particular, students. Ryan et al. (1996) note that students regarded poor and underprepared supervisors as negative features of work experience.

**Issues for students**

*Activities do not generate meaningful learning experiences*

There is an onus on placement students to actively seek learning opportunities to construct their own knowledge. Barnett (1999) observes that *'work and learning are not synonymous. They are different concepts. Some kinds of work offer little in the way of learning opportunities* (p. 41).*'* Cunningham et al. (2004) add that working *per se* does not guarantee [quality] learning and they note that a person may still be less than capable

even after extensive work experience. Students who are placed in apparently 'reputable' organisations may not achieve the intended learning outcomes (Keating 2003) if they are not involved in meaningful tasks. Lave and Wenger (1991) add that novices may face difficulties such as exploitation as a source of cheap labour or working on menial or dead-end tasks which preventing participation in more worthwhile mature practice activities.

*Affordances are not always benign*

A supportive work placement environment is essential for successful work placement. Eraut et al. (2002) note that the employer's and supervisor's approach to workplace integration may on occasion be 'laissez faire'. Lave and Wenger (1991) argue that the experience may be damaging:

> 'conditions that place newcomers in deeply adversarial relations with masters, bosses, or managers; in exhausting over-involvement in work; or in involuntary servitude rather than participation distort, partially or completely, the prospects for learning in practice (p. 64).'

Workplace economics or work pressures may result in line managers becoming reluctant to divert experienced staff from work to training tasks. Lave and Wenger (1991) describe Marshall's (1972) disturbing study of apprentice butchers who reported that many essential skills were not learned while on placement and that much of their school teaching was irrelevant to actual practice. The apprentices reported disillusion and a sense of marginalisation from more senior apprentices, journeymen and masters. They identify a further problem when masters prevent learning by acting as pedagogical authoritarians, viewing apprentices as novices who *'should be instructed'* rather than as participants within their community. On the other hand learning may not be realised if their attitude is perceived as permissive rather than positively supportive.

The attitudes of co-workers and managers are important factors in determining the quantity and quality of the learning experience in the workplace. Billett (2001) observes that the workplace environment is inherently competitive and that access to learning opportunities are frequently contested, He adds that participation opportunities are influenced by factors including employment standing and status. This suggests that

tensions and personality clashes may arise between novice graduates, who may be protective of, and jealously guard their position from placement students who they may see as a threat; thereby inhibiting the latter's access to learning activities. Keating (2003) suggests that this view may be alien to students who have come from college where knowledge is freely exchanged to a workplace where knowledge is often only transferred on a need to know basis. He comments that learning in the workplace rarely conforms to the ideal; the commercial and financial realities of work often preclude resources being allocated to wider learning issues.

*Isolation / alienation*

Keating (2003) comments that the workplace must appear strange to students experiencing work for the first time. He notes that undergraduate students typically have limited work experience, and their understanding of practice is often heavily influenced by impressions formed at college. These perceptions may be inaccurate and generate unrealistic expectations of the workplace. Students may, consequently, experience a form of culture shock where they may perceive themselves as inadequate and outsiders (Auburn 2007) performing low status tasks and yet being expected to be fully committed team-workers dedicated to achieving demanding goals frequently within very limited timeframes.

Placement may, therefore, involve a significant reappraisal of the nature of work. Brew (1993) notes that most corrections are fairly readily accommodated, however occasional fundamental misunderstanding may involve what she terms '*unlearning*' which '*necessitate a conceptual reordering of the whole or a part of one's world view* (p. 96).' Keating (2003) adds that this may be difficult for the student and may even cast doubt about their career choice.

*Inappropriate or unfair Assessment*

Successfully passing a programme is probably the most important issue for most students: '*the assessment is the curriculum as far as the students are concerned*' (Ramsden 1992 p. 187). Ross (1997) points out the danger of undermining the intended learning outcomes if inappropriate assessment strategies are applied. Auburn (2007),

likewise, questions whether the placement assessment methods are appropriate and the wisdom of an excessive focus by teachers on placement assessment following the students return to college. He recommends that:

- final year students should present their placement experiences, ideally to students in the pre-placement year;

- portfolios should be double marked on common agreed criteria;

- the panel of assessors should include members from outside the immediate school and/or representatives of the appropriate profession.

*Poor Debriefing*

According to Auburn (2007) the transition from the work placement back to the final year of college is an important element in ensuring positive outcomes for the work placement. He claims this aspect of the process is '*not consistently well managed*' and can leave students feeling alienated.

*Experiences are not exploited in final year*

The Dearing Report (1997) recommends that programmes should help students reflect upon their work experience so that they have the opportunity to integrate the practical experience with academic theory and '*to reflect upon, identify and consolidate the range of skills encountered*' (cited in Auburn 2007 p.120). Auburn reports instances of student feelings of frustration and alienation arising from a lack of recognition of the '*acquired powers*' they had developed, and lack of opportunity to apply the skills they had acquired during the placement because of the control exercised by the academic staff. He found that students had constructed a separation between work and college in which placement learning was perceived to have limited value in the academic setting. Walker and Boud (1994) are also critical of the perceived lack of connection between the rest of the course and the work placement. Keating (2003) reports similar experiences of students who were critical of the how the academic programme is taught and what its relevance is to work placement on return from placement. Little and Harvey (2006) reported that some students lost their appetite for academic work following their placement.

Sims et al. (2004) contend that students return to college with a fund of stories which may interest their classmates and lecturers and should be given the opportunity to voice these. They argue storytelling enables students to '*know what he thinks when he sees what he says*' (p. 483) and allows them to modify or correct initial statements or impressions. which it is suggested, is a powerful exemplar of Schön's process of 'reflection in action'. Keating (2003) supports this recommendation adding that students should have the opportunity for individual and group reflection and may conduct an audit of the skills developed during placement.

## Summary

This literature review has demonstrated that work placement is a complex and multi-faceted educational approach. The approach is underpinned by a wide range of overlapping learning theories which support the contention that effective learning is facilitated by active involvement in meaningful tasks carried out in authentic social contexts. The approach has been shown to be highly flexible in meeting the demands of a wide range of curricula designs within the further educational sector. The three-way relationship of academia with employers and students requires careful planning, implementation and resourcing if the approach is to be successful. The approach is regarded positively overall by the three central stakeholders who have reported tangible benefits from its operation. However, there remain a number of areas of concern which indicate that the approach is not without drawbacks. The benefits and drawbacks are summarised below.

| Stakeholder | Benefits | Drawbacks |
|---|---|---|
| Employers | Allows employers to vet potential permanent recruits<br><br>A cost effective staffing arrangement<br><br>Produces ready-to-work graduates | Resource inputs may be wasted<br><br>Unclear briefing<br><br>Poor student preparation<br><br>Student control issues |
| Educational Institutions | Strengthens beneficial links with industry<br><br>Informs curriculum design and development<br><br>Informs teaching practice | Resource intensive<br><br>Variable quality of placement<br><br>Cyclical industry demand<br><br>Inconsistent implementation and support |
| Students | Viewed as effective<br><br>Remuneration<br><br>Develops 'soft' key skills<br><br>Enhances employability<br><br>Inducts novices into their chosen career<br><br>Links theory with practice<br><br>Improves subsequent academic performance<br><br>May experience specialised / related career disciplines | Variable quality of placement.<br><br>Contested affordances / learning opportunities<br><br>Isolation / alienation<br><br>Inappropriate assessment<br><br>Poor debriefing<br><br>Failure to capitalise on learning |

Table 1 Benefits and Drawbacks of Work-place Learning Approaches

# CHAPTER FOUR

# THE RESEARCH DESIGN

## Introduction

This chapter sets out the rationale for the phenomenological methodology and data collection methods chosen to resolve the research question.

The research design process has been described in various ways. Crotty (1998) and Hart (2005) for instance, have described it as a form of scaffolding or framework to support the work. White (2000) has compared it to a detailed blueprint. These metaphors have a particular resonance in conducting educational research within a construction industry context.

The research design process covers a number of separate, but related, issues including the research aims, the methodology, the data collection techniques, the methods of data analysis and interpretation, and how all this fits in with the literature (White 2000). The literature emphasises that the research design should be carefully considered and that the researcher requires a sound understanding of the various elements to develop a consistent, appropriate and effective research strategy, and conduct a robust defence of the approach.

Creswell (2003) identifies three principle types of framework, or *research paradigms*: quantitative, qualitative and mixed methods approaches tabulated in Table 2. Quantitative research typically seeks to identify cause and effect relationships by testing theories and hypotheses. This paradigm has been the accepted approach of natural science for many generations and typically adopts post-positivist strategies including observations, measurements and numerical data to study phenomena (Picciano 2004). Qualitative research emerged in the second half of the twentieth century: it aims to describe, interpret and develop understandings of social behaviour. This type of research relies on interpretive methodologies, typically involving narrative description and text (Picciano 2004; Creswell 2003). Mixed method research is a recent development and is evolving rapidly. Its focus is pragmatic '*consequence-oriented, problem-centered, and pluralistic*'

(Creswell 2003 p.18). It may employ both quantitative and qualitative research approaches. The research approach depends on three related factors: the nature of the research problem, the researcher's background and the intended audience. This study involves exploring experiences and is, therefore, situated within the qualitative interpretivist research paradigm.

| Tend to or typically | Quantitative | Qualitative | Mixed Methods |
|---|---|---|---|
| Use these philosophical assumptions | Post-positivist knowledge claims | Constructivist / Advocacy / Participatory | Pragmatic knowledge claims |
| Employ these strategies | Surveys and Experiments | Phenomenology grounded theory, ethnography, case study & narrative | Sequential, concurrent and transformative |
| Employ these methods | Closed ended questions, predetermined approaches, numeric data | Open ended questions, emerging approaches, text or image data | Both open and closed ended questions, both emerging and predetermined approaches and both quantitative and qualitative data and analysis |

Table 2 Research Paradigms (Adapted from Creswell 2003)

## Methodology

Methodology refers to the strategy to the '*strategy, plan of action, process or design lying behind the choice and use of particular methods and linking the choice and use of methods to the desired outcomes*' (Crotty 1998 p. 3). Sikes refers to it as '*the theory of getting knowledge*' (2004 p.16). He views this as an issue of finding the best approach to obtain the evidence to resolve the research question. The methodology is primarily informed by the researcher's theoretical perspective and it, in turn, provides the rationale for selecting particular research methods.

Chapter Two has described the interpretivist theoretical perspective underpinning this study. This perspective is firmly aligned with a phenomenological qualitative research

methodology. Post-positivist and critical approaches are therefore not considered to be appropriate and are not examined here.

### Interpretive Research Methodologies

Blaxter et al. (2001) observe that there has been a strong shift towards the use of interpretivist strategies since the 1960s. Bartlett et al. (2001) characterise interpretivist studies as being '*small scale*' in focus, and being concerned with credibility and '*relatabilty of the findings*' rather than generalization. They argue that interpretivist researchers favour less formal '*softer*' and '*naturalistic*' approaches to data collection (p. 45). They cite Woods' observations that qualitative research focuses on '*natural settings . . . an interest in meanings, perspectives and understandings . . . an emphasis on process . . . and inductive analysis and grounded theory*' (pp. 45-46). Creswell (2007) adds that the researchers themselves are key instruments in the process. They gather the data, often from multiple sources and then interpret the data to develop multi-layered holistic accounts of the research topic or question.

A range of methodologies derive from the interpretivist perspective (Moustakas 1994; Crotty 1998; Bartlett et al. 2001; Merriam 2002; Creswell 2003; 2007) and include: phenomenological research, ethnography, grounded theory, case study, narrative research, heuristic inquiry, discourse analysis also referred to as hermeneutics.

### Phenomenological research

According to van Manen (1997) phenomenological research is the study and explication of phenomena; the '*lived experience . . . essences*' (p. 9). Phenomenological research advocates the study of direct experience (Cohen et al. 2000). Husserl, widely regarded as the pioneer (Crotty, 1998) and a pre-eminent theorist of phenomenology urged researchers '*back to the things!*' Schutz, described phenomenological methodology as '*a process of typification*' (quoted in Cohen et al. 2000 p. 23). van Manen describes '*the purpose of phenomenological reflection is to try to grasp the essential meaning of something*' (1997 p. 77). Phenomenology, therefore, focuses on describing participants' experience of a phenomenon they have in common. These experiences are concentrated to reveal their essence (Creswell 2007).

Phenomenological research differs from other forms qualitative research in that it aims to discover the essence of *shared* experiences (Creswell, 2007). Its focus is therefore on the group rather than the individual (narrative inquiry). The group typically shares certain characteristics but would be regarded as being disparate and would not be considered as sharing a common culture (ethnography). Phenomenology does not seek to develop theory or speculate about relationships of the participants to phenomenon (grounded theory). Likewise phenomenology does not set out to explore issues within the boundaries or context of a typical example (case study).

The processes involved in phenomenological research have been described by Moustakas (1994) as aiming to throw light on, and develop an understanding of, what an experience means for those involved. The process involves approaching the investigation with an open mind and studying the experience by gathering comprehensive (textural) descriptions, typically through open-ended discussion. The researcher reflects upon, and constructs a composite (structural) description of the experience from the analysis and interpretation of the descriptions. Phenomenological research employs a number of distinctive core concepts and procedures. Moustakas (1994) describes these as '*epoche*', '*phenomenological reduction*', '*imaginative variation*' and a '*synthesis of meanings and essences*'. The overall process may be compared to distillation.

van Manen's (1997) approach is less procedural than that of Moustakas but contains many common features. He views phenomenological research as the interplay of six related research activities. Researchers investigate an issue which is of importance to themselves in particular and others more generally. They investigate actual rather than conceptualised experience using the process of epoche or bracketing. They engage in reflection to allow the essential characteristics and themes of the experience to emerge. They carefully draft the descriptions of the experience which Manen he refers to as a '*poetizing*' activity and stresses that phenomenological research is a reflective activity which requires writing and rewriting as central to the process. Throughout the process the researcher maintains a strong orientation towards the fundamental question or notion and in particular its pedagogical rationale; this is not an approach that advocates scientific detachment. The researcher must also balance detailed evidence and relate it to the

whole. This involves explaining how each of the individual parts contributes towards the total.

The following section deals with how these strategies are to be achieved in practice.

## Research Methods

### *Measures of quality in research*

Yates (2004) asks the question '*what does good education research look like?*' She argues that good research contributes to knowledge, is useful in practice and is *technically good*. Technically good being: '*it did something very systematically, was 'tight and convincing; or was impressive in its design; was ingenious and creative in its method*' (p. 16). Systematic research requires the ability to demonstrate that the findings legitimately and validly answer the research questions (Opie 2004). The research methods are the means by which the findings are generated: these are the procedures and instruments used to gather and analyse data. The overriding consideration is selecting the most effective method of gathering the information required to answer the research question. As van Manen (1997) puts it:

> 'A research method is only a way of investigating certain kinds of questions. The questions themselves and the way one understands the questions are the important starting points, not the method as such (p. 1).'

Crotty (1998) argues that 'the great divide' between quantitative and qualitative research occurs at the level of methods. Both he and Creswell (2007) agree that the distinction is not impervious and that interpretive research has been carried out in an empirical, positivist manner. Regardless of which approach is chosen, effective research design requires the methods and data collection techniques to be '*appropriate*' and '*efficient*' (Hart 2005 p. 313).in order to achieve successful findings and conclusions. The criteria by which *quantitative* research has traditionally been evaluated have included measures of reliability and validity.

Reliability relates to '*the extent to which a test or procedure produces similar results under constant conditions on all occasions*' (Bell 2004 p.103). Cohen et al. (2000)

characterise reliability as consistency and replication '*over time, over instruments and over groups*' (p. 117). They state that reliability is concerned with measurement, precision and accuracy. In the context of phenomenological research the issue is whether different results would be obtained by interviewing a different sample group.

Validity centres on having: '*the primary meaning of measuring what you set out to measure*' (Browne and Knight 2002 p. 17). Joppe quoted in Golafshani (2003) describes the term as questioning whether the '*research instruments allow you to hit the 'bulls eye' of your research object*' (p. 599). Cohen et al. (2000) describe invalid research as '*worthless*', but nevertheless, claim that it is impossible for research to be 100 per cent valid. They view validity as a matter of degree rather than an absolute and argue that validity of quantitative research may be optimised by careful sampling, use of appropriate instrumentation and appropriate analytical treatment. They along with Merriam (2002) and Picciano (2004) note that the concept involves two overarching classifications: internal and external validity. Picciano (2004) describes internal validity as '*the extent to which findings can be interpreted accurately*' i.e. whether the research is both consistent and reasonable and *External validity refers to the extent to which results can be generalized to larger populations*' (p. 79). In the context of phenomenological interviews the issue is whether the questions asked validly answered the research objectives.

*Credibility*

Foddy (1993) notes that interpretivist research often faces criticism that the data may be '*of dubious validity and reliability*'. He refers to common criticisms of interpretivist research including selective reporting, the influence of the researcher on the respondents' behaviour; the low level of control over the selection of data for analysis; and/or the difficulty of replicating findings. He quotes Katz's observation that; '*Because of their emphasis on informal and flexible methods, qualitative field studies seem to make replication impossible*' (p.16).

Such criticisms prompted Lincoln and Guba (1985), to question '*How can an inquirer persuade his or her audiences (including self) that the findings of an inquiry are worth paying attention to, worth taking account of?*' (quoted in Scaife 2004 p.70). They argue

that the research should be trustworthy and identify credibility, transferability, dependability and confirmability as the elements of this trustworthiness. They claim that '*these four concepts are extensions, or adaptations, of the 'traditional' categories of internal validity, external validity, reliability and objectivity.*'

Robson (2002) observes that many qualitative researchers now prefer to use evaluative criteria such as credibility than reliability, validity and objectivity: terms which Golafshani (2003) notes are rooted in the positivist perspective. Robson argues that credibility is bound up with the trustworthiness of the research, particularly qualitative research and suggests that credibility refers to sufficiency of detail on the way the findings have been produced. This requires the researcher to demonstrate that the research has been designed to accurately identify and describe the phenomenon under investigation. It calls for a detailed specification of the methods used and the justification for their use.

Scaife (2004) notes that credibility is increased by checking the data by a process of 'triangulation' which Creswell and Millar define as '*a validity procedure where researchers search for convergence among multiple and different sources of information to form themes or categories in a study*' (quoted in Golafshani 2003 p. 604) and may be achieved by testing the object with different, independent researchers or data gathering processes. Quality is evaluated in terms of the depth of the data, the objectivity of the researcher and the extent of the data checking and triangulation. Scaife (2004) adds that data-gathering and fieldwork procedures are explained must be presented transparently to enable re-analysis; 'negative instances' are reported and biases are acknowledged; the relationships between claims and supporting evidence are clearly expressed and the researcher's primary data is distinguished from secondary data; interpretation is distinguished from description and procedures are used to check the quality of the data.

*Research interviews*

van Manen (1997) notes that descriptions of experience may be obtained in a number of ways and from a range of sources including written accounts, interviews, observation, literature, biography, journals and the like, and artwork. Indeed, phenomenological

research may include quantitative methods such as attitude measurement and ratings scales. Gillham (2000) comments that while questionnaires may be appropriate in certain circumstances, the information they generate is thin and does not allow exploration of the answers, nor are they suited to gathering subtle information. He concludes '*that complex human experiences are not things that people can glibly speak about in an organized fashion. A good deal of 'teasing out' is required and only skilled interviewing can do this* (p. 16).' This research, therefore, is based on one-to-one interviews in preference to focus groups and observation which were not considered to be practical in the current context.

Interviews are more than a conversation: they are formal; have a research agenda and are controlled to some degree (Gillham, 2000). He argues that they are appropriate where a small number of people are involved and are accessible; where extended responses are required to investigate meaning in depth and develop insight and understanding. He comments that a particular advantage of the interview is the richness and vividness of the information it produces. Interviews are particularly effective in gathering expert opinion.

Interviews are, however, time-consuming to administer. Gillham (2000) claims that a one hour interview may generate up to fifty hours work in developing, piloting, setting up, travelling to and from, transcribing and analysing the interview.

Moustakas (1994) advocates a seven step approach to conducting phenomenological interviews, illustrated in Figure 4, which he categorises into three separate stages: preparation, collection and analysis.
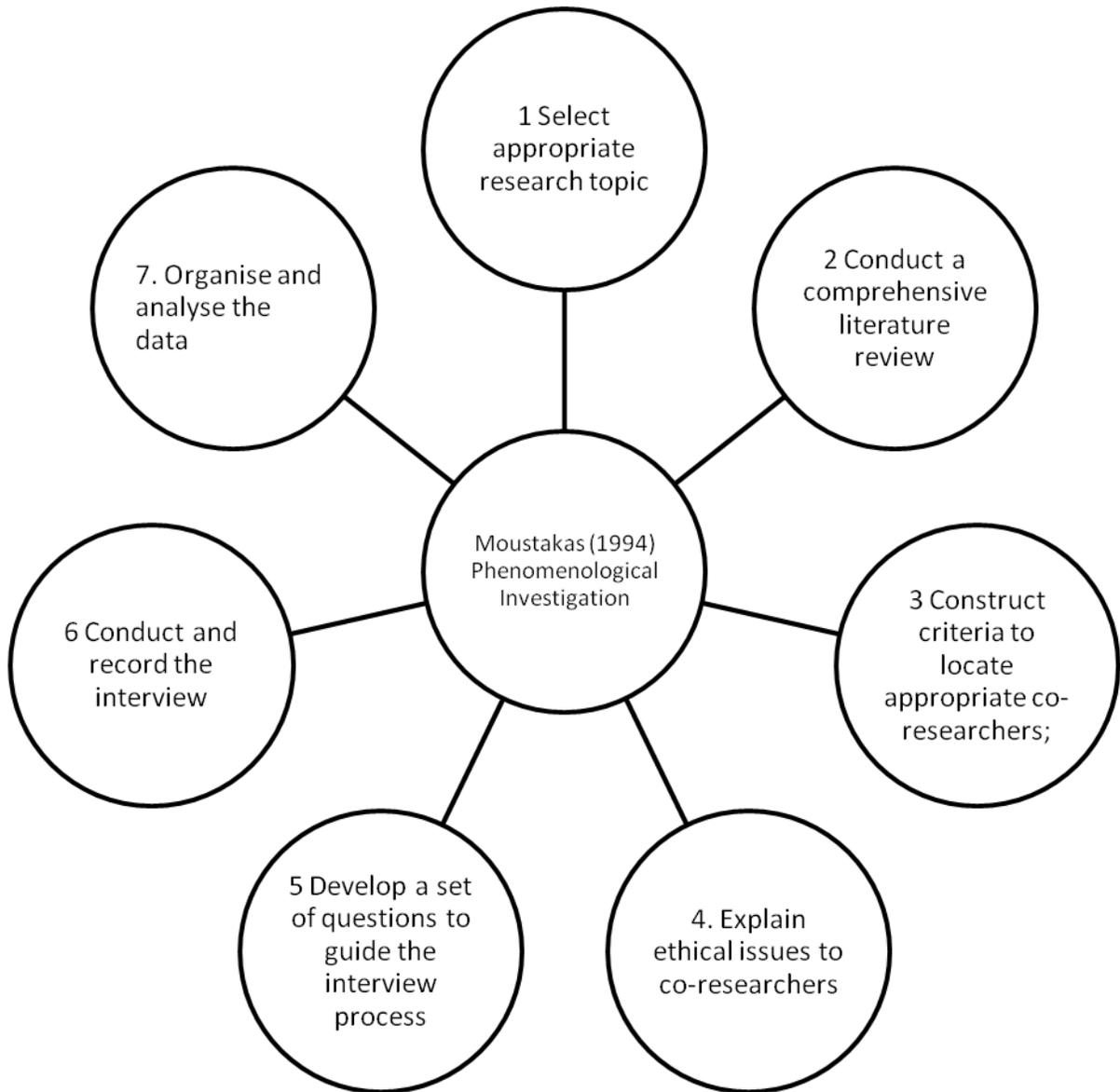
Figure 4 The Phenomenological Investigations Process (adapted from Moustakas 1994 pp. 103,104)

*Preparation*

Moustakas (1994) describes the preparation phase as involving:

1. discovering a topic and question rooted in autobiographical meanings and values, as well as involving social meanings and significance;

2. conducting a comprehensive review of the professional and research literature;

3. constructing a set of criteria to locate appropriate co-researchers and

4. providing co-researchers with instructions on the nature and purpose of the investigation, and developing an agreement that includes obtaining informed consent, insuring confidentiality, and delineating the responsibilities of the primary researcher and research participant, consistent with ethical principles of research questions.

This research topic is consistent with Moustakas' first step above and incorporates Creswell's (2007) advice that it should explore several persons' shared experience of the phenomenon. It also adopts van Manen's (1997), advice that pedagogical issues should inform the research question.

Step Two the literature review, has been conducted in Chapter Three.

Step Three involves the selection of key informants or '*co-researchers*' for interview, Moustakas (1994) holds that there are no set rules for choosing the number or level of expertise of the participants, but they must be experienced in the phenomenon and have real interest in engaging in an intense process. A sufficient sample should also be selected to provide credible findings and provide sufficient evidence to resolve the research question.

This study is based on a pilot and four interviews with participants who have employed a sufficient number of both quantity surveying placement students and full-time graduates, to be able to form an opinion as to the effectiveness of the two approaches. The co-participants are drawn from senior management of the larger quantity surveying practices and contracting organisations. Their experience is sufficient to avoid the possibility that individual performance has exerted undue influence on their experience. The participant's profiles are detailed in Chapter Five.

Step Four requires the research to be conducted within an ethical framework. This research complies with the ethics statement included in this thesis and is based on the principals of the *Revised Ethical Guidelines for Educational Research* (BERA 2004). The research aspires to van Manen's (1997) model that the research should be grounded in '*a sense of the pedagogic Good*' (p. 6)

The key ethical issues identified were: informed consent, confidentiality, voluntary participation, access to data, validation of data and reciprocity. These were addressed by sending the participants a letter containing a Request for Consent Form, an Information Sheet explaining the purpose of the research, the extent of participants' involvement, the handling and storage of data, assurances regarding confidentiality and explaining their right to withdraw from the research at any stage.

*Data collection*

Phenomenology requires rigorous data collection and is usually carried out through interview. The interview process is an interactive (Moustakas 1994) and in-depth process (Creswell 2007).

This research comprised one pilot and four semi-structured, one-to-one recorded interviews in which the researcher has a clear list of topics to be addressed. The aim was to evoke a comprehensive account of the participant's experience (Moustakas 1994) of quantity surveying placement and how the context influenced that experience (Creswell 2007).

Gillham (2000) recommends that a pilot interview is conducted on a neutral who has similar qualities to the panel to be interviewed. This piloting process was carried with the Managing Director of a small quantity surveying practice. The process validated the time scale required and identified productive, unclear and redundant questions. It also raised issues which allowed subsequent interviews to be managed more effectively and facilitated the preparation a list of prepared interview topics which was circulated to the participants before the interview.

A particular issue in this research is the researcher's own particular background. He has previously managed a number of placement students and have therefore has experienced the approach at first hand. Phenomenological interviewing deals with this issue through the technique of ***Epoche.*** This term derives from the Greek and means to abstain or stay away from. The process requires researchers to set aside previously held understandings, associations, opinions and suppositions about the subject. The aim is to minimise prejudice or bias, so that the phenomenon is approached with a fresh eye. No position is

taken and each quality has equal value. Epoche challenges the researcher to allow the phenomenon to disclose itself, as it stands, as if for the first time (Moustakas 1994). van Manen (1997) refers to this process of suspension as *bracketing*, an arithmetical term, first used by Husserl. van Manen suggests that we often know too much about the phenomenon under investigation and recommends that researchers make explicit their assumption and theories, in order to minimise the risk of these biases resurfacing during the investigation. Creswell (2007) refers to epoche/bracketing as a philosophy without suppositions.

The person-to-person interviews were held in the participants' offices and were recorded. The interviewees were informed of the purpose of research and asked whether they had other immediate commitments such as meetings to attend prior to recording. The length of the interviews ranged between forty minutes to one hour.

*Data analysis*

The aim of phenomenological research is to develop composite '*textural*' and '*structural*' description which reveal essences (Moustakas 1994). Creswell (2007) notes the importance of identifying 'significant statements' that explain the experience of the phenomenon and draw out themes to provide rich descriptions. Moustakas (1994) refers to Giorgi's five step phenomenological data analysis process which is represented in Figure 4.2. This process has formed the basis for the analysis carried out in this research
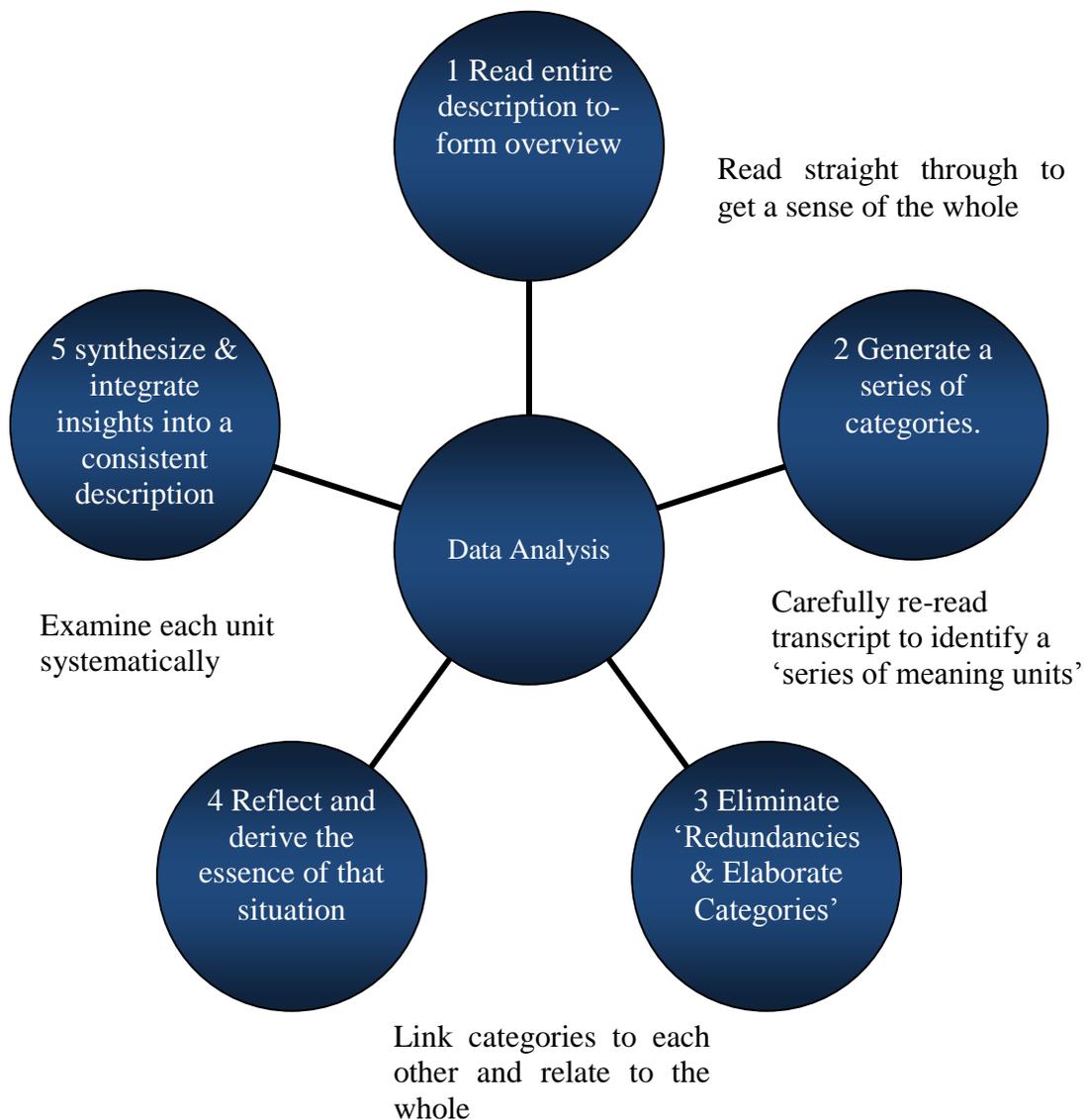
Read straight through to
get a sense of the whole

1 Read entire
description to-
form overview

5 synthesize &
integrate
insights into a
consistent
description

2 Generate a
series of
categories.

Data Analysis

Examine each unit
systematically

Carefully re-read
transcript to identify a
'series of meaning units'

4 Reflect and
derive the
essence of that
situation

3 Eliminate
'Redundancies
& Elaborate
Categories'

Link categories to each
other and relate to the
whole

Figure 5 The Phenomenological Data Analysis Process (adapted from Giogi in Moustakas 1994 pp.13&14)

The preliminary procedure in the analysis involved transcribing the interviews verbatim. This process, while painstaking, developed a deep familiarity with the materials. The individual interviews were then condensed by concentrating on the significant statements and removing irrelevant content. This procedure permitted the data to be categorized into the 'meaningful units' described by Giorgi at Step Two of the process illustrated in Figure 4.3 above. The individual interview content was then transferred into a combined findings file. This process enabled the individual participants' experiences to be

compared and contrasted with each other, thereby allowing common themes to emerge. This process further concentrated the data and elaborated the argument by eliminating overlapping and weak content and accords with Step Three of Giorgi's model above. The combination and linking of the individuals experience highlighted significant elements of various participants' experiences of the work placement process. This process prepared the ground for the discussion in Chapter Six which revealed the essential characteristics of the work placement process.

The above procedure accords with Moustakas' (1994) approach to data analysis which also informed this research and comprises four stages.

*Phenomenological Reduction* which derives from the Latin *reducere,* to lead back, to the source of the experience and aiming to describe '*in textural language just what one sees*' (Moustakas 1994 p. 90). from as many viewpoints ('*horizons'*) as possible, in its totality, and in a fresh and open way. The aim is to identify significant statements. He describes this as a process of studying the interview transcripts and organising the data. Initially every statement is granted equal value (*horizonalising*). Irrelevant, overlapping or repetitive statements are removed, leaving only the textural meanings and invariant constituents of the phenomenon. These '*meaning or meaning units'* are listed, clustered and organised into themes from which a coherent description of the phenomenon is derived. These individual descriptions of the experience are referred to as '*textural descriptions*.' The researcher will aim to present vivid examples connected with the experience.

van Manen refers to this process as '*investigating experience as we live it . . . using personal experience as the starting point* (1997 pp. 52-53).' He recommends describing the experience in direct experiential terms without providing explanations or interpretations of it. He refers to Buytendijk's (n.d.) claim that phenomenology is '*the science of examples*' (p. 121) in which individual descriptions are only one example and that a phenomenological description is composed of examples.

*Imaginative Variation* seeks to develop possible meanings by considering the phenomenon from a variety of perspectives (Moustakas 1994). He argues that the act of

describing a phenomenon may suggest, and point to, something else which is not apparent, or is concealed, which in turn, may lead to discovering important aspects of the phenomenon. Imaginative variation, therefore, develops '*structural descriptions*' of the experience by identifying underlying themes and factors which explain the significance of the phenomenon. These descriptions '*account for what is being experienced*' (p. 98). The emphasis is towards generating meanings and essences rather than establishing facts and measurable qualities.

van Manen (1997) discusses the reflective nature of this process and notes that varying the examples reveals the invariant aspects of the phenomenon. He describes this process as uncovering thematic aspects, which make sense of the experience. This process enables the researcher to grasp the essential meaning of the thing itself. This process has categorisation as its essential procedure.

*Synthesis of Meanings and Essences* is essentially a process of interpretation and involves composing a composite description of the essence of the phenomenon from the individual textural and structural descriptions. The concept of essence means the features that are common or universal, the condition or quality without which a thing would not be what it is. Moustakas notes that the essences of any experience are never totally exhausted. van Manen (1997) argues that a good description of the essence of something reveals the structure of the experience so that its nature and significance can be grasped in a hitherto unseen way.

## Summary

The research design developed for this project is interpretivist and qualitative in nature. It adopts phenomenology as the methodology and has gathered the data by means of a series of interviews. The research preparation, collection and analysis process was primarily concerned with gathering rich and deep data. This procedures involved in implementing this research was guided by key theorists writing in the phenomenological research field, including Moustakas (1994) van Manen (1997) The aim is to provide credible findings while recognizing these are not exhaustive due to the limitations of the research.

# CHAPTER FIVE

# PRESENTATION OF FINDINGS

The findings set out below were generated from a series of one pilot and four semi-structured interviews conducted during March and April 2009.

## Participant profile

The participants are drawn from senior management of quantity surveying practices and a construction company based in Dublin. Two of the participants are Managing Directors of their respective practices, one is a Regional Director, another is a partner in the practice and one is the Director of Surveying within the company. The participants are all Chartered Quantity Surveyors with one of the participants being a Past President of the SCS and another being a Past President of the Quantity Surveying Division of the SCS. They represent the two largest quantity surveying practices in the State, one of the top five contracting organisations, an established and well respected quantity surveying practice and a more recently established small multi-disciplinary practice which originated from the Irish branch of a prominent UK surveying and project management practice.

The participant organisations employ between 5 and 500 staff. All participants had experience of employing sandwich year placement students. The three largest companies had considerable experience of employing sandwich students, typically employing between two to five students per annum, with one practice having employed 27 students between 2001 to 2007. Typically the larger organisations recruit graduates from a variety of sources in addition to placement students. The contracting company also placed a number of students on a foster firm scheme, organised by the DIT and the Young Chartered Surveyors, to provide work experience for full time students.

## General Issues

### *Recruitment Arrangements*

There was mixed success amongst the participant companies in recruiting placement students. It emerged that there was keen competition for the students and, in general terms, the smaller practices experienced difficulties in securing a regular flow of placement students. Participant C, for example, explained that they had recruited only one placement student during the previous five years. '*The reason for that is that in the time of the boom, you couldn't get them. You know, that was the problem, you just couldn't get them, we would have taken them but you couldn't get them. The recruitment became a difficulty*, [and] *a waste of time*.'

Employers, therefore, needed to be both active and early to secure the students. '*During the boom times it was essential to get people interested in your company* [Participant B].' Contacts and links with the College were found to provide important advantages in this respect. The two large quantity surveying practices and the construction company had established strong links with the College. One of the practices currently sponsors an annual prize for the best final year student. The other practice has a former staff member teaching on the course. One of the participants was a member of the original validation committee which established the course and whose company had organised a number of talks and seminars in the College. These contacts enabled these practices to establish a strong profile among the students and enabled them to identify and canvas the better candidates. Participant D noted that the students, themselves, started to make direct approaches once it became known that the company offered placements.

Typically the larger companies would notify the College of the number of available vacancies, and they in turn would notify the students. One participant noted that their company targeted a particular group of students who had gained qualifications from Cork IT before joining the sandwich course at Limerick. He noted that the College assisted them by drawing up a list of these students. Company representative would then travel to Limerick to introduce their companies and to recruit and interview prospects.

The two smaller practices had both originally been approached by the College and were invited to their open day. The College subsequently sent them a number of CVs for consideration. This arrangement was effective initially, but as the industry expanded and demand for students outstripped supply, they found this process increasingly less worthwhile, as the students had already been made offers. Participant C commented that '*the other fellows had snapped them up*.' Participant A felt that the open day was more focussed on graduates than on placement students. These companies therefore made contact with students through informal arrangements. Participant C explained that occasionally students would call seeking help with their projects and this provided the initial contact. Practice 'A' employed two sandwich students following contact from a personal friend. Participant E reported that their company had recruited a number of students who had started with contractors and then decided to change to consultancy after a few months.

Although the length of the placements were specified as being for the college year; the participants reported that many of the students started directly after completing their second year, in May, and some stayed on over the following summer period. In effect this becomes a sixteen month placement. The participants were very positive about this. '*If they stayed with you they're there for nearly a year and a half which is fantastic* [Participant D].'

The placements were paid. Wages within the smaller practices were considered adequate to cover reasonable living and social expenses; '*something like the apprentice rate* [Participant A].' The larger offices had salary structures with comparable remuneration to that of novice graduates rates.

### *Employer Expectations*

The participants expect students to understand and be able to carry out basic measurement and office administration tasks. They were expected to be useful and productive. For example, Participant A expected them to help with measurement under the supervision of a senior QS. '*Their bottom line would be coalface measurement. That's what I saw as their function; under supervision*.' Participant D hoped that they

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'*could walk straight in and know what they are going to be doing*' but further reflected: '*and of course, . . . that is an over expectation.*' Participants B and E felt they should also be able for simpler elements of an estimate or cost plan. Participant B expressed the employers' general expectations:

> '*you'd expect that somebody who comes into you would be able to give you floor finishes and would be . . . conversant* [with that] *and you'd like to think that when he has measured the floor finishes that he'd cross check them with the building areas. So there's a bit of common sense there.*'

Participant E expected that by the end of the placement the student would be able to produce a valuation or a cost plan and price work, subject to checking.

Students were expected to have basic IT skills and be comfortable with spreadsheet applications. Ideally they would know about applied quantity surveying software, but this was not seen as an essential requirement as the company would train them in any case [Participant B]. The students were not expected to be familiar with contract procedures '*but over the course of a year they would develop into that* [Participant E].'

Participant C indicated that he seeks the same qualities in a placement student as he would in a graduate; '*somebody, who with a bit of help and supervision could get stuck into the measurement and then progress . . . along the APC route. Measurement it's the key. I mean everybody does it everywhere.*'

All the participants expected the students to be productive. Participant B had this to say: '*We do expect them to earn their keep. . . They're not there just to be watching us work; they're actually there to work alongside us.*'

### Student Preparation

In general the participants found the students to be well prepared technically. '*My impression was that they knew the technical rules of measurement* [Participant A].' He added '*I think by and large if you asked them to do something or if you showed them how to do something, you showed them once.*' . . they quickly assimilated the '*ins and outs of how to deal with a bunch of drawings and how to coordinate between the Architects and*

*the Engineers drawings.'* This view is supported by Participant C, who reported that they *'were very well grounded in it* [measurement] . . . they *were well able to step in and do the business.'*

Participant A found the students to be well adjusted for the workplace; '*I think they understood that they were going into a work environment . . . and I think they took the opportunity to learn, behave themselves if you like. But I think they took it at a serious level.'* Participant B, however, reported that some placement students, and indeed graduates, had never worked before and experienced major difficulties during this transition. He advocated that relevant work experience should be essential throughout third level education.

> '*We have had occasions [when] people have come in here as graduates and decided after a week that they didn't want to be quantity surveyors. They didn't want this or they didn't like the office environment.'*

Returning to this point he added:

> '*That's disastrous for everybody. It just not the college's or our particular profession, it's the whole life thing. That anybody having spent that much time in education and not having had opportunities throughout that period, to have dipped their toes for short periods of time on the work environment, whatever it is, is in reality is insane.'*

### Awareness of Learning Outcomes

There was some inconsistency among the participants regarding their awareness of the intended learning outcomes of the sandwich placement.

Participant C reported that the College was clear about what was expected; '*it was very much set out what they had to do . . . experience on the various APC areas*.' Some of the other participants were unclear or confused about the outcomes and appear to have received little formal guidance and, in general, formulated their own agenda for the students. *'You just got on with it* [Participant D].*'* He was somewhat critical of this aspect of the process and felt that the placement would benefit from a clearer structure. Later he

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commented that the company itself '*in their human resources management plan, they should be put down in black and white, what you do when you take on a sandwich course candidate.*'

The emerging general impression among the participants was that their function was to provide 'good experience' and to ensure that the students were not being given meaningless work. '*That they were getting reasonable experience, that they weren't, out buying milk and papers everyday. That they were learning* [Participant E].' Participant B thought this involved developing the student's basic training and '*letting them see the way the thing works in practice out in the world, and the way we do business . . . we are giving them a snapshot of what happens in their yearly working life . . . as a QS.*' He later remarked that '*feedback is always necessary, and that colleges and employers need to talk to each other and be aware of what each other is perceived to be and the needs.*'

## The Placement

### Induction

The process of inducting the students differed between companies and its nature was largely influenced by the size of the organisation. In the smaller practices the process was very informal and typically involved making introductions. Participant C described it as: '*they were brought around to all the people, and then somebody would set them a task, and see how somebody else did it and gradually integrate them . . . and try and involve them as much as you could.*'

In the larger practices this process became more formal, for instance Participant B's company induction process is arranged by the HR manager and explains the company organisation and structure and gives '*people a flavour of what they are dealing with.*' The placements are then allocated to a senior surveyor to look after them, '*because there is so much to take in.*' Participant E's company induction lasts most of the student's first day. They meet staff including senior surveyors and other sandwich students. They explain the company ethos, how the computers and quality systems work. '*They get a bit out of that . . . it gives them a sort of a placement.*'

Site induction involves familiarising the students with the job and how things are done. Students would typically study the project drawings, walk the site, sit in at site meetings, listen to what was happening and be given filing tasks; '*pulling the thing together.*' Initially they might be given simple tasks like '*crosscheck[ing] the drawings that come in against existing drawings and see if there are any variations*.' Participant D added that some placement students have previous site experience and '*know their way around a site*.' Health and safety induction is a particular issue on their first day on site. The students are encouraged to become involved in heath and safety matters. '*There's none of this 'I'm a surveyor I don't do that.*'

### Bedding In

There was a common approach amongst all the practices to bedding in the students. The students are allocated to a team and work as assistants to a senior/project surveyor, or a site manager. Participant E added that the students' progress and performance are monitored during the first couple of weeks to see how they're doing and noted that they are used to studying and tend to be quite pro-active. '*They are happy to do it and they're happy to learn and they're happy to listen, they're used to being in a teaching environment.*' Participant E also noted that they would generally employ a graduate and a final year placement student each year to work as part the same team under the supervision of an associate director. While they may not necessarily be working on the same job all the time, they would be working together and ideally they would support each other.

### Tasks

In general the students were actively involved in the typical day-to-day 'traditional' activities of a quantity surveying or contracting organisation. There appeared to be a strong emphasis amongst the consultancy practices on involving the students in pre-contract work and tender documentation, particularly in preparing bills of quantities. They also assisted in providing early cost advice and final account support, becoming involved in variation accounts, remeasurement and cost plans. '*Their core function was to churn out numbers of quantities, basically, for whatever function that was required* [Participant A].*'

Participant B stated that '*We treat them very much as apprentice QSs.*' They are shown how the work is done in terms of annotations, traceability and so on by the other team members. He added that the amount and difficulty of the tasks they are given is matched to their ability and enthusiasm. '*We'll test their knowledge, they won't be left out on a limb, or anything like that. . . If they are very strong and ambitious they will feed more into the system. If they want to take it easy they won't get themselves involved as much and therefore you can't involve them as much. So it's a two-way street really.*'

Participant C noted that there was a gradual introduction to more complex tasks: '*different people progress at different rates.*' He explained that, initially, they would be given simple, routine tasks such as calculating gross floor areas, before progressing to doing approximate quantities, sections of bills of quantities and site measurements. '*You got a feel for how good they were but they seemed, generally speaking, very receptive towards it.*' Their work would be checked and '*they'd be asked to do filing and they'd be told to read the stuff they're filing, so that they could get something out of it.*' Participant E noted that the better students would carry out some of the main technical checks. Occasionally they might work on the '*quality systems, paperwork, filing, archive . . . [postman] . . . But they would be pretty much thrown into churning out real work.*' Participant B noted that they might be allowed to do a standard recommendation letter. '*- it just gets them used to the process.*'

Site based students were expected to measure work, particularly subcontractor remeasures and help prepare subcontractor tender packages. Initially they would help the QS with the valuation work by calculating subcontractor valuations and then include these figures in the main client valuation. '*After a few months they're probably doing the whole valuation when they know what they are talking about.*' They were also expected to be able to do simple correspondence tasks such as sending and enclosing material in a professional manner.

### *Meetings*

The participants agreed that the students *should* occasionally accompany surveyors as observers to site and design team meetings to get the best out of the experience: . . . '*to let*

*them see what's happening. . . and to get the environment of the way the people deal with the scenario, the interaction of all the different professions* [Participant B].' Participant C added that '*if they were involved in doing a bill. . . or a cost plan on a job we'd bring them along to meetings so they could understand the way that things worked or didn't work as the case may be*.' Participant E, however, was more reluctant to bring them to '*design team meetings in front of an architect or a client where they might be asked a more. . . technical question that's beyond them*.' Participant B also added a proviso that he would have to be satisfied that the student would represent the company well and would be conversant and confident with the matters under discussion before letting them go to meetings.

Site based students would normally attend internal subcontractor meetings before the formal site meetings with the consultants. They may eventually be in taking minutes of the internal meetings.

### *Employer Supervision*

The participant companies all operated quality assurance systems and closely supervised the student, making sure they were not '*let out of their depth*.' In most cases, the students were working in the same room as the other members of their team and their work was checked on the spot by the team leader. The consultancy based students were not allowed to go to site unaccompanied. Participant A had this to say:

> '*It is up to the Employer to keep an eye on them. It's plain and simple . . . if you set them loose . . . there's a good 50/50 chance that they go the wrong way; so would anybody else. . . I would have thought that if somebody on a sandwich course . . . found themselves in trouble it is because they weren't supervised properly, quite frankly.* Later adding: '*They didn't tend to go off on solo runs.* [otherwise] - *they got the library* [discipline] *call.*'

Participant C added '*OK, they mightn't get [the experience] in a responsible position but they'd certainly get it . . . They wouldn't get it where . . . they could do some harm with it. But we would give it to them, we're very conscious of that*.' Participant E added that their

company tries to pair placement students to the '*naturally good trainers*' and mentors within the company.

Placement students employed by the larger practices typically attend weekly team review meetings and have to report progress on their tasks and set new tasks for the coming week. '*It's all just a learning process and its good for them* [Participant B].'

### *College supervision*

The College monitored the students' progress by means of a six-month review. Participant C recalled that the tutor would first review progress privately with the student and then meet the employer. The student was then brought back in and they discussed the placement and whether the student was getting the right experience.

The process involved signing off a schedule of the experience and completing a questionnaire/evaluation form which had room for comments. Participant D felt that the questionnaire '*was rudimentary enough*' and '*could have been more detailed.*' Participant E noted it contained questions about the student's attitude and punctuality and commented that it was a way of ensuring that the employers' expectations were being met. It also provided an opportunity to raise issues with the tutor.

Participant A found that the background presence of the college, in itself, was a factor ensuring that the students took the placement seriously. '*The fact that the College were keeping an eye on what was going on; that brought . . . a certain level of manners on the whole process.*' Participant B commented that the College involvement was not intrusive and he had never needed to discuss issues with the College, or vice versa. He felt that this was probably due to College's familiarity with the company and its training and development approach. He added '*I think they appreciate that.*'

Participant B noted that the students periodically return to College during the placement to give progress reports to their tutors and he had reviewed these reports.

*SCS Membership*

The participants all advocated that the placement students should apply for SCS membership and they facilitated this process by allocating supervisors, planning the probationers training, setting targets, monitoring and reviewing progress, and signing their diaries and log books to '*make sure that they get their competencies sorted out.*' Participant C continued that this '*would be practically a requirement of employment.*'

Participant B's practice has a dedicated quality control manager, one of whose functions is to ensure that SCS probationers, including placement students, get the necessary experience. The student and the manager collaborate in designing a plan to acquire the competencies and this is implemented by student's team leader. '*They are on the road to becoming chartered, because certainly, that is something we push them to achieve.*' Likewise Participant E's company has '*an active APC group and there is a graduate training programme that we would include them on. So, . . . twice a year we do phone-in meetings, where they would all get together and talk about contract.*' These sessions last about an hour and deal with specific practice topics. They are arranged at times when the all the APC candidates are available and will not be disturbed.

Participant E commented that students aim to gain professional qualifications very quickly but questioned whether a student who had only completed a sandwich year and one year's post graduate experience would be ready for the APC. '*So we would have encouraged them to register and we would have kept diaries and everything, but they wouldn't necessarily be thrown straight into that.*'

The contracting company experienced problems in preparing students for chartered membership. While the company expected recruits to apply and complete the APC, he explained that most do not succeed, because '*they're out on site somewhere, you might lose track of the guys.*' He added that this loss of contact was not necessarily related to physical distance but because of complications in making personal contact with their supervisor. He noted the there were also particular cultural problems: '*I think when they go working for builders they get into a huge commercial mode*' and the lure of more money from other employers becomes more attractive than personal development and

'*the chance of ever doing the APC is gone. . . Very few of them have that sort of vision.*'
He added that this was often a cause for regret at a later stage.

## Advantages and Disadvantages

### *Staffing*

The participants all agreed on the convenience of this arrangement in recruiting staff. This was particularly evident amongst the smaller practices.

One of the small practitioners noted the flexibility the arrangement offered to a small practice in terms of basic staffing. '*If you were busy and you knew that you were going to be busy for twelve months on a particular project and that you would need a pair of hands. It suited us to do it that way instead of employing someone full time.*' He saw particular benefits in the temporary nature of the arrangement in not having '*the headache of* [employing] *the graduate, keeping them employed year in year out.*' Summarising his view on the benefits of sandwich employment he said '*it certainly assisted us, it gave us what we needed.*' The other small practitioner agreed with these views. '*Well, we got somebody who could measure at the coalface.*' He described their contribution as '*very useful*' and '*valuable*' and regarded them as '*a staff member, not just an encumbrance.*' This practice found them particularly useful in dealing with computer problems and issues '*they could tell you one bit of software was* [rubbish] *and another bit of software was good. . . . We were always delighted to have them and they integrated well.*'

Participants A and E also commented on the value for money offered by placement students. '*Let's be honest they weren't expensive. . . .* [and] *They are cheaper than the graduate, to be honest. . . . So you got a year's good value out of them.*'

### *Vetting employees*

The ability to vet students and build up a relationship with them as potential permanent staff was seen as a particularly beneficial aspect of the placement process. All the participants stated that if they were happy with the student's performance, they would try to persuade him/her to return the following year. '*If they worked out, they would still go*

*back to college, but you could go and chase them and get them back and we did have people come back* [Participant A].' Participant C echoed this view: '*we got a few of them back. . . . If they were any way good, we would offer them a job at the end of the period and chase them then throughout the year.*'

Participant D was even more positive and regarded this aspect as the best feature about the placement arrangement '*I mean if he's showing promise, you're going to go out of your way to try and take him on when he's finished.*' He added that the company had made modest contributions towards the student's final year expenses. Good performers were told they were welcome back following graduation and this appealed to the student who knew the environment they were returning to. Participant E said it was a big advantage if the student returned after they graduated, because they slotted straight in.

> '*So, within a couple of weeks they were back, maybe on the same project or they'd be back in the same team and they hit the ground running. So you got much more out of them for that initial first year after graduation. . . . I think the secret to all these things [is] if you've got the guy bedded in and you look after him, he won't move, or he finds it hard to move, because he likes the job and he likes the people he's working with.*'

### Integration into office

The participants experienced few problems integrating the placement students into their organisations, and reported little frustration in managing the placement students. '*I certainly didn't come across any bad vibes from anybody who was supervising them. . . I can't recall any particular instance of where somebody said 'what have I got here'* [Participant A].' Participant D suggested that many of the sandwich students came from communities with strong building backgrounds. They '*knew what building was all about*' and were '*Salt-of-the-Earth type fellows, without preconceptions of themselves.*' He added that the students' supervisors would typically look out for them, and make sure they were being treated properly.

Participant C, however, spoke about one particular bad experience '*I don't think he understood what he was doing, or why he was doing it. . . . It was unfortunate for the*

*poor fellow . . . his progress reports weren't great and his tutor expected that his progress reports wouldn't be great. . . . It was just one of those things.'*

### *Returning Placement Students*

The participants all viewed returning placement graduates as a significant benefit of the process, both in terms of familiarity with company procedure and personnel, and obtaining value for money.

Participant A felt that the students were '*were probably more comfortable . . . because they were coming into an environment that they had been in before . . . [with] people they had met before. So that made life . . . easier for them and . . . would certainly . . . have given the impression of being maturer . . . which they were! They were . . . two years older from the day that they started first.*' Participant B added that the returning placement students also '*has a slight, advantage for the first few months, he's a slightly easier time, if you like.*'

Participant E commented '*and you got really good value out of them when they came back. Because they came back at the same sort of salary as a graduate, but they had a years experience and managed much faster and they were much more productive.*'

Participant B, referred to the student's continuing development and ability to reflect on the workplace experience in their final year. '*They do their thesis, they close out a lot of things, and they would have time to reflect on what they saw for the twelve months. . . . They would have moved on.*'

### *Problems*

The participants reported a number of difficulties or issues, but they did not consider these to be major problems. Reported difficulties included:

- the sense of missing an opportunity [Participants B and E],

- frustration at losing potentially promising employees [Participants D and E],

- instances of individuals who did not pull their weight [Participants D and E],

- individuals who were indifferent to the placement process, either because of a short term viewpoint, or the ready availability of employment elsewhere [Participant E &D] and

- occasional students with misguided impressions of the profession who became disillusioned with or did not like the work. [Participants B, C and E].

Regarding lost opportunities, Participant B suggested that this might occur, either because the team leader had too little time to devote to the student, or that the student didn't get fully involved. He added that '*It's very disappointing if you lose people. . . . It's a problem for both sides . . . the opportunity has been missed by both sides.*' Participant E suggested this might arise if there was a personality clash with their supervisor.

Participant D raised a particular issue regarding retaining students. He commented that his company's surveyors are practically all site based, and that they encounter frequent instances of placement students and graduate surveyors becoming interested in the more dynamic site management and project management roles, '*to sit*[ting] *in an office surrounded by lever arch files full of figures. So, to be honest, we tend to lose them when that happens.*' He added that '*more than fifty percent of them don't become quantity surveyor, they become project managers . . . and site managers.*'

Other than the particular cases referred to above, the participants reported no further instances of staff frustration or tensions from employing placement students. Participant D added that '*it's down to personal relationships.*' He was the most positive contributor, and in summarising the approach stated: '*I'd hate to say there are no problems. I don't think there was, to be honest.*'

### *Controlling the students*

The participants reported no particular difficulties in controlling placement students. Participant B felt that it was the '*same as any young staff.*' He considered that the prospect of future employment is an effective incentive to control indiscipline. He added that a reminder that they are '*not in college any more. Things do matter here. This is real*

*life stuff.*' may be required. He referred to punctuality, or where things are not going according to plan, as examples: '*We would talk to them or bring them on line, because it's part of the learning curve. . . . We expect everyone to conform to the way we run a business.*' He said however that this needed to be balanced by an awareness that the students are '*in a transition period*', [and] *. . . only partly through their educational process.*' Participant C mentioned that '*they'd conform to the office code, and dress code*' and remarked positively on their presentable appearance and ability to communicate well.

## Appraisal

### General Appraisal

The participants consider that the placement process is worthwhile [Participant B] and beneficial, to both their own organisations and the students. '*I think they get something out of it, and we get something out of it too* [Participant E].' The participants recognise that its' success, however, depends largely on the individual, and have a high regard for placement students: '*certainly as good as getting a graduate* [Participant A].' Participant B considers that it is an effective '*mechanism of employing the type of people you want.*' and provides an opportunity to evaluate them on the basis of '*a twelve month interview rather than a single once off. We would have taken them on very regularly and, to be honest with you, all of them turned out to be excellent candidates.*'

### Graduate Recruitment

The participants, in general, have similar expectations of sandwich course and full time graduates' capabilities, and consider both to be carrying out a similar process. There was a consensus that there was a six month time lag with full time graduates while they acquired the basic skills, which the sandwich course students had developed during their placement. Participant B added that: '*within twelve months . . . they are all doing the same quality of work* [and] *ruthlessly competing with each other . . . who are the weaker and who are the stronger people through the system.*'

Participant D suggested that there may be an impression that the full time graduate '*is fully qualified and he can do everything, which of course, he can't.*' and remarked that,

perhaps, they '*should expect more*' from graduates, who should '*be more rounded in their knowledge bases.*' He concluded, nevertheless, that they are a '*similar type standard.*' Participant E observed that full time students appeared to have more knowledge of contract and theory of construction management, but commented that this knowledge is picked up anyway through '*working with particular projects or with particular teams.*' She added that each type of student has some catching up to do on the other, the sandwich needs to develop theoretical perspectives, while the full time needs to develop practical skills. '*So, it probably evens itself out, I would say, over the two years.*'

### *Recruiting preferences*

The participants were asked if, all other things being equal, they would prefer full time or sandwich placement graduates. Four out of the five participants stated that they prefer the sandwich. The other participant did not have a preference and stated that '*It would be purely down to who would seem to fit the position on the day. . . . You are looking at the long term . . . somebody that will grow . . . their potential ability and talent, and you are interviewing on that basis only.*' He felt that placement students, who had worked in other offices, did not have a major advantage over full time applicants, '*because we don't know exactly the level of what they are doing* [Participant B].' Participant C considered that sandwich course and day release students were equal in standard.

Those expressing a preference for sandwich graduates raised the importance of experience. Participant C typifies the general view: '*quantity surveying is all about experience. I mean you can read all the books on it, but it is about experience.*' Commenting on whether he had observed any differences in the level of education between full time and sandwich students, he felt it was difficult to compare the two, but did not think there was a great difference between them, and the initial practical advantage of the sandwich course would be made up in a matter of months, given the exposure and ability. '*I mean they* [both] *get into the swing of it fairly quickly.*'

The contractor often found sandwich students to be more practical than the full time graduates, whom he perceived to be more academic. He continued that if two candidates:

'*had a similar level of experience, and you couldn't tell if one was different than the other* [and] *they're any good at getting on with the job with us, then they're the same type of guy. Our preference would always have been to take on a sandwich guy, and if he's good take him on next year. Have a good look at him. Across the board, that's the number one priority, without a doubt.*'

He continued that if there was a choice of recruiting a full time graduate and a sandwich student who had done his work experience with *another* company '*There's a good chance that the guy from [other company] is going to get the job.*' He explained that there was less of a learning curve, and also had '*great experience of them.*'

Participant E also observed a greater practical awareness in sandwich graduates:

'*I think they* [the sandwich placements] *had a much clearer understanding of the practice as well as the theory. And it probably helped them in their final year. It certainly helped us then when they arrived as a graduate. . . .And overall I think it's a good process. It was a good process for us in that you got graduates back that really were worth having. But they made a meaningful contribution from the first day they walked back in the door. They came out as graduates with that [the practical side] under their wing. So, they weren't coming out with just a theoretical perspective.*'

Participant E made a particularly telling remark: '*I'd probably take the sandwich to be honest. . . . If I was sending my own son off to do it. I think the practical stuff does count to them. . . . You know, purely, as somebody, who is trying to generate an amount of work to get some clients satisfied, to get documents out the door, we think that the [full time] graduates have that bit of catching up to do.*'

### *Evaluation of effectiveness of the full time*

There were mixed opinions amongst the participants regarding the relative benefits of the full time programme in comparison with the sandwich programme. Participant C considered that it '*very much depends on the individual. Some people will benefit from it.*' His initial feeling, however, was that the extra year, generally, didn't add very much

commenting that there was '*a lot to be said*' for the three year sandwich approach in comparison with the four year full time programme. He added later, however, that he expected full time graduates to be slightly more advanced than sandwich students, and have a broader appreciation of more the specialised aspects of discipline in areas such as building contracts and of cost planning. Participant A had a similar view, and considered that the benefits of the four year programme were more '*long term*', and only became relevant after a number of years '*when they have . . . specialised in it or get into a situation where they can use it. But they wouldn't get the opportunity to use it, I would suggest to you, in the first few years having graduated.*'

Participant E also remarked on the long term benefits of the full time programme in developing more theoretical aspects of the full time students understanding. Participant C felt that this might broaden their options, and be beneficial in pursuing further study at Masters level. Participants C and E described the full time programme as being '*worthwhile*'.

Participant C, commenting on the current depressed state of the industry, added that a major advantage of the whole time programme is that it is not dependant on placements during industry slowdowns. '*If you don't get a placement it's very hard to bolt together anything that can substitute for it*'. He continued '*and you see people say . . . take them on for nothing, but . . . it goes against the grain a little bit and when you're just after cutting back on your own staff. You can't really. It wouldn't look too good.*'

Participant B commented that the production focus of practice should not be the sole purpose of education and remarked that education exposes students to more general concepts which they can come back to later as needs arise. '*in today's environment they actually have to be able to mix, and match an awful lot of things. So to have that in your bag is very good.*'

## Summary

The research has established the following main findings

(a) The participants had variable experiences in their ability to recruit placement students.

(b) The participants expect placement students to be able to carry out basic measurement and office administration tasks.

(c) The participants found the placement students to be well prepared technically.

(d) The participants were, in some instances, unclear of the intended learning outcomes.

(e) All practices have some form of student induction and the students were allocated to teams, the large practices operated formal induction procedures.

(f) The students were allocated meaningful tasks appropriate to their experience under the supervision of more senior staff.

(g) The students' progress was monitored by an interim review during the placement.

(h) The students were encouraged to apply for membership of the SCS and supported by various companies.

(i) The participants found the staffing arrangement to be convenient and flexible.

(j) The participants viewed the opportunity to vet students as potential permanent employees as very beneficial. Students returning following graduation represented the greatest benefit of the arrangement.

(k) The participants reported little difficulties in integrating individuals into their organisations.

(l) The participants regarded the problems associated with the approach to be minor problems and were related to the individual rather than the approach. These included lack of motivation, indifference to the placement, failure to pull their weight or misguided expectations among individual students.

(m) Control of the students was not regarded as a particular problem.

(n) The participants regard the approach to be worthwhile.

(o) The participants have similar expectations of sandwich course and full time students' capabilities but, in general, would prefer to recruit a sandwich course graduate.

(p) The participants view the benefits of the full time approach as being more long term.

These findings are discussed in the following chapters.

# CHAPTER SIX

# DISCUSSION OF FINDINGS

## Introduction

The findings presented in Chapter Five have composed a detailed composite description of the process, and presented an initial analysis of the principle issues involved in the work placement process. The purpose of this chapter is to present the principles, relationships and generalisations arising from the findings. The discussion identifies whether the findings support the argument presented in the literature review. Particular attention is paid to those areas which were considered surprising, or which unsettled original assumptions on which the research design was based. The discussion also identifies the implications of the research for practice.

## Principles, relationships and generalisations

The findings have revealed that the work placement approach receives strong support form the Industry. It appears that it satisfies the Industry's need to develop novices basic skills acquired at college at an early stage in their professional development. The participants considered that this early exposure and introduction to the profession is invaluable in providing students with an opportunity to reflect on their chosen career path, and in confirming the students' commitment to it. The participants also noted the team-based approach of professional practice and its benefits in developing key skills, which the literature claims are transferrable over numerous occupations.

### Stakeholders relationships

The findings established a complex and multi-faceted relationship between the employer, college and students. The employer-student experience described by the participants may be viewed as mutually beneficial, particularly from the students' perspective. It is clear that the participants viewed the students as a resource but, nevertheless, adopted a highly supportive approach to their development during the placements. This is evidenced by the commitment of all the participants to supervise the students' preparation for the SCS Assessment of Professional Competence. In essence, these formed a learning contract

between the employer and the student, which minimised the risk, identified by Barnett, of the students being set meaningless tasks. It is suggested that this commitment to formally supervise the student, also provides a strong incentive for the student to return to the employer following graduation in order to complete their APC. This observation supports Billett's view that companies have a strategic interest in staff development.

The strength of the employer-college relationship depended very much on the individuals concerned with three of the participants having strong links with the College. Nevertheless, the contact and communication between the college supervisors and the individual employers was found to be variable and somewhat inconsistent with regard to informing the employers of the intended learning outcomes and maintaining visiting arrangements. The Literature Review suggested these arrangements are central to the success of the approach, and must be well organised and managed. The findings suggest that the College frequently maintained a background presence, and as a consequence most of the participants took a general view of what the students needed to be doing and saw their function as providing good experience. This was not a particular problem for the participants as they represented companies which either have strong links with the professional institutions or have a strong staff development and training ethos. However, it is suggested that the current depressed state of the construction sector has made obtaining suitable placement opportunities very difficult and that it is more likely that students may be placed in companies which are not be familiar with the placement arrangement or its intended outcomes. In these instances, it will be essential for the College to be more actively involved in the process, in order to maximise the beneficial outcomes of the placement. It is also suggested that, in the absence of clear learning outcomes, the work experience may deteriorate to work for the sake of it.

The student-college relationship did not emerge as a major issue amongst the participants. The issues identified in the literature review regarding isolation, inappropriate assessment, inadequate debriefing and failure to capitalise on the workplace learning received little uninvited comment from the participants, and it suggested that this is seen as a private matter between the student and the college. Participants referred to the

need to improve feedback to and from the college, and a more formal and detailed means of employer evaluation may benefit this aspect of the approach.

*Advantages*

The Literature Review discussed a number of benefits that work placement held for employers. These included the opportunity to vet students as potential permanent staff, an economic staffing option and the production of work-ready graduates. These benefits received strong support in the findings and, in general, require only limited further comment. The strength of the support is evidenced by the efforts of the participants to attract placement students and their frustration, when they were unable to do so.

The flexibility of the arrangement appealed to the participants, particularly as it allowed them to form a balanced view of students' ability over the course of the placement. They considered the approach to offer good value-for-money and considered the effort involved in training the students to be well worthwhile, particularly where the student returned following graduation, with its consequent recovery of training costs. They felt that losing placement students was one of the main drawbacks of the approach.

Of particular note are the participants' views of the ability of the approach to develop ready-to-work graduates. The participants identified experience as a key factor in recruiting graduates. They considered that the work placement equips students with the basic skills required by junior and trainee surveyors. This foundation enables work placement graduates to be immediately engaged in productive, fee-earning activities and provides these student distinct advantages over their full time counterparts. The findings accord with the call of the Dearing Report for educational establishments to formulate structures to provide opportunities to gain suitable work experience. Participant B was particularly emphatic on this point.

*Disadvantages*

The Literature Review suggested that employers perceive a number of drawbacks with the work placement approach, in that training resource costs may be lost when students complete their placement, that they may be unclear about the purpose of the placement;

that the students may be inadequately prepared for the placement and that the students may be difficult to control.

While the above issues re-emerged in the findings, the participants presented a positive view of the approach and often struggled to state its shortcomings. These could be better described as disappointments and frustrations rather than disadvantages and appeared to be related to the individual rather than the system's shortcoming. Indeed, a number of the issues that emerged suggest that the broader economic climate was a factor in these difficulties, and were somewhat beyond the control of the participants. The issue of wasted training costs has been discussed above. The principle remaining issues are dealt with below.

### Recruitment

The findings revealed that smaller practices experienced difficulties in attracting and obtaining work placement students. This is unfortunate as small practices, it is suggested, provide an ideal environment for novices to learn and be trained in a wide variety of the skills demanded of the profession. Small businesses are characterised by the principal or partners being personally involved in all aspects of the business. The placement student is, in these situations, likely to be initially involved in a wide range of clerical, data processing and technical duties which teach them the basic tasks of quantity surveying. The student is also likely to be involved with progressively more challenging tasks as the placement progresses. The intimate scale of the business generally ensures a high degree of personal supervision and attention, which suggests a highly effective learning environment. It is also suggested that small practices may be less vulnerable in a recession to a collapse in demand for their services, and may therefore provide a more stable option for allocating placements. It is suggested, therefore that the placements should be allocated on a more widespread basis across the sector.

### Student Preparation

The research found that the placement students were generally well prepared, and capable of performing the tasks expected of them. The high degree of satisfaction with the level of preparation displayed by the placement students was somewhat surprising given the

literature, informal discussions with other quantity surveyors and the researcher's own experience. These would suggest that this is not always the case and instances of lack of adequate student preparation may be more widespread than reported above. It may be that the focus of the research on senior management, or the size of the sample, did not reveal the full extent of this issue.

### *Control issues*

The participants noted that controlling the students was not major problem. While they revealed instances of lack of motivation, indifference to the placement, failure to pull their weight or misguided expectations among individual students, they felt that this must be expected in any case. It is suggested that they viewed these instances as a source of regret, rather than a criticism of the approach. There was very little evidence of a heavy-handed approach to controlling the students.

## Implications for Practice

The positive views or the participants and, in particular, their generally expressed preference to employ sandwich course students over full time graduates present a strong rationale for adopting a work placement approach in quantity surveying courses.

Of particular note was the participants' expectation for novices to be capable of carrying out basic measurement tasks. In this regard, they perceived that placement students and full time graduates are of a comparable standard. It may be suggested that colleges operating work placement schemes focus more on the technical skills at an early stage in their programmes. The view that it takes upwards of six months for a full time graduate to catch up on a placement students is of obvious concern to institutions operating full-time programmes.

The Literature Review, however identified that the approach is resource intensive and may be difficult to arrange and manage, particularly in difficult economic circumstances. In these situations the quality of the placements may not be ideal and may require the college to operate alternative arrangements, further stretching their resources. One participant noted that it is difficult to simulate work experience in an academic setting,

and the adoption of a team-based approach similar to that employed in professional practice ought to be central feature of any such arrangement. It is suggested that a full time approach is better in these circumstances, although, paradoxically it may be more difficult for full-time graduates to secure employment.

# CHAPTER SEVEN

# CONCLUSIONS AND RECOMMENDATIONS

## Introduction

This chapter summarises the findings and presents the research conclusions in the context of the aims and objectives of the study. It outlines the experiences of the profession and the implications for the college and students. It discusses the recommendations arising from the research. The chapter concludes with an assessment of whether the research aims and objectives have been achieved, and suggests potential areas for further research.

## Discussion of the Research Questions

The aim of the research is to explore the experiences of quantity surveying employers of the work placement process and to present the issues, benefits and drawbacks associated with the approach.

The Literature Review presented work placement as a dynamic and multi-faceted educational approach which is underpinned by the claim that adult learning occurs through active involvement in meaningful tasks in authentic contexts. The approach is flexible and has wide application within the further educational sector. The three-way relationship of academia with employers and students requires careful planning, implementation and resourcing. The approach is regarded positively overall by the three central stakeholders, who have reported tangible benefits from its operation. However, the approach has number of drawbacks.

The research design is interpretivist and qualitative in nature. The data was gathered through a series of one pilot and four phenomenological interviews with senior representatives of the quantity surveying profession. The primary concern was to gather rich and deep data which would allow a credible account of the approach to be composed from the employers' perspective. The design recognises the limitations of the research and acknowledges that the findings are not exhaustive.

The research has established the following main findings. In general, the participants reported highly positive experiences of employing work placement students and that the approach works well in practice. It emerged, however, that smaller practices experienced some difficulties in securing placement students and that the larger quantity surveying practices and construction companies were better placed to recruit placement students. The participants expected the placement student to be capable of carrying out basic measurement tasks under supervision and within a team structure to support the production of a range of tender and cost planning documents. The participants commented favourably about the students' ability to perform these tasks.

The participants reported that the College, in general, maintained a background presence, and allowed the participants a high degree of autonomy in managing the students' experience. The participants considered their function was to provide the students with good experience, and encourage the students to apply for membership of the professional institutions. They maintained a high degree of control and supervision over the students and were aware of their status as learners.

The participants felt that the work placement approach provided valuable opportunities to recruit short term staff and vet them as potential full-time employees. They reported few problems which would not be encountered in employing young staff in any case. In general, they consider work placement graduates to be more employable than their full time counterparts.

The Discussion elaborated these themes and identified a number of implications for practice.

## Limitations of the Research

Relatively few difficulties were encountered during the research process and the researcher received generous cooperation from all the participants. However, the research was carried out in conjunction with a limited panel of five participants within the quantity surveying profession. This sample size is too small to claim generalisable findings. It is also acknowledged that the senior positions held by the participants, may not be fully representative of the experiences of surveyors employed in middle management

positions. There is no doubt, therefore, that the study would benefit from a wider participant base, both in terms of numbers of participants and their positions within the company. It is acknowledged that the full extent of employers experience of work placement has, therefore, not been exhausted, and that further aspects of the approach may be revealed through further research which would, in turn, lead to a more comprehensive description of the phenomenon.

In addition, the research was conducted at a time when construction activity was suffering a sharp decrease and the participant's companies, particularly the larger companies, were in the process of shedding large numbers of staff. The situation has deteriorated further in the intervening period and the expectation that the industry can absorb the large current cohort of sandwich course students is unrealistic. The rationale for introducing the approach in the current climate, therefore, has been significantly weakened.

Subject to the above reservations it is suggested that the research has broadly achieved the aims and objectives set out at the commencement of the study.

## Recommendations

The requirements of industry provide the rationale for many third level education programmes. The participants' positive experiences and evaluation of the work placement approach reported above leads to the conclusion that they consider that this approach is as good as, if not better than, full-time programmes. These are perceptions that cannot be lightly dismissed.

The following recommendations therefore derive from the research

1. The Programme Committee of the full-time Construction Economics and Management Degree should, at the earliest opportunity, consider designing and implementing a supervised work placement module as an optional/mandatory component in the delivery of the Programme.

2. In the event that the Programme Committee considers that it inopportune, at present to introduce such a proposal or there is inadequate support for its implementation; it is recommended that the student foster firm scheme should be revived and strengthened, to provide work experience during term time, ideally during review weeks, on an ongoing basis with a view to providing summer vacation placements.

## Recommendations for further research

While the findings presented above may be viewed as being largely representative of employer's experiences of work placement, it certainly does not claim to be fully representative or generalisable. It is also suggested that prevailing economic conditions impact significantly on the individual's experience of work placement, and that these experiences may need reappraisal as a result. There is a need, therefore, for more extensive research to be carried out in this area, involving a more numerous and more widely based sample. It is suggested that a quantitative survey research approach could be employed to establish and measure the reliability and validity of the research findings presented above.

It is also suggested that the students and academic perspective of work placement may benefit from further investigation in the light of rapidly changing circumstances

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# APPENDIX 1

## Ethics Statement

'So the principle that guides my actions is a sense of the pedagogic Good' (van Manen, 1997 p. 6)

This research will be conducted based on the *Revised Ethical Guidelines for Educational Research* (2004) published by British Educational Research Association. These guidelines embody the principles best research practice and describe the responsibilities to participants, sponsors and the wider research community. It is not envisaged that this research will involve any practice which deviates from these principles.

Approval from the ethics committee of the Dublin Institute of Technology is not required in this instance as the research is being carried out under the supervision of a qualified member of the staff.

The researcher is aware of his responsibility to the wider research community. His research will involve adopting a code of professional conduct that does not harm or wrong participants and colleagues or undermine public confidence in the research process. He is aware that he is expected to conduct and report the research in an independent, objective and honest manner.

The key ethical issues identified and addressed in this research are

- Informed consent; Participants will be sent an information sheet setting out the purpose and nature of the research and the extent of the commitment involved in their participation. A letter of consent will accompany this form.

- Confidentiality of the participants and the safeguarding of their identities and places of work; this will be achieved by assigning numbers to the participants and avoiding references which may lead to indirect identification.

- Voluntary participation; participants will be informed of their right to withdraw at any stage in the research process, including after the data has been gathered.

- Access; participants will be advised of the extent to which access to the transcripts, data and their views will be made available to the public. Participants will also be advised that they not have the right to censor the final dissertation in the absence of disclosure or breach of agreement.

- Reciprocity; participants will be provided with a summary of the key findings of the research.

# APPENDIX 2

## Information Sheet

The purpose of this study is to explore the experiences of Irish employers of quantity surveyors towards third level work placement students, particularly 'sandwich year' students, as an effective strategy in educating quantity surveyors.

The researcher, Tony Cunningham, is a member of the staff of the School of Construction and Real Estate in the Dublin Institute of Technology and is a Chartered Quantity Surveyor. This research is being carried out in fulfilment of a Masters of Arts Degree in Teaching and Learning in the Dublin Institute of Technology.

Participants have been selected from the community of Chartered Quantity Surveyors generally, and particularly those who have employed graduates from both full time and courses offering structured sandwich based placement.

Your involvement entails participation in a recorded semi-structured interview. A pilot interview has been carried out and suggests that the interview will last approximately 40 minutes. The interviews will be analysed in order to inform the Programme Committee of the Construction Economics and Management Degree of the employer's experiences of work placement and their appraisal of graduates of work placement and full time education approaches. Employers' experiences are an important element within this debate. These views have not been documented and therefore need to be obtained to contribute to informed decision making regarding the future direction of the four year full time CEMD programme. Participants will be provided with a summary of the key findings of the research.

The data obtained from the interviews will be transcribed and access to this will be confined to the researcher and his thesis supervisor. Significant statements may be quoted in the thesis. The thesis will be held in reserve in the Library of the Learning and Teaching Centre of the Dublin Institute of Technology, Mount Street and may be read only on the premises. The identity of readers of the thesis is recorded.

Information obtained during the course of the research will be treated as confidential and measures will be taken to safeguard the confidentiality of the information and to ensure the non disclosure of identity of the participants or their organisations. Participants will be referred to by letter and will not be named.

Participants have the right to withdraw from this research at any stage but will not have the right to edit or censor the final dissertation so long as their identity/organisation has not been revealed nor has there been any other breach of the agreement.

# APPENDIX 3

Tony Cunningham

35 Granville Road

Dun Laoghaire

Co Dublin

Date 12 March 2009

Dear Sir / Madam

## Request for Consent

## Research into
## EMPLOYERS' EXPERIENCE OF WORK PLACEMENT:
## A QUANTITY SURVEYING PERSPECTIVE

I have read and understand the attached information sheet outlining the nature of the research and the amount of commitment required and consent to participating in the research under these conditions. I am aware that I may withdraw this consent at any stage during the process.

Signed

_____

Date

_____