



Developing a reflective capacity within undergraduate education: the role of work-based placement learning

Report of a research project funded by the Higher Education Academy and the Charitable Trusts of the Institute of Chartered Accountants in England and Wales 2005–07

October 2007

Professor Ursula Lucas
Dr Phaik Leng Tan

Contents

About the authors and acknowledgements	3
Executive summary	4
1. Background, aims and methodology	10
2. The development of a reflective capacity and the role of work-based placement learning within undergraduate education	14
3. Strand 1: the evaluation of a questionnaire to quantitatively measure levels of reflective thinking and the findings	28
4. Strand 2: an enquiry into students' ways of knowing and their experience of work-based placement learning – research method	36
5. Strand 2 findings: ways of knowing and contextual features	45
6. Strand 2 findings: the development of a reflective capacity	67
7. Strand 2 findings: the improvement in academic performance of placement students	74
8. Supporting the development of a reflective capacity: further research and a pedagogic framework	87
References	94
Appendices	98

About the authors

Professor Ursula Lucas

is a chartered accountant and Professor of Accounting Education at the Bristol Business School, University of the West of England. Her research interests include: the student and lecturer experience of learning and teaching introductory accounting; students' perceptions of key skills development; and the introduction of reflective practice within the curriculum. Ursula currently serves as Senior Associate Editor for *Accounting Education: an International Journal*. In 2001 she was awarded a HEFCE National Teaching Fellowship for excellence in teaching. Further information about her research and activities is available at: <http://bbs-staff.uwe.ac.uk/public/profile.aspx?username=u-lucas>

Dr Phaik Leng Tan

is a chartered accountant and Principal Lecturer at Bristol Business School, University of the West of England (UWE). In her role as the Director of Undergraduate Accounting and Finance (A & F) programmes, she has been responsible for developing placement and career-enhancing opportunities for A & F students, and has contributed to UWE's 'Developing Undergraduate Skills and Capabilities' project and its implementation in the A & F programmes. Research interests include accounting specialists' and non-specialists' perceptions of the meanings of key financial terms, and the development of reflective practice among undergraduates. Further information about her research and activities is available at: <http://bbs-staff.uwe.ac.uk/public/profile.aspx?username=p-tan>

Acknowledgements

The authors would like to thank Dr Paul White, University of the West of England, for his statistical support and advice. We particularly acknowledge the contribution of the participating students, who gave freely of their time and willingly shared their experiences.

Executive summary

1. Background and rationale

This research project sought to investigate the development of a reflective capacity within undergraduate education. In particular, the role of work-based placement learning was investigated in relation to how it might support, encourage or inhibit the development of a reflective capacity, and how that reflective capacity is related to academic performance. The context for the research was undergraduate education in business and accounting, but the findings of this project are of relevance to other subject areas.

The rationale for this research arises from the increasing emphasis within undergraduate and professional education on the development of a reflective capacity. The capacity to reflect underpins the exercise of professional judgment and ethical awareness, and is regarded as an integral part of learning to learn. Since the adoption of the Dearing principles, universities in the United Kingdom (UK) have sought to integrate reflective practices into their undergraduate curricula. The need to develop reflective practice is also an essential part of professional learning. Thus it is an integral element of the Institute of Chartered Accountants in England and Wales' (ICAEW) work-based Initial Professional Development (IPD) framework for its students and Continuing Professional Development (CPD) framework for its members.

This project draws on a body of research concerned with the identification of key intellectual and personal changes undergone by students as they progress through higher education and entry into employment. This research finds that students vary in their capacity to reflect and to exercise judgment. This arises because their beliefs about knowledge (epistemology) affect the way in which they learn and make judgments. These beliefs are sometimes referred to as 'epistemological beliefs' or 'ways of knowing'. This project draws, in particular, on the work of Baxter Magolda (1992). She identified four qualitatively different *ways of knowing*. These comprise:

- absolute knowing: knowledge exists in an absolute form – it is either right or wrong
- transitional knowing: knowledge is certain in some areas and uncertain in other areas
- independent knowing: knowledge is uncertain – everyone has their own beliefs
- contextual knowing: knowledge is contextual – one exercises judgment on the basis of evidence in context.

In addition, a way of knowing comprises three elements:

- cognitive (how one makes meaning of knowledge)
- interpersonal (how one views oneself in relation to others)
- intrapersonal (how one perceives one's sense of identity).

Development in these three areas does not necessarily go hand in hand. Thus, students can develop cognitive enquiry skills, but may be unable to use them to

decide what to believe or how to act. This occurs because they lack a strong internal sense of identity or belief system.

2. Aims, objectives and methodology

The aim of the project was to investigate the development of reflective capacity during work-based placement learning and its relationship to student final-year academic performance.

Its objectives were to enquire into:

1. the nature of the reflective capacity brought by business studies and accounting undergraduates to their work-based placement or their final-year studies
2. the elements within the work-based placement that support, encourage or inhibit the development of a reflective capacity
3. how the reflective capacity brought by undergraduates from their work-based placement is related to their academic performance in their final year of undergraduate study.

The project comprised two strands of research. The first strand evaluated a questionnaire for reflective thinking (QRT) designed to quantitatively measure aspects and extent of reflective thinking (Kember *et al.*, 2000). This relates to research objectives (1) and (3) above. The questionnaire was administered to a cohort of students (n=260) at the beginning and end of their work-based placement, and to a cohort of final-year students (n=800) at the beginning and end of the academic year.

The second strand of research involved an enquiry into the nature of students' reflective capacity, using interviews to explore their ways of knowing and their experiences during their work-based placement. This relates to research objectives (1), (2) and (3) above. Interviews were conducted with placement students (n=11) at the commencement and in the latter stages of their work-based placements, and with final-year students (n=6) who had previously completed a placement.

3. Findings

3.1 Strand 1: The evaluation of a questionnaire to quantitatively measure levels of reflective thinking

The QRT comprises four scales that are designed to measure four constructs: Habitual Action, Understanding, Reflection and Critical Reflection.

Analysis of the responses to the QRT indicates the following:

- the Habitual Action scale does not have satisfactory internal consistency
- the Understanding and Reflection scales do not offer sufficient scope to identify variation in students' responses or to identify variation in response at different points in time
- the Critical Reflection scale has satisfactory internal consistency. It also provides scope to identify variation in students' responses.

Analysis of the Critical Reflection scale in conjunction with students' academic performance indicates the following:

- for placement students, there is no significant relationship between their level 2¹ average mark and Critical Reflection score at the start of the placement year
- there is no significant change in the students' mean Critical Reflection score over the placement year
- at the start and at the end of the final year, there is no significant difference in mean Critical Reflection scores between students who went on placement and those who did not
- students' Critical Reflection score at the end of the final year is not significantly correlated with their final-year average mark
- regression analysis indicates that for those students who went on placement, their average final-year mark was 3.7 percentage points higher than those who did not go on placement (after allowing for the linear effect due to level 2 average).

These findings suggest, first, that within the context of business and accounting undergraduate degree programmes, the QRT in its current form is not an appropriate instrument for the identification of levels of reflective thinking so far as the Habitual Action, Understanding and Reflection scales are concerned. However the Critical Reflection scale appears to have a reasonable consistency and was thus used within a range of exploratory analyses.

Second, students who undertake placements appear to achieve a better level of academic performance than those who do not. These results thus support the findings of Gomez *et al.* (2004), Mandilaras (2004), Rawlings *et al.* (2005) and SurrIDGE (2007), who all found that students' participation in placement was related to a significant improvement in their academic performance in the final year. In this study, as with the Gomez *et al.* (2004) and SurrIDGE (2007) studies, final-year marks have a 75 per cent weighting when determining degree class, hence placement may have a major impact, allowing students to cross the threshold to a higher degree class. However, it would appear that this improved level of academic performance is not due to a developing level of critical reflection as operationalised within the QRT.

¹ There are potentially four years to business and accounting degree courses. Level 1 and level 2 relate to years 1 and 2. A placement year takes place in year 3. Level 3 refers to the final year.

3.2 Strand 2: An enquiry into students' ways of knowing and their experience of work-based placement learning

The findings from the analysis of the student interviews are outlined below.

Ways of knowing:

- ways of knowing were identified, with absolute and transitional ways of knowing being predominant, confirming the findings of Baxter Magolda (1992)
- however, the context in which the research was conducted possesses features that appear to have a *significant* impact on the way in which these ways of knowing are manifested
- these contextual features comprise: the motivation for studying for a degree, a positive attitude towards placement, a strong focus on the organisation of learning and attention to the requirements of assessment.

The development of a reflective capacity:

- the placement provides a context in which students have to
 - take responsibility for their own learning and performance
- the placement provides a context within which students
 - develop interpersonally, through a range of changing relationships with others
 - develop intrapersonally, through a changing sense of self
- placement provides a range of experience that might be integrated with prior learning and lead to cognitive development, but this potential is realised in only a limited number of ways.

The relative improvement in academic performance achieved by placement students in their final year:

- seems to arise from a developing sense of self (greater intrapersonal contribution) that leads to a more focused application towards their learning
- possibly, for some students, a greater range of experience that might be integrated with prior learning and lead to cognitive development, but this potential is realised only in a limited number of ways.

4. Conclusions

The findings of this research project indicate that work-based placement learning has an important role to play in the development of a reflective capacity. It appears to contribute to improved academic performance in the final year of students' undergraduate studies. However, the latter arises from a development of interpersonal and intrapersonal, rather than cognitive, aspects. Consequently, it would appear that

there is the potential for placement learning to make an even greater contribution to undergraduate education. The context for this research was a business and accounting undergraduate programme in one UK institution. However, the findings of this project are likely to be of relevance to other subject areas and have implications for work-based professional learning.

5. Recommendations

The QRT:

- the findings indicate that the QRT is not currently an appropriate instrument for use within the context of a business and accounting programme in a UK university. However, further investigation into the disciplinary context of its use would be of value
- the statistical analysis is available to researchers upon request, and the data may contribute to further development of the QRT.

Future research into the development of a reflective capacity:

- the value of the findings from this project arise from *overall picture* that they provide of the student experience of work-based placement learning and its relationship to the development of a reflective capacity. Thus there is value in conducting further research in specific subject areas
- the interviews tapped into students' *professed* beliefs about knowledge. A key finding was that students found it difficult to recall and talk about their prior studies. Consequently further research is required into students' *enacted beliefs*. This may involve the use of think-aloud protocols and retrospective interviewing to identify the nature of how students think about knowledge as they work on a task
- further interview-based research is required into the meanings that educators and students attach to the terms 'theory' and 'practice'.

Maximising the potential for work-based placement learning to contribute to the development of a reflective capacity

These findings are relevant to both undergraduate work-based learning, and professional training and development. The findings may inform directly:

- the design of more effective work-based and class-based learning opportunities
- the creation of a more effective learning environment.

To support evidence-informed pedagogic interventions a pedagogic framework is proposed in which students take central responsibility for their own learning. The learning environment is one in which two forms of *practice* and two forms of *enquiry* are the subject of focus:

- *practice* of the student: educational and concurrent practice (part-time and voluntary work)
- *practice* of others: lecturers and peers within education, and colleagues and managers within placement
- *enquiry* into theory, its relationship with practice and judgment and the role of 'evidence'
- *enquiry* into the role and nature of reflection and reflective practice.

This emphasis on *practice* and its relationship with *knowledge and theory* is argued to be necessary to support the development of cognitive aspects of ways of knowing.

This pedagogic framework complements, but also extends, existing pedagogic frameworks that are concerned primarily with the development of skills and employability. This pedagogy is also compatible with, and supportive of, a learner-centred approach within higher and professional education.

1. Background, aims and methodology

Introduction

This report presents the principal findings of a research project undertaken during the period 2005-07. The aim of this research project was to investigate the development of a reflective capacity within undergraduate education. In particular, the role of work-based placement learning was investigated in relation to how it might support, encourage or inhibit the development of a reflective capacity, and how that reflective capacity is related to academic performance. The context for this research was business and accounting undergraduate education. However, the findings of this project are of relevance to other subject areas.

Rationale

The rationale for this research arises from the increasing emphasis within undergraduate and professional education on the development of a reflective capacity. The capacity to reflect underpins the exercise of professional judgment and ethical awareness. It is also regarded as an integral part of learning to learn. Since the adoption of the Dearing principles, universities in the United Kingdom (UK) have sought to integrate reflective practice into their undergraduate curricula. The need to develop reflective practice is also a key aspect of professional learning. Thus it is an integral part of the work-based Continuing Professional Development (CPD) framework for members of the Institute of Chartered Accountants in England and Wales (ICAEW), as well as the work-based Initial Professional Development (IPD) framework for its students.

This project draws on a body of research concerned with the identification of key intellectual and personal changes undergone by students as they progress through a course of higher education and entry into employment. The findings from this research indicate that students vary in their capacity to reflect and to exercise judgment. This arises because their beliefs about knowledge (epistemology) affect the way in which they learn and make judgments. Sometimes these are referred to as 'epistemological beliefs' or 'ways of knowing'. Baxter Magolda (1992), whose work this project draws specifically upon, has identified four qualitatively different *ways of knowing*. These comprise:

- absolute knowing: knowledge exists in an absolute form – it is either right or wrong
- transitional knowing: knowledge is certain in some areas and uncertain in other areas
- independent knowing: knowledge is uncertain – everyone has their own beliefs
- contextual knowing: knowledge is contextual – one exercises judgment on the basis of evidence in context.

If students possess a way of knowing that is absolute, then they are unlikely to cope well with problem-solving in conditions of uncertainty. However, students who possess

an independent way of knowing are likely to feel more confident, and be more effective, in such situations. A way of knowing comprises three elements:

- cognitive (how one makes meaning of knowledge)
- interpersonal (how one views oneself in relation to others)
- intrapersonal (how one perceives one's sense of identity).

Development in all three areas does not necessarily go hand in hand. Thus students can develop cognitive enquiry skills, yet not be able to use them to decide what to believe or how to act. This occurs because they lack a strong internal sense of identity or belief system. Hence, both *cognitive* and *affective* domains are implicated in ways of knowing.

The context for this project is work-based placement learning within the business and accounting undergraduate curriculum. This is a fruitful area for empirical research for two reasons. First, there is mixed evidence about the way in which the work-based placement impacts on academic performance within the final year of a degree programme. However, a growing number of studies indicate that students who undertake a placement may achieve a degree classification higher than those who do not. Second, the work of Baxter Magolda and others show that students often make better progress in the development of a reflective capacity when required to make significant independent decisions, and benefit from work and leadership experiences in which they have to resolve conflicting views, whether their own or others. Therefore, an assumption underlying the design of this project was that interpersonal and intrapersonal development is more likely to be stimulated within a work-based placement than in an academic environment. Thus finer-grained studies into the nature and impact of work-based learning are required.

The business and accounting studies programme area is a particularly appropriate context for such a project. It constitutes a significant area of study within UK undergraduate education. Moreover, the year-long (44 weeks) placement in the third year of study is an integral part of most business studies degrees. This 'pre-professional' stage of learning is directly of relevance to the ICAEW since approximately 50 per cent of students entering an ICAEW training contract possess business, economics and accounting-related degrees.

Aims, objectives and methodology

The aim of the project was to investigate the development of reflective capacity during work-based placement learning and its relationship to student final-year academic performance.

Its objectives were to enquire into:

1. the nature of the reflective capacity brought by business studies and accounting undergraduates to their work-based placement and/or their final-year studies

2. the elements within the work-based placement that support, encourage or inhibit the development of a reflective capacity
3. how the reflective capacity brought by undergraduates from their work-based placement is related to their academic performance in their final year of undergraduate study.

This project comprises two strands of research. The first strand evaluated a questionnaire designed to quantitatively measure aspects and extent of reflective thinking (Kember *et al.*, 2000). This relates to research objectives (1) and (3) above. This is a self-report questionnaire in which students are asked to indicate the extent of their agreement with a series of statements about their thinking and actions. These statements are derived from prior qualitative research findings and draw on the work of Mezirow (1991).

The second strand comprises the main part of the research project: an enquiry into the nature, and development, of students' reflective capacity through an exploration of their ways of knowing and their experience of work-based placement. This relates to research objectives (1), (2) and (3) above. Research on students' ways of knowing is concerned with how students make meaning of their experience, and how this is related to the way they approach their learning. This requires careful listening to what students have to say about their experience and the suspension of judgment to empathise with, and subsequently describe, that experience. The aim is to allow the student's own frame of reference to emerge. This strand of the project therefore falls into the naturalistic area of enquiry and implies a certain type of research method: the semi-structured extended interview.

The project report

The report that follows presents the principal findings of the study, and is organised into the following chapters:

Chapter 2 The development of a reflective capacity and the role of work-based placement learning within undergraduate education

This chapter examines what is meant by the term 'development of a reflective capacity', reviews findings from the literature concerning the development of a reflective capacity and discusses the role of work-based placement learning.

Chapter 3 Strand 1: the evaluation of a questionnaire to quantitatively measure levels of reflective thinking and the findings

This chapter discusses the research objectives, method and findings of Strand 1 of the project.

Chapter 4 Strand 2: an enquiry into students' ways of knowing and their experience of work-based placement learning – research method

This chapter describes the research methodology and method that underpin this strand and the key features of the context for the research.

Chapter 5 Strand 2 findings: ways of knowing and contextual features

This chapter describes the different aspects of ways of knowing identified within the interviews and the contextual features that impacted on how they were manifested.

Chapter 6 Strand 2 findings: the development of a reflective capacity

This chapter discusses how the placement provides a context within which students are able to develop interpersonally, through a range of changing relationships with others, and intrapersonally, through a changing sense of self.

Chapter 7 Strand 2 findings: the improvement in academic performance of placement students

This chapter discusses how the relative improvement achieved by placement students in their final year seems to arise from a developing sense of self, leading to a more focused application towards their learning. In contrast, there appears to be limited cognitive development, although the placement provides a range of experience that might support this.

Chapter 8 Supporting the development of a reflective capacity: further research and a pedagogic framework

This chapter concludes the report by discussing implications for future research and proposes a pedagogic framework to support the development of a reflective capacity.

2. The development of a reflective capacity and the role of work-based placement learning within undergraduate education

This chapter examines what is meant by the phrase ‘development of a reflective capacity’, reviews findings from the literature on ways of knowing and the development of a reflective capacity, and discusses the role of work-based placement learning.

2.1 What is meant by ‘the development of a reflective capacity’?

When students graduate and enter a fluid and dynamic professional and managerial life, there is an expectation that they will develop as reflective practitioners (Schön, 1987). A reflective practitioner is capable of more than just an instrumentalist approach to problem-solving. An instrumentalist approach involves the straightforward application of theory and techniques derived from a body of systematic, scientific knowledge. However, in real-life, practitioners are challenged by complex and ill-defined problems in unique situations. This demands an active, rather than a routine or habitual, response. Schön argues that it requires reflection-in-action. This involves a drawing on experience, a connection with one’s feelings and being aware of one’s ‘theories in use’. He describes this vividly:

‘The practitioner allows himself to experience surprise, puzzlement, or confusion in a situation which he finds uncertain or unique. He reflects on the phenomenon before him, and on the prior understandings which have been implicit in his behaviour. He carries out an experiment which serves to generate both a new understanding of the phenomenon and a change in the situation.’ (Schön, 1983, p.68)

Learning within higher education similarly expects that students will develop a capacity for reflection. However, it is unlikely to be of the same order as that developed within the messy realities of managerial and professional life. Thus it is helpful to have some way of identifying what is involved in the process of ‘reflection’.

Mezirow (1991, p.100f) draws on and extends Dewey’s (1933) notion of reflection. Mezirow asserts that one should distinguish between three types of reflection. He argues that reflection is the process of critically assessing the content, process or premise(s) in relation to a problem or situation. Reflection on assumptions underlying *content*, as described by Dewey, would lead one to consider facts or evidence. However, one should also reflect on the assumptions underlying *process*, and this leads to a questioning of how one deals with a problem: reviewing the effectiveness of information-search strategies or the appropriateness of particular techniques for the manipulation of data and evidence. Reflection on *premises* involves a questioning of assumptions about shared meanings and the validity of accepted ‘norms’, in other words, a making ‘problematic’ of the previously taken-for-granted. Because premises are seen to be special cases of assumptions, Mezirow goes on to distinguish between *reflection* and *critical reflection*. Reflection involves a critique of assumptions, whereas critical reflection involves the critique of premises.

Mezirow also distinguishes between reflective and non-reflective action. Non-reflective action can take two forms: habitual or thoughtful action. Students are expected, initially, to learn and then be able to apply basic problem-solving techniques within their substantive area of study. In time, this may become habitual or taken-for-granted, as tasks that initially seemed ill-structured become well-structured as students become more experienced and knowledgeable. For example, a student may learn double-entry bookkeeping. At first some understanding of the basic concepts underlying double-entry is required but, in time, it becomes a taken-for-granted way of handling data and recording transactions. Other examples might be the statistical techniques used in marketing or financial management, the calculation of accounting ratios, costing methods, and PEST and SWOT analysis techniques.

Thoughtful action 'makes use of existing knowledge, without attempting to appraise that knowledge, so learning remains within pre-existing meaning schemes and perspectives.' (Kember *et al.*, 2000, p.384). In other words, underlying assumptions are *not* critiqued. Kember and colleagues point out that this covers a wide-range of learning within higher education and covers all of Bloom's (1956) well-known categories of knowledge, comprehension, application, analysis and synthesis. For example, financial data recorded by a double-entry system would be used to produce the primary financial statements; generally accepted approaches are adopted for inventory valuation and in the preparation of budgets.

Reflection involves the critique of assumptions. For example, a student might reflect on process (the applicability of certain costing techniques within individual contexts) or on content (the nature of costing evidence available for use by those techniques). Critical reflection involves the critique of premises. Mezirow (1991, p.223) describes this as 'transformative learning': the transformation of beliefs, attitudes, opinions, and emotional reactions that constitute students' meaning schemes. This involves reflection on presuppositions or the assessment of assumptions implicit in beliefs, including beliefs about how to solve problems. In the case of the costing example referred to earlier, this might involve a realisation that there was a political agenda implicit in the costing method that was adopted, or that costing methods take-for-granted the exclusion of costs that are difficult to measure, such as environmental impact. Using an example of auditing, this questioning can take place at a number of levels as students begin to appreciate that 'audit techniques' are actually grounded in certain assumptions about the nature and function of financial statements and evidence itself. Similarly, a student might realise that ethical issues might not solely arise out of individual actions, but might be implicit within certain management practices or the way in which regulatory systems are organised.

The above discussion has highlighted four types of action which vary in the types of activity and reflection involved, and in the nature of the critique. These are summarised in Table 1 below.

The process of perception and transformation involved in critical reflection is not straightforward. Mezirow (1990, p.1) points out the powerful influence of our frames of reference and the assumptions implicit within these. He terms these 'habits of making meaning' and argues that they play a cardinal role in learning. It is this emphasis on

such habits and frames of reference that distinguishes critical reflection from the cognitively-based notion of critical thinking skills. More than just cognition is involved. Emotion and identity are involved too, as deeply held beliefs are challenged. For example, students might start to consider issues of who to trust and when to be sceptical.

Type of action	Nature of activity/reflection	Nature of critique
Habitual action	Well-structured repetitive tasks	No critique
Thoughtful action	Higher order cognitive processes to analyse, perform, discuss and evaluate	No critique
Problem-solving	Reflection	Critique of assumptions about content and process
Problem-posing	Critical reflection	Critique of premises

Table 1: Types of action, the nature of activity and critique (derived from Mezirow, 1991)

Brookfield (1987) points out that the development of a reflective scepticism – a key attribute for any professional – is a major *affective* outcome of critical reflection. It involves ‘a *readiness* to test the validity of claims made by others for any presumed givens, final solutions, and ultimate truths against one’s own experience of the world.’ (ibid, p.22, emphasis added). Reflective scepticism means that, even when a commitment is made to a particular way of viewing the world, or set of values, it is an informed commitment and the student remains critically aware. In so doing, students have to take a stand, to question authority and to develop their own voice. Critical reflection thus places great expectations on the student’s capacity not only to think critically, but to move towards critical *being*, which will ultimately involve action (Barnett, 1997, p.1). Returning to Schön’s vivid description of reflection-in-action, the practitioner (or student) ‘*allows* himself to experience surprise, puzzlement, or confusion in a situation which he finds uncertain or unique’. Thus reflection-in-action involves a willingness, or a capacity to develop, qualities of openness, of being prepared to acknowledge uncertainty and of being able, ultimately, to take a view and act.

To conclude this section, the following elements are thus assumed to underpin a reflective capacity:

- a motivation that leads to a constant questioning
 - of the taken-for-granted

- of deepening layers of assumptions
- of one's own motivations
- an openness to surprise and puzzlement
- an acceptance of the prevalence of uncertainty and ambiguity
- a willingness to take a personal view or decision.

One would not expect undergraduates to fully achieve such capacity. Indeed, the notion of the fully reflective practitioner is more of an aspiration than a practical possibility. However, one might expect that students would start to develop such a capacity during their studies. To do so they must be willing to question habits of making meaning; to critique premises that are so taken-for-granted that they are rarely questioned. Mezirow identifies three types of premise that are implicated within this critique: psychological, cultural and epistemic. Psychological premises are inhibitory rules that are unconscious, but that cause anxiety and guilt when violated; for example, some students may see ability as fixed and stable, whereas others may see ability as amenable to change and growth (Dweck, 1999). Cultural premises are embedded in the dominant cultural values of a society and are transmitted by social institutions. They inform our conduct in political, economic, occupational and religious spheres. Thus students might call into question the teaching and learning regimes that operate within universities with their assumptions about power relations and the role of the learner (Trowler, 2002). Epistemic assumptions relate to beliefs about knowledge: its nature, source and use. These assumptions are highly relevant to higher education. Accordingly, the next section contains a review of the findings of research into the nature of students' beliefs about knowledge (or ways of knowing) and how these affect their ability to develop a reflective capacity.

2.2 Ways of knowing and the development of a reflective capacity

'Ways of knowing'

A wide range of research has been conducted into students' beliefs about knowledge (epistemologies) within higher education, although most of this research has taken place in the US, with relatively little in the UK². Over several decades interview research has shown that students vary in their beliefs about knowledge, and that this affects the way in which they learn and make judgments (Perry, 1970; Belenky, Clinchy, Goldberger and Tarule, 1986; Baxter Magolda, 1992). Sometimes these are referred to as 'stages of intellectual development' (Perry, 1970) or more recently, 'ways of knowing' (Belenky *et al.*, 1986; Baxter Magolda, 1992)³. This project draws on the work of Baxter Magolda since, to a large extent, she has synthesised findings

² This project draws on the work of Baxter Magolda (1992), but is also informed by an understanding of the broader framework of research into personal epistemologies. Hofer (2004a, p.1) points out that the foundations of most models of epistemological understanding can be traced to Perry's (1970) scheme of intellectual development during college years (within the US). However, work since then varies in terms of the assumptions that underpin the respective models, their associated research methods and their focus of educational interest. For a more detailed discussion of these models, see Lucas and Tan (2006a).

³ This research has been complemented by the work of King and Kitchener (2004) on the development of reflective judgment.

from earlier research through her large-scale empirical studies, and she also incorporates issues relating to identity.

Baxter Magolda asserts that an understanding of students' intellectual or academic development should be:

'at the heart of effective educational practice. Students interpret, or make meaning of, their educational experience as a result of their assumptions about the nature, limits, and certainty of knowledge. Such assumptions, referred to by researchers as epistemic assumptions (Kitchener, 1983), collectively form 'ways of knowing'.' (Baxter Magolda, 1992, p.3)

Baxter Magolda identifies four qualitatively different *ways of knowing*⁴:

- absolute
- transitional
- independent
- contextual.

An absolute way of knowing assumes that knowledge exists in an absolute form: it is either right or wrong. Students, in this case, will interpret differences in opinion between authorities as differences, not about the facts, but about detail arising from inappropriate application, misinformation or misunderstanding. This way of knowing assumes that all problems are well-structured and thus evidence is not needed to reach a conclusion.

A transitional way of knowing accepts that knowledge is certain in some areas but uncertain in others. Disagreements between authorities in areas of uncertainty are considered to arise because the facts are not yet known. It is assumed that in due course better evidence, techniques or theories will produce accepted facts.

An independent way of knowing represents a shift to an assumption that knowledge is mostly uncertain. This is accompanied by a recognition that authorities are not necessarily the sole source of knowledge. Thus a student's opinion may be regarded as valid as that of an authority and there tends to be an 'anything goes' attitude. In this context the role of evidence is diminished.

A contextual way of knowing also assumes that knowledge is uncertain. However, the 'anything goes' attitude is replaced by a belief that knowledge is contextual and one judges knowledge on the basis of evidence in context. Thus knowledge claims can only be understood in relation to the context in which they arise.

There is a broad convergence in prior research about the nature of variation in these different ways of knowing, but there is less agreement on what these represent. Belenky *et al.* (1986) and Baxter Magolda (1992) distinguish ways of knowing from

⁴ Gender-related patterns have been identified within ways of knowing. See Baxter Magolda (1992, p.369f) for an extended discussion of this issue. We identified gender-related patterns within the data. However, this aspect of the findings is beyond the scope of this research report.

skills. They use the term 'ways of knowing' to describe the different *perspectives* from which individuals view the world and draw conclusions about truth, knowledge and authority. They also argue that ways of knowing are bound up with self-concept, or identity. Thus Baxter Magolda, in describing the goal of learning, refers to the work of Kegan (1994) and uses his term of 'self-authorship'. The latter is the ability to reflect on one's beliefs, organise one's thoughts and feelings in the context of, but separate from, the thoughts and feelings of others, and literally to make up one's own mind.

'self-authorship extends beyond critical thinking or making informed judgments because it is not a skill; it is, rather, a way of making meaning of the world and oneself. This concept is inextricably linked to [] – students' epistemological development.' (Baxter Magolda, 1992, p.6)

A way of knowing thus simultaneously comprises three aspects:

- cognitive (how one makes meaning of knowledge)
- interpersonal (how one views oneself in relation to others)
- intrapersonal (how one perceives one's sense of identity).

Although these three aspects are referred to separately at certain stages within this report, they are assumed to be mutually constitutive and mutually confirming.

How do these 'ways of knowing' affect a student's approach to learning?

Students' ways of knowing will act as a lens through which they view the world. Thus they affect how students see key aspects of their learning environment and the way in which they approach their learning. These key aspects comprise the way in which a student views, or frames:

- the role of the learner
- the role of peers
- the role of instructor
- evaluation (of learning)
- the nature of knowledge.

Table 2 shows how students' perceptions of these key aspects and their approaches to learning vary according to their way of knowing. Because each way of knowing provides a lens through which the learning environment is viewed, the task of the educator is not straightforward. A student with an absolutist or transitional way of knowing will not necessarily react positively to an open discussion forum. The lecturer will be deemed to have all the answers, and the role of the lecturer will be considered to be that of conveying those answers to the student. Thus, for example, Gwen likes 'teachers who will give you as much as you need and not just leave you with a little small idea and try and have you talk it out' (Baxter Magolda, 1992, p.31). Where the lecturer attempts to encourage discussion about different ideas or theories, the student may become impatient and wait for the 'right' idea to be conveyed. A student might refer to 'discussion' as being useful, but it might, in fact, transpire that the purpose of discussion is to help the student remember the 'facts' rather than to evaluate different theories. One can see, therefore, that an absolute knower will not

necessarily take kindly to an instructor who encourages debate and questions. Such activities would only slow down the effective communication of the knowledge that the student needs. This student is likely to provide poor feedback on the teacher in a course evaluation questionnaire (Clouder, 1998).

Ways of knowing thus frame the way in which a student views the learning environment. The development of a reflective capacity might thus be an aim of higher education but, dependent on a student's way of knowing within business and accounting, receptivity to this aspiration is likely to vary. If students possess an absolute way of knowing, then they are unlikely to either cope well with problem-solving in conditions of uncertainty, or react positively to challenges to deeply-held assumptions. By way of contrast, students who possess an independent or contextual way of knowing are likely to feel more confident, and be more effective, in such a situation. Thus a development of a reflective capacity will require that a student moves from an absolute way of knowing towards a contextual way of knowing.

Domains	Absolute knowing	Transitional knowing	Independent knowing	Contextual knowing
Role of learner	Obtains knowledge from instructor	Understands knowledge	Thinks for self Shares views with others Creates own perspective	Exchanges and compares perspectives Thinks through problems Integrates and applies knowledge
Role of peers	Share materials Explain what they have learned to each other	Provide active exchanges	Share views Serve as a source of knowledge	Enhance learning via quality contributions
Role of instructor	Communicates knowledge appropriately Ensures that students understand knowledge	Uses methods aimed at understanding Employs methods that help apply knowledge	Promotes independent thinking Promotes exchange of opinions	Promotes application of knowledge in context Promotes evaluative discussion of perspectives Student and teacher critique each other
Assessment	Provides vehicle to show instructor what was learned	Measures students' understanding of the material	Rewards independent thinking	Accurately measures competence Student and teacher work toward goal and measure progress
Nature of knowledge	Is certain or absolute	Is partially certain and partially uncertain	Is uncertain – everyone has own beliefs	Is contextual – judge on basis of evidence in context

Table 2: Baxter Magolda's Epistemological Reflection Model (Baxter Magolda, 1992, p.30, amended)

Baxter Magolda's research, a large-scale interview study with 101 students across a variety of subjects, was conducted in the US (within four year undergraduate courses). Figure 1 illustrates her findings. She found that the absolute way of knowing was most prevalent in the first year of college (68 per cent of students) declining over the next three years to 46 per cent, 11 per cent and two per cent respectively. Transitional knowing increased in the first three years of college (32 per cent, 53 per cent and 83 per cent) and declined slightly in the final year (80 per cent). Independent knowing was scarcely evident in the first three years of college and represented 16 per cent of students in the final year. Contextual knowing was rarely evident comprising just two per cent in the final year. It can be seen that, based on Baxter Magolda's findings⁵, one might assume that in the final year of a degree course most students will fall into the transitional category. Yet the development of a reflective capacity will be best supported by an independent or contextual way of knowing.

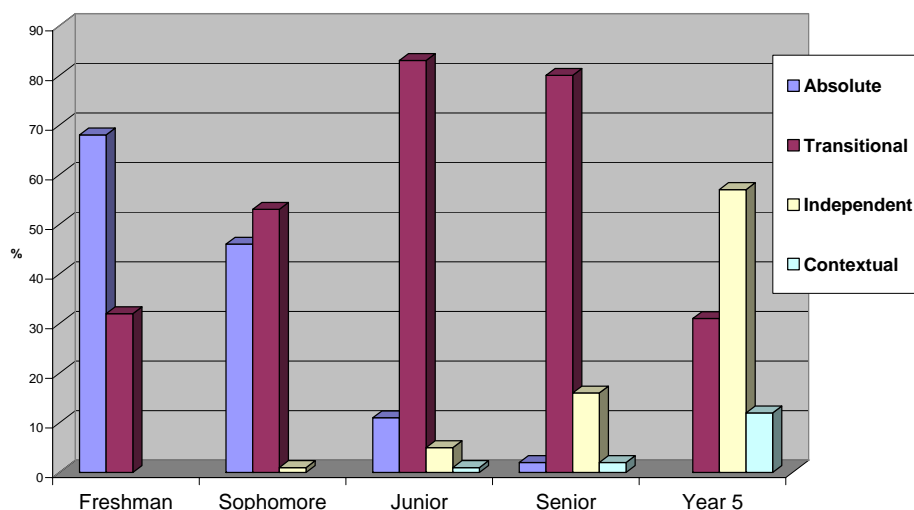


Figure 1 Ways of knowing by year (data taken from Baxter Magolda, 1992, p.70)

There is a growing body of evidence that students' beliefs about knowledge influence their learning (Hofer, 2004a). Baxter Magolda's work has shown how a student's epistemological beliefs or 'ways of knowing' are related to approaches to learning and to academic performance. However, it is recognised that there is likely to be disciplinary and cultural variation in findings. Zhang and Watkins (2001) found a relationship between cognitive development and approaches to learning. They also identified a relationship between cognitive development and achievement for an American group of students but not for a Chinese group. Lucas and Meyer (2005) found that accounting students who reported an absolute way of knowing also reported a surface approach to learning, and those students who reported a more relativistic and committed way of knowing also reported a deep approach to learning. Tolhurst (2007) also found that students with more complex beliefs about knowledge achieved higher final grades. However, findings in this area are difficult to compare

⁵ No large-scale research study has been conducted within the United Kingdom.

since a variety of instruments have been used to identify beliefs about knowledge or cognitive development.

What are the characteristics of contexts and events that 'impact' upon existing ways of knowing?

The development of a reflective capacity involves issues of identity or view of self, and change is not likely to be straightforward. Brookfield (1987) observes that 'making the attitudinal shift to reinterpret as culturally induced what were initially held to be personally devised value systems, beliefs, and moral codes can be highly intimidating' (p.17). Thus there may be denial, or defensive responses before other belief or value systems are considered (if at all). Perry (1981) talks about the process of grief and sense of loss that is involved. It may be that conflicting feelings and ideas have to be integrated or reconciled, and the student has to become comfortable with the new situation. Savin-Baden (2000, p.87) characterises this as involving 'disjunction', involving a fragmentation of part of, or all of, the self. The belief systems involved may be so fundamental that the students see themselves as different persons. This is supported by the sixth conception of learning identified by Marton *et al.* (1993): learning comprising changing as a person.

Baxter Magolda found that a move towards an independent way of knowing occurred after graduation for most students. Based on her findings from interviews following graduation, she identified several changes that were likely to support moves towards independent ways of knowing. These include moving to new environments such as work, studying as a postgraduate or taking part in voluntary activities. Working in such environments can reinforce self-confidence and self-efficacy. As discussed above, ways of knowing comprise three aspects:

- cognitive (how one makes meaning of knowledge)
- interpersonal (how one views oneself in relation to others)
- intrapersonal (how one perceives one's sense of identity).

It would appear that the post-graduation environments (or co-curricular activities during undergraduate study) might provide the interpersonal and intrapersonal development required to support a move towards an independent way of knowing. Environmental features that support a growing self-efficacy include: the organisation and evaluation of one's own work; and the need to evaluate multiple perspectives, choose plans of action accordingly and take independent decisions.

Similarly Zhang and Watkins (2001) found that students who indicated a greater extent of work and leadership experiences were more likely to exhibit independent or contextual ways of knowing. Bauer *et al.* (2004) assumed that epistemological beliefs would be relevant for workplace learning. They proposed, first, that such beliefs would influence the extent to which students sought opportunities to profit from workplace learning and, second, that they would influence whether a student even envisaged the workplace to be a learning environment. However such a relationship was not found.

They concluded that their findings showed the influence of epistemological beliefs on workplace learning might be less important than theory suggests. Thus an assumption underlying the design of this project is that interpersonal and intrapersonal development is more likely to be stimulated within a work-based placement than in an academic environment. The role of work-based placement learning is discussed in the next section.

2.3 The role of work-based placement learning

The context of placement learning in UK undergraduate education

Work-based placement learning has long been a feature of business and management education, usually being a compulsory requirement within most business studies degrees. In many accounting degrees the placement is offered as an option, but is not compulsory. It is an institutionalised procedure and, accordingly, is subject to Quality Assurance Agency for Higher Education (QAA)⁶ Code of practice and subject benchmark statements. The QAA *Code of practice for assurance of academic quality and standards in higher education* (2001) defines placement learning as follows:

‘a planned period of learning, normally outside the institution at which the student is enrolled, where the learning outcomes are an intended part of a programme of study. It includes those circumstances where students have arranged their own learning opportunity with a placement provider, with the approval of the institution.’

It is therefore not intended to cover co-curricular learning outside an institution that is not a planned part of a programme of study, such as part-time, term-time and vacation work that students have arranged for themselves. Placements can vary in their timing and in their length. The focus of this research study is the ‘sandwich degree’ where the placement is a period of supervised experience, usually a minimum of 40 weeks, taking place in the third year within a four-year undergraduate degree course⁷.

Placement learning objectives

The onus is on each degree programme to set out the learning objectives for placements. However, they will operate within a framework set out by the QAA. The QAA itself states:

⁶ The QAA was established in 1997 to provide an integrated quality assurance service for UK higher education. It is an independent body funded by subscriptions from universities and colleges of higher education (the subscribers), and through contracts with the main higher education funding bodies.

⁷ There are potentially four years to business and accounting degree courses. Level 1 and level 2 relate to years 1 and 2. A placement year takes place in year 3. Level 3 refers to the final year.

‘Placements serve a variety of purposes. The intended learning outcomes from a placement may be highly specific, for example the development of practical skills and competencies that will be required for practice in professional or other employment; or they may be more general, for example the development of an understanding of the cultural or employment context of an academic discipline. The institution should clearly identify and approve the intended learning outcomes, whether specific or general.’ (QAA, 2001, para 9)

Yet although placement learning is a well-established feature of undergraduate business programmes, the QAA subject benchmark statement for General business and management programmes of study includes only one reference to placement as follows:

‘There should be integration between theory and practice by a variety of means according to the mode of delivery including, for example, work-based learning, work experience or placement, exposure to business issues including employer-based case studies, visits and inputs from visiting practising managers.’ (QAA, 2007, para 4.2)

There is no reference to placement learning within the QAA subject benchmark statement for Accounting. However, where accounting programmes permit a placement these usually follow the practice of business and management programmes, and the codes laid down by QAA.

The integration of theory and practice thus constitutes the only explicit reference to the purpose of placement learning within the subject benchmark statements. However, the benchmark statements also focus on an area that is thought to be highly relevant to placement: the development of key skills. The benchmark statements for both General business and management and Accounting set out a series of key skills as learning outcomes. The subject benchmark statement for General business and management (QAA, 2007) contains the following statement: ‘Business and management degrees are strongly related to practice and therefore there should be a strong link between the development of skills and employability of graduates.’ (para. 3.8)

An illustrative list of these skills comprises:

- cognitive skills of critical thinking, analysis and synthesis
- effective problem-solving and decision-making
- effective communication
- numeracy and quantitative skills
- effective use of ICT
- effective self-management
- effective performance within a team environment
- interpersonal skills of effective listening, negotiating, persuasion and presentation
- ability to conduct research into business and management issues

- self reflection and criticality including self awareness, openness and sensitivity to diversity relating to people, cultures, business and management issues
- learning to learn and developing a continuing appetite for learning.

(QAA subject benchmark statement for General business and management, 2007)

The QAA subject benchmark statement envisages two roles for placement learning. One is explicitly stated: as a means of achieving the integration of theory and practice. The second is implicit: the development of skills that are relevant to employability. Both of these roles are relevant to the development of a reflective capacity. The integration of theory and practice involves an evaluation of assumptions underpinning theory and the testing of those assumptions in practice. Skills to be developed include the cognitive skills of critical thinking, analysis and synthesis. However, they also include the skill of learning to learn, self-awareness and interpersonal skills. Thus the three aspects of a way of knowing are acknowledged: cognitive, interpersonal and intrapersonal.

Research findings on the impact of placement learning

There is a relatively small body of research into the impact of placement experience on the learning of students. Such research has investigated three main aspects of placement. First, there have been a range of studies over the last two decades on how placement prepares students for, and makes them more effective in, the workplace after graduation. These studies have tended to focus upon skills development and enhancement (Bourner and Ellerker, 1993a, 1993b; Harvey *et al.*, 1997; Bowes and Harvey, 1999; Mason *et al.*, 2003). However, these studies have not addressed the holistic issue of the way in which such skills may *support* the development of a reflective capacity.

More recently, there have been studies into the relationship between placement and subsequent academic performance. Their findings are mixed, but there is now a growing body of evidence that suggests there is a positive relationship between placement and academic performance. In an early study, Duignan (2003) failed to find a positive impact of placement on the academic performance of business undergraduates. In a subsequent investigation that sought to improve the nature of the placement by changing the learning environment, he also failed to find a positive relationship. Consequently he suggested that possibly 'the qualities that are required for a successful performance in the placement domain, and the skills and competencies that are engendered by successful placements are not easily translatable into academic performance' (Duignan, 2003, p.345). He also noted that there was some element of self-selection in that students who chose placement may be more academically able than their non-placement colleagues. However, he also found that non-placement students seem to show more 'gain' in academic performance in their final year – which he describes as a 'somewhat unexpected result' (p.345).

However, subsequent studies contradict aspects of this earlier work. Gomez *et al.* (2004) investigated the link between placement and academic performance for bioscience students over a two-year period. They found that, on average, placement students gain an advantage of nearly four percentage points in their final-year performance. Since the final year contributed 75 per cent towards the final degree classification, the impact of this may be that placement students may benefit by crossing the threshold into a higher degree class. Moreover, their results also indicated that there was a significant positive effect of the placement regardless of initial academic ability.

Mandilaras (2004) similarly conducted an enquiry into the role of placement in degree performance, this time over a one-year period, for economics students. He found that participation in placement significantly increased the chances of obtaining an upper second class degree by up to 30 per cent. The probability of obtaining a lower second was also lower for a placement student. Rawlings *et al.* (2005) conducted a study with information systems students over a four-year period. They also found that placement students benefited from this: those who scored above 50 per cent at level 2 showed a substantially greater probability of graduating with a first class or second class (upper division) honours degree than non-placement students.

Finally, SurrIDGE (2007) investigated the comparative performance of placement and non-placement students over a three-year period within an accounting degree. He found that placement students with an average level 2 mark of less than 70 per cent benefited compared with non-placement students with a similar average level 2 mark. There was also a gender effect with female students benefiting more than males. Placement was found to have a significant positive effect on final-year marks. For example, placement students gained an advantage of nearly four percentage points in comparison with non-placement students. As with the Gomez *et al.* (2004) study, final-year marks in that institution had a 75 per cent weighting in determining degree class. Hence placement can have a major impact, allowing students to cross the threshold to a higher degree class.

Although there is now a growing body of evidence that the academic performance of students may be enhanced by the undertaking of a placement, there is little evidence to indicate why this might be so. Little and Harvey (2006, p.2) point out that there is very little research that 'explicitly explores how the placement experience translates into academic development' and 'much is taken for granted, the observed maturity of undergraduates returning from a period of work placement is assumed to carry over into a more studious or reflective approach to learning but there is little direct evidence to be found of this in the literature'.

Their study was designed to investigate students' perceptions of learning from placements and the extent to which students try to transfer and build on such learning in subsequent stages of the taught curriculum. It involved single interviews with 82 students from seven higher education institutions over six subject areas (including business). They found that personal development was a major element of the placement experience. Such personal development embraced increased confidence, and development of interpersonal and organisational skills.

However, in the interviews, students placed less emphasis on intellectual skills development. There was little indication that students had developed their academic abilities of analysis, critique and synthesis, and they found a 'seeming lack of articulation of intellectual development' (Little and Harvey, 2006, p. 61). Notwithstanding this, they found that the overwhelming majority of students related positive changes in their approaches to study as a result of their placement experiences. Such positive changes arose from confidence, an increased motivation to study and a more active engagement with learning tasks. This "included a better personal sense of the subject matter, or of a wider reading around a topic, or a greater readiness to question and critique taught material. In this way, students were now more likely to 'own' the learning rather than 'just accept it'" (p.61).

Motivation will be a central issue with regards to whether students 'own' their learning. Yet this is not an issue that has been much addressed within the placement or ways of knowing literature. Bendixen and Rule (2004) sought to develop a holistic understanding of beliefs about knowledge and, in so doing, they considered the role of *relevance* in conditions for the change of beliefs. Personal relevance includes having a stake in the outcome, an interest in the topic, emotional involvement and/or high self-efficacy.

To conclude, there is a range of evidence to support the role of placement in developing and enhancing skills, and making students more employable. There is also a growing body of evidence that demonstrates a relationship between the experience of placement and improved academic performance. However, there is relatively little evidence about the ways in which placement might affect subsequent academic development.

2.4 Conclusion

In this chapter, what is meant by the term 'development of a reflective capacity' has been considered, findings from the literature on ways of knowing and the development of a reflective capacity have been reviewed, and the role of work-based placement learning has been discussed.

Although work-based placement learning is a well-established feature of the undergraduate curriculum there is a reticence within official QAA documents to acknowledge the full potential of how it may contribute to student learning. While there is a relatively large body of research on the ways in which *skills* are developed during placement, there is much less research on how placement contributes to *academic development* generally, and the *development of a reflective capacity* in particular. However, a growing number of studies indicate that placement students may perform better in their final year than non-placement students. This, in itself, indicates that this is a relevant area for further enquiry.

This leads to the objectives of this project, which are to enquire into:

1. the nature of the reflective capacity brought by business studies and accounting undergraduates to their work-based placement and/or their final-year studies
2. the elements within the work-based placement that support, encourage or inhibit the development of a reflective capacity
3. how the reflective capacity brought by undergraduates from their work-based placement is related to their academic performance in their final year of undergraduate study.

Two strands of research were adopted in this project. Strand 1 evaluated a questionnaire for reflective thinking (QRT) designed to quantitatively measure aspects and extent of reflective thinking (Kember *et al.*, 2000). This relates to research objectives (1) and (3) above. The questionnaire was administered to students at the beginning and end of their work-based placement, and to students at the beginning and end of their final-year studies. Strand 1 and its findings will be discussed in Chapter 3.

Strand 2 enquired into the nature of students' reflective capacity, using interviews to explore their ways of knowing and their experiences during their work-based placement. This relates to research objectives (1), (2) and (3) above. Interviews were conducted with students at the commencement and latter stages of their work-based placements, and with students who were in their final year at university and had previously completed a placement. Strand 2 and its findings will be discussed in Chapters 4 to 7.

3 Strand 1: the evaluation of a questionnaire to quantitatively measure levels of reflective thinking and the findings

3.1 Research objectives

The aim of Strand 1 of the project was to evaluate a questionnaire designed to quantitatively measure aspects of reflective thinking (Kember *et al.*, 2000). This relates to research objectives (1) and (3) below, i.e. to enquire into:

1. the nature of the reflective capacity brought by business studies and accounting undergraduates to their work-based placement and/or their final-year studies
2. the elements within the work-based placement that support, encourage or inhibit the development of a reflective capacity
3. how the reflective capacity brought by undergraduates from their work-based placement is related to their academic performance in their final year of undergraduate study.

This chapter will discuss the research method and findings of Strand 1 of the project. First, the research objectives and methodology will be discussed, focusing on the choice of instrument to measure the level of reflective capacity. Second, the administration of the questionnaire and the findings arising from the data analysis will be presented. Finally, the conclusions that arose from those findings will be discussed.

3.2 Research method: the choice of an instrument to measure the level of reflective capacity

Although many academic and professional courses seek to develop students' capacity to reflect, it is surprising that there are relatively few questionnaires available to identify the extent to which students engage in reflection. This becomes less surprising when one looks at the recent work of Moseley *et al.* (2004). They conducted an extensive review of thinking skills frameworks and noted the lack of evaluative research in this area. Consequently, on reviewing the available questionnaires, only one was identified that was appropriate for the purposes of this study: the Questionnaire for Reflective Thinking (QRT)⁸ (Kember *et al.*, 2000).

The constructs measured by the QRT draw, in particular, on the work of Mezirow (1991). Thus it is compatible with the theoretical framework upon which the qualitative element of this project is based. The QRT was designed as a practical instrument for determining whether students were being prompted to reflect upon their practice. It was trialled and revised over a number of years and finally tested with a sample of

⁸ A copy of the QRT is included in Appendix 1.

303 undergraduate and postgraduate students in a health sciences faculty in Hong Kong.

The QRT contains 16 statements about actions and modes of thinking during a course of study. The four constructs of habitual action, understanding, reflection and critical reflection are represented by four scales, each containing four statements. These are set out Appendix 2 and Table 3. These statements are presented randomly in the questionnaire and students are asked to indicate their level of agreement with each statement using a five-point Likert scale. As is the norm with this type of questionnaire, students are asked to respond quickly rather than deliberate over each response. Scores are then allocated to the Likert scale, ranging from 'definitely agree' (scoring five) and 'agree with reservation' (scoring four), to 'disagree with reservation' (scoring two) and 'definitely disagree' (scoring one). The mid-range response is 'only to be used if a definite answer is not possible' (scoring three).

Non-reflective action	Habitual action	The habitual application of a routine that is performed automatically with little conscious thought. Previously ill-structured tasks become well-structured with experience.
	Understanding	The use of existing knowledge without any attempt to appraise its relevance or significance in the current context.
Problem-solving	Reflection	A questioning of assumptions about the content or process of problem-solving. It involves making a situation 'problematic'.
Problem-posing	Critical reflection	A questioning of premises - assumptions at a deeper level e.g. about the nature of knowledge, areas of applicable knowledge and the nature of 'evidence'.

Table 3: The four constructs within the Questionnaire for Reflective Thinking

The design of an instrument such as the QRT, which uses statements with which students indicate the extent of their agreement, can be used either to test a theoretical idea or to confirm initial qualitative findings. Kember *et al.* (2000) initially acquired qualitative data from students' reflective journals, student interviews and classroom observation. However, in analysing this data they were informed by types and levels of reflective thinking identified by Mezirow (1985, 1991, 1992). This led to trialling of statements and the final identification of the four constructs.

In addition, Leung and Kember (2003) also used the QRT to examine the association between students' approaches to learning and stages of reflective thinking. They administered the QRT and the Study Process Questionnaire (SPQ) (Biggs, Kember and Leung, 2001) to a cohort of 402 undergraduates from all years of study from a health sciences faculty in a Hong Kong university. The SPQ is a well-established instrument used to identify surface and deep approaches to learning. They found that the Habitual Action scale correlated significantly to the surface approach to learning and that the Understanding, Reflection and Critical Reflection scales correlated significantly with the deep approach and had no correlation to the surface approach.

3.3 The administration of the questionnaire and analysis of the findings

The overall research objective was, first, to evaluate the appropriateness of the QRT for the identification of levels of reflective thinking. Following on from that it was intended to use the QRT to:

- a) enquire into the nature of the reflective capacity brought by business studies and accounting undergraduates to their work-based placement and their final-year studies
- b) identify whether there is a relationship between the level of reflective capacity and academic performance in the final year of undergraduate study.

How the QRT was administered, the initial work on the suitability of the QRT and the exploratory statistical analyses conducted using the QRT are described below.

The administration of the QRT

The QRT was administered as follows:

	Total cohort size*	1 st issue		2 nd issue	
		Timing of issue	n =	Timing of issue	n =
Students starting (1 st issue) and completing (2 nd issue) placement	260	June 2005	207 (80%)	May/Sept 2006	165 (64%)
Placement students starting (1 st issue) and completing (2 nd issue) final-year studies	280	October 2005	230 (82%)	March 2006	152 (54%)
Non-placement students starting (1 st issue) and completing (2 nd issue) final-year studies	520	October 2005	161 (31%)	March 2006	98 (19%)

* Rounded to nearest 10

Table 4: The administration of the QRT: student cohorts and timing

In relation to placement students, the QRT was administered at a research methods lecture in June 2005 to students who had just completed their level 2 studies and were about to start their placements. The lecture was part of a series of sessions to provide guidance to students on research and data collection methods relating to their placement project. The QRT was completed under controlled conditions within the lecture theatre and all questionnaires were collected at the end of the lecture. In accordance with the university's ethical guidelines for the conduct of research, students were informed that they could choose whether they wished to participate in the study. Not all placement students attended the lecture and the response rate was approximately 80 per cent. The second issue of the questionnaire was initially administered to placement students in May 2006 as part of their placement information packs. However, this produced a low response rate as many students either did not complete it or did not return it with their completed placement portfolios. Consequently the QRT was then re-administered to returning placement students at the start of their final year in September 2006.

The QRT was administered to final-year students at the start of a series of core lectures in October 2005 (the second week of the first term). The questionnaire was completed in controlled conditions within the lecture theatre and all questionnaires were collected at the end of the lectures. However, not all students attended the lectures and the response rates relating to final-year placement and non-placement students are shown in Table 4 above. The second issue of the questionnaire was administered at the end of the spring term in March 2006, again in a lecture. This led to a response rate for placement and non-placement students of 54 per cent and 19 per cent respectively.

Students were also asked to provide background data about themselves while completing the QRT. The following data were collected:

- degree route (e.g. BA Business Studies, BA Accounting and Finance, etc.)
- age
- gender
- involvement in voluntary activities
- previous part-time and full-time work experience.

Initial validation of the questionnaire

The QRT provides students with what Baxter Magolda (1998, p.353) terms a 'recognition' task, or what is also termed an opportunity to 'self-report'. Learners indicate the strength of their agreement or disagreement with statements that describe beliefs, motivations and learning processes that might apply to them in particular contexts. Clearly, a questionnaire is a highly practical way of allowing large numbers of students to supply a self-report. However, the validity of such a questionnaire is generally dependent on the extent to which the questionnaire statements provide an adequate and authentic representation of constructs already identified via qualitative research, and the degree to which such items capture *statistical variation* in students' reported experiences.

The design of the QRT is well-documented in the literature. Initial findings have emerged from the health sciences faculty in a Hong Kong university and it has been used in conjunction with the SPQ. This has led Kember *et al.* (2000) to conclude that the QRT has value as a both a diagnostic and a research tool for the investigation of reflective thinking. However, the QRT has not been extensively tested within the higher education sector in countries other than Hong Kong. Therefore, statistical analyses were initially carried out to test the reliability of the four individual scales representing the four constructs. Each scale contains four statements that, while different, should have a common meaning. Thus when a student responds to each of the four statements comprising a scale, we would expect to see a similar response for each statement. After all, each statement within a scale purports to describe the same type of thinking and behaviour.

A statistical technique known as Cronbach's alpha was used to compute the correlation between the responses (weighted one to five) for each of the four statements in each scale. Details of Cronbach's alpha, means and standard deviations are provided in Table 5. Nunnally (1978) suggests that a coefficient α value of 0.70 is the minimum standard for a measure producing scores that demonstrate satisfactory internal consistency and reliability, although within educational research a value of 0.50 is held to be generally acceptable (Tait *et al.*, 1998, p.266).

Scale	Placement 1 st issue	Placement 2 nd issue	Final year 1 st issue	Final year 2 nd issue	Kember <i>et al.</i> (2000)
	n = 207	n = 165	n = 391	n = 250	n = 265
Habitual Action	.40	.49	.41	.49	.62
Understanding	.70	.65	.55	.69	.76
Reflection	.73	.73	.69	.65	.63
Critical Reflection	.72	.70	.69	.74	.68

Table 5: Cronbach's alpha values

A review of Cronbach's alpha values indicated that those for Habitual Action are unacceptably low in both the first and second issues for students undertaking their placement year and those in the final year. Cronbach's alpha values for Understanding are marginal in the final-year first issue, but those for Reflection and Critical Reflection are acceptable.

A review of the distribution of responses within each scale casts some light on the low Cronbach's alpha value and provides evidence about the ability of each scale to identify variation within the student cohort. The table in Appendix 3 sets out the frequency of responses by category for the first and second issue of the questionnaire to the final-year students, for illustrative purposes.

The Habitual Action scale within both issues shows a marked difference in the distribution of responses for statements one and five when compared with responses for statements nine and 13. It appears that this scale does not have satisfactory internal consistency (as seen above there is a low Cronbach's alpha for each issue) or a satisfactory distribution of responses. It would appear that students attribute different meanings to statements one and five, and to nine and 13. The variation in response to these two groups of statements warrants further investigation.

Within the Understanding and Reflection scales, the responses are heavily weighted towards scores 4 and 5 ('agree only with reservation' and 'definitely agree') in both issues. Thus there appears to be relatively little scope for the identification of variation within the student cohort at one point in time, or to identify changes in student responses between different points in time. The Critical Reflection scale shows a wider, more evenly balanced, response distribution for both the first and second issues. Thus it allows for the identification of a range of variation within the student cohort and provides more scope for the identification of changes in student responses between different points in time.

It is apparent from this initial review of the QRT that all but the Critical Reflection scale performed less than satisfactorily. A range of further statistical analyses were conducted on the QRT data. This involved the partitioning of data on the basis of degree route, involvement in voluntary activities, part-time and full-time work experience, and gender. This further analysis will not be described in this report. This did not produce any significant findings, but there are indications that issues of gender and voluntary work might benefit from further exploration. The disciplinary context of students should be investigated in relation to the QRT, and this is speculated on further in Lucas and Tan (2006b)⁹. While unable to rely on the scales of Habitual Action, Understanding and Reflection within this study, exploratory statistical analyses were applied to the Critical Reflection scale.

Further exploratory statistical analyses on the Critical Reflection scale and its relationship to academic performance

A range of analyses were carried out, the detail of which is provided in Appendix 4. The findings are summarised here (the corresponding section in Appendix 4 is provided in brackets):

- at the start and end of the final year there is no significant difference in mean critical reflection scores between the students who undertook a placement and those who did not (1)
- the Critical Reflection score at the end of the final year is not significantly correlated with the final-year average mark (2)
- for placement students there is no significant relationship between the level 2 average mark and the Critical Reflection score at the start of the placement year (3)

⁹ The statistical analysis is available to researchers upon request and we hope that it will contribute to the further development of the QRT.

- there is no significant change in the mean Critical Reflection score over the placement year (4).

Descriptive statistics indicate that the mean level 2 mark for those that did not undertake a placement is essentially the same mean value as those that did (5). However it would appear that the mean final-year mark is higher in the placement group compared with the non-placement group (5). The analysis reflects the ‘within subjects’ nature of the level 2 and level 3 data matched on student and the ‘between groups’ effect due to placement status. This is delineated graphically in Figure 2.

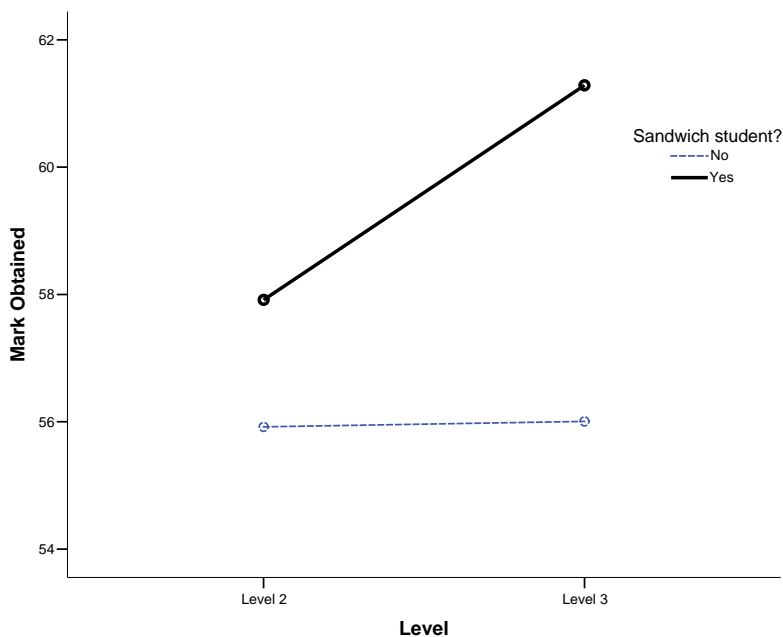


Figure 2: Mean mark according to level and placement status

Regression analysis (6) indicates that those students who went on placement had an average final-year mark 3.681 percentage points higher than those who did not go on placement ($t = 3.015$, $df = 163$, $p = 0.003$, two-sided) after allowing for the linear effect due to level 2 average.

These results thus support the findings of Gomez *et al.* (2004), Mandilaras (2004), Rawlings *et al.* (2005) and Surridge (2007), who all found that participation in placement significantly improved academic performance in the final year. Gomez *et al.* (2004) found that, on average, placement students gain an advantage of nearly four per cent in their final-year performance. Mandilaras (2004) found that participation in placement significantly increased the chances of obtaining an upper

second class degree by 30 per cent. The probability of obtaining a lower second was also lower for a placement student. Rawlings *et al.* (2005) found that placement students (who scored above 50 per cent at level 2) showed a substantially greater probability of graduating with a first class or second class (upper division) honours degree than non-placement students. SurrIDGE (2007) found that placement students with an average level 2 mark of less than 70 per cent benefited compared with a non-placement student with a similar level 2 average mark. Placement was found to have a significant benefit on level 3 marks. For example, placement students gain an advantage of nearly four per cent. In this study, as with the Gomez *et al.* (2004) and SurrIDGE (2007) studies, final-year marks have a 75 per cent weighting when determining degree class, hence placement can have a major impact allowing students to cross the threshold to a higher degree class.

3.4 Conclusions

Findings from this strand indicate that, within the context of a business and accounting undergraduate degree programme, the QRT is not an appropriate instrument for the identification of levels of reflective thinking so far as the Habitual Action, Understanding and Reflection scales are concerned. However the Critical Reflection scale appears to have a reasonable consistency and was thus used within a range of exploratory analyses. The findings indicate that students who undertake placement do achieve a better level of academic performance than those who do not. However, assuming that the Critical Reflection scale provides an adequate measure for critical reflection, it would appear that this better level of performance is not due to a developing level of critical reflection.

4. Strand 2: an enquiry into students' ways of knowing and their experience of work-based placement learning – research method

4.1 Research objectives

Strand 2 formed the main part of the research project: an enquiry into the nature of students' reflective capacity through an exploration of their ways of knowing and their experience of work-based placement. This relates to research objectives (1), (2) and (3) below, i.e. to enquire into:

1. the nature of the reflective capacity brought by business studies and accounting undergraduates to their work-based placement and/or their final-year studies
2. the elements within the work-based placement that support, encourage or inhibit the development of a reflective capacity
3. how the reflective capacity brought by undergraduates from their work-based placement is related to their academic performance in their final year of undergraduate study.

In this chapter, the research methodology and method that underpin this strand is discussed in detail. Such detail is necessary to provide a *justification* for the adoption of this approach. This will allow the reader to assess the extent to which:

- the research investigates what it sets out as the *focus* of enquiry
- the research method is *enacted* in a way that retains credibility in what it seeks to achieve.

In addition, key features of the *context* for the research will be outlined, since the findings of this strand will only have value to the extent to which they are related to the context that gave rise to them.

4.2 Research methodology and method

Research on students' ways of knowing is concerned with how students make meaning of their experience and how this is related to how they view their learning. This requires careful listening to what students have to say about their experience and involves a suspension of judgment in order to empathise with, and subsequently describe, that experience. The aim is to allow the student's own frame of reference to emerge. This strand of the research project therefore falls into the naturalistic area of enquiry, and implies a certain type of research method: the semi-structured extended interview.

Such an interview usually lasts approximately an hour, and provides a relaxed context within which students can talk about their experience and an opportunity for the interviewer to prompt for elaborations and explanations. It is worth stressing what is

meant by the term 'experience' in this context. Boud *et al.* 1993 (p.6) define it as 'a meaningful encounter. It is not just an observation, a passive undergoing of something, but an active engagement with the environment, of which the learner is an important part'. Sometimes a question may elicit a short, unengaged response, and further probing or prompts may be required before the interview alights upon something that appears to be meaningful for the student.

The semi-structured interview presents somewhat of a paradox. It is essential that there is a free flow that allows the student to talk about meaningful aspects of their learning. However, this requires a form of careful planning on the part of the interviewer. As it is not possible to predict a student's responses, the interview becomes an act of improvisation. As Wengraf (2001, p.5) observes, semi-structured interviews are much more demanding than structured interviews and 'to be successful require:

- as much preparation before the session, probably and certainly
- more discipline and more creativity in the session, and certainly
- more time for analysis and interpretation after the session'.

Preparation involved the development of a list of prompts to provide a shape and focus to the interview. These were derived from the interview protocol developed by Baxter Magolda (1992, p. 411f) within her own research. This protocol was amended in minor ways to allow for differences in terminology and context. It consists of a series of main questions followed by possible prompts (see Appendix 5). The protocol was organised so that students had the opportunity to talk about the range of domains to which ways of knowing might relate (set out above in Table 2 on page 20): the roles of the learner, peers, and lecturer; assessment; and the nature of knowledge. There was also a focus on what might be termed 'critical incidents' such as key decisions, significant experiences or encounters, and moments of surprise or shock that might lead to changes in ways of knowing.

Each interview was preceded by a statement of context, indicating that the student should feel free to talk about any experiences or ideas that came to mind. This was to ensure that students felt free to talk broadly about their experience. It was also preceded with a reassurance as to confidentiality. All interviews started with the first main question, but thereafter the interview was shaped by each student's response. Thus the order in which main questions were asked varied. In most interviews it was possible to introduce the main questions in a natural way as they became relevant to what the student was talking about.

Creativity was required during the interview. During the first interview with each student it became apparent that it was not as easy to identify their beliefs about knowledge as anticipated. Students were also not as 'reflective' as anticipated. Consequently, additional probing and exploratory questions were asked within each interview in an attempt to identify further aspects of the student's frame of reference. Although this study was initially designed to investigate epistemological beliefs in the context of ways of knowing, initial experience within the interviews highlighted that

other facets of ways of knowing might need to be investigated. In addition, it was important to identify the students' frame of reference as a way of setting on one side our own presuppositions about what we might find. Consequently in the follow-up interviews, the prompt list was still used, but we were careful to ensure that students were given a full opportunity to talk about their experience.

Analysis and interpretation took place as a part of the planning for the second interview with each student, including a review of the prompt list and a careful, empathetic reading of the first interview. This was not only to re-acquaint ourselves with the student, but also to carry out an initial review of what might comprise the student's frame of reference. A balance had to be sought, at this point, between a useful awareness of what was meaningful to the student and the bringing of an open mind to new experiences that would be described within the second interview.

The stages involved in data collection and analysis are set out in Figure 3 and each stage is discussed in turn.

Stage 1 - Selection of interview participants

The aim of the study was to identify a range of experiences and conceptions so that similarities and differences could be fully explored. At the design stage of the project it was decided to interview ten students who were currently on placement, and five students who had returned from placement and had commenced their final year of study. The placement students were to be interviewed twice during the year: once shortly after they had started their placement and again towards the end of their placement. The final-year students were to be interviewed once approximately two months after they had started their final year of study.

Within research studies of this nature a pragmatic approach is taken and 15 to 20 interviewees usually form the basis of enquiry. One factor to be considered is the number and length of interview transcripts involved, and the amount of data that a researcher can practically handle, especially where an immersion in the student experience is required. A second factor is whether, within the interviews, it is felt that sufficient variation and experience has been accessed. 'Saturation' and 'sufficiency' are the terms used to describe this issue. In other words, is there a sufficient element of repetition or re-occurrence of themes and perceptions such that it is felt that further interviews are unlikely to introduce any new elements? (Lincoln and Guba, 1985)

Additional students were recruited at the start of the project to allow for withdrawals from the study. However, only one student requested to leave the project once it had started. Thus, in the event 11 placement students (eight BABS and three BAAF) were interviewed twice during the year, and six final-year students (three BABS and three BAAF) were interviewed. In fact, four of the final-year students were also interviewed towards the end of the final year (discussed below). Thus a total of 32 interviews were conducted.

In selecting students for the project the following factors were considered: level 2 average mark, gender and type of placement organisation. Prior research on ways of knowing clearly shows that gender may indicate distinctive variation. It was felt prudent to include a range of academic abilities (as evidenced by level 2 average mark) and types of placement organisation (on the assumption that this would provide a range of placement experience). However, given that this was an exploratory study, no further assumptions were made about possible factors that might be related to variation in ways of knowing.

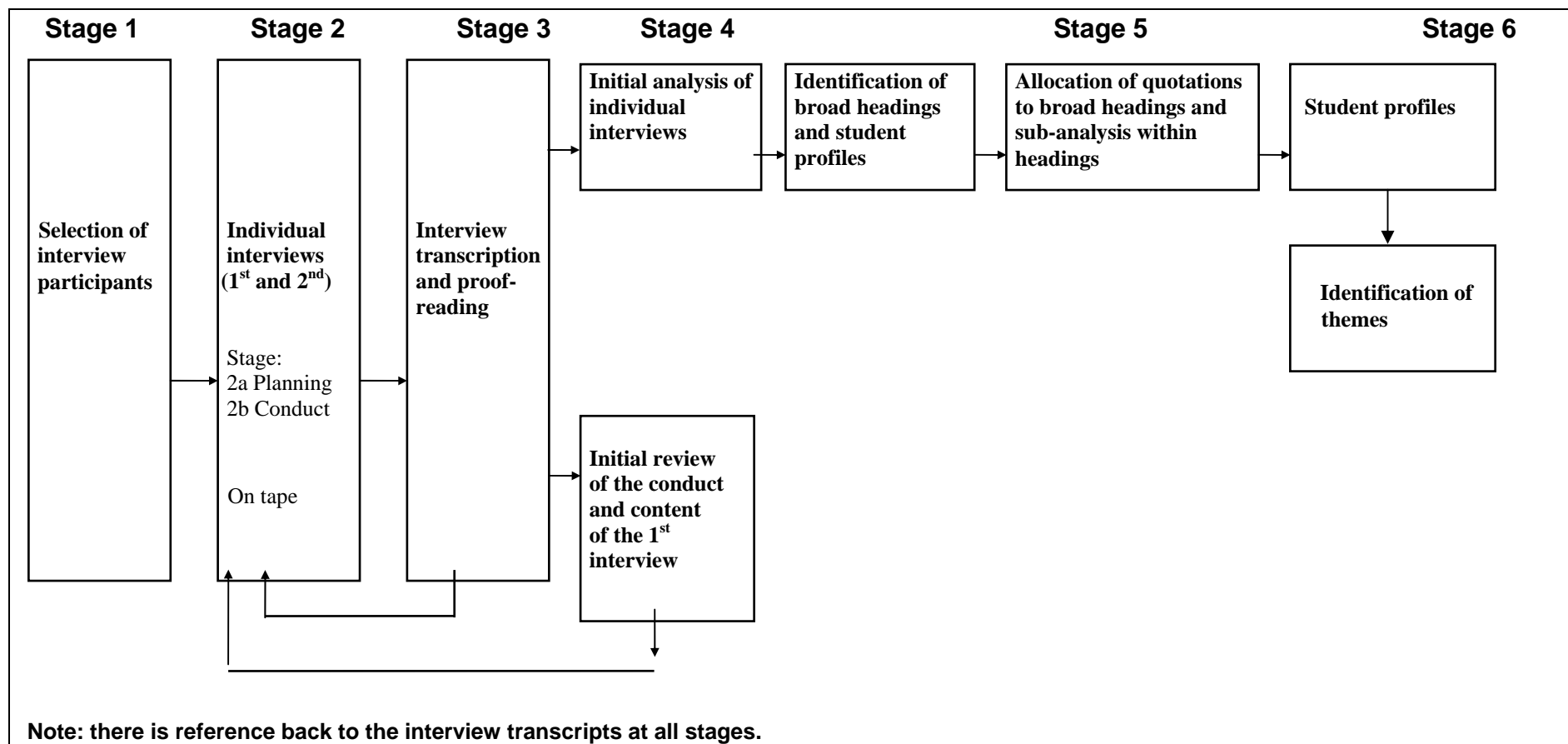


Figure 3: Stages in the design and conduct of the research study

The final choice of students was influenced by several factors. A particular region for the placement location was chosen to minimise travel time. Students working in that region across a range of different types of employment were then selected to provide a range of level 2 average marks and roughly equal numbers of male and female students. Table 6 sets out the names of students¹⁰, their degree course, the degree classification equivalent of their level 2 achievement and the nature of the placement employment.

Placement students	Degree	Level 2 achievement	Nature of placement employer
Chloe	BABS	1 st	National financial services company
Emily	BABS	2.1	National recruitment agency
Holly	BABS	2.2	Outsourced services provider
Joanne	BABS	2.2	National financial services partnership
Joe	BAAF	2.1	National financial services company
Paul	BABS	1 st	National financial services company
Rachel	BAAF	2.1	Global engineering company
Rudy	BABS	2.1	Global information systems provider
Spencer	BABS	2.1	Global financial services partnership
Tony	BABS	2.2	National hire company
Wayne	BAAF	2.1	Global engineering company
Final-year students			
Coleen	BABS	2.2	National services provider
John	BAAF	2.2	National retail company
Kirsty	BAAF	3 rd	Public sector
Leo	BAAF	2.1	Outsourced services provider
Luke	BABS	2.2	National financial services provider
Robin	BABS	3 rd	National information services provider

Table 6: Students participating in the project

¹⁰ The names, but not gender, of students have been changed to ensure anonymity.

Stage 2 – Individual interviews

Interviews were conducted twice during the placement and the final year (although two final-year students declined to attend the second interview). A few interviews took place at the students' place of work; however, most interviews took place at the University. At the beginning of the interview, issues of confidentiality and anonymity were discussed. The design and conduct of the research project (including information and consent forms for participants) had been submitted to the University's Research Ethics Committee and approved.

The interviews were conducted in an informal way. Doubtless the students were 'talking to a researcher', but it was found that, as the interview progressed, most students became fairly relaxed.

Stage 3 – Interview transcription and proofreading

Interviews were audio-recorded and subsequently transcribed by a research assistant. Transcription involved the recording of all conversation, with punctuation used to support emphasis. Pauses beyond what was felt to be the norm were noted, but not timed. Exclamation marks were also used to denote meaning and laughter was indicated. All transcripts were proofread. This served two functions. First, it ensured the accuracy of the transcripts (and it is not uncommon for minor errors or paraphrasing to lead to large misunderstandings). Second, proofreading requires much repeated listening, and one feels quite familiar with the interview by the time the transcript has been checked.

Stages 4 and 5 – Analysis of the interviews

As discussed above, following the conduct of the first interviews, transcripts were read to support and inform the conduct of the second interview. Once the interviews were completed, a further analysis of individual interviews was carried out. This involved a careful and close reading of the transcript, and a continuous cycle of reduction and interpretation. Initially a frame of reference was identified for each student, termed the 'student profile' (Ashworth and Lucas, 2000). It comprised the most salient aspects of their experience: themes that recurred throughout the interview. Later in the analysis there was a move away from the experience of the individual, to a focus on comparative experiences through the pooling and comparison of quotations. Generalisations across individuals are necessary, but it is important that the individual's unique experience is not lost. An awareness of the student profile is a necessary counter-weight to any meaning being taken out of context.

It should also be noted that these profiles also provide evidence of what might be termed 'internal validity'. This term is used to refer to the consistency in the account given by the student. The key criterion for judging an interview is the extent to which it gives one access to experience (meaningful events and interpretations). Several factors might hinder this; for example, the lack of any intention to reflect on the part of the student, inappropriate interview questions that close down certain areas of

experience, and a lack of trust between the interviewer and student. No worrying inconsistencies were found within the interviews, with a coherence found in the students' accounts that was quite striking and indicated a clear and consistent frame of reference.

Following the identification of the student profile, a series of broad headings were identified under which relevant quotations could be grouped (using data analysis software). The intention, at this stage, was to keep these as fairly broad headings so that analysis was not closed down too early. It was then possible to analyse quotations under each heading to carry out analysis across the group of students and for each student individually.

Stage 6 – Production of student profiles and the identification of themes

As a final stage in the analysis, following a reiteration of analysis through broad headings, student profiles and narrower headings, it was possible to produce final student profiles and to identify key themes. The identification of themes involved several different, but iterative, elements. A key standpoint from which the analysis was viewed was looking for differences and similarities. The point of interest was in what constituted distinctive ways of experiencing university, learning and the placement. The themes did not arise solely from what the students said; they also arose from the way that they said things e.g. a lack of conviction, contradictions in what they said, or from what they did *not* say.

At this stage analysis was also informed by wider reading of the literature. The research, while formulated in the context of the literature on ways of knowing, was itself formative. Thus, the research design itself was sufficiently open for a range of student experience to be accessed. In fact, some of the findings were unexpected and challenged prior research. Thus, the reading was widened, and it was found that the analysis was supported by a willingness to take a wider view of the nature of learning and learning environments.

4.3 Research Context

Research into ways of knowing is framed within a social constructivist perspective. That is, it is based on an assumption that meanings and understandings arise from social encounters within particular social contexts. Thus findings from this research project only have value to the extent that they are related to the context which gives rise to them. Baxter Magolda (1992, p.191) accepts that ways of knowing are 'working hypotheses' and that 'transferability is possible only when the researcher describes the context that produced the working hypotheses sufficiently for readers to judge its similarity to the context in which they wish to use the information (Lincoln and Guba, 1985)'.

Given the wide range of overlapping findings within research on beliefs about knowledge (Hofer, 2004a), it is reasonable to assume that the *broad* findings of Baxter Magolda's work would be applicable within a UK university in 2005-07. However, Baxter Magolda's work was carried out in the context of the University of Miami in the US from the late 1980s onwards. Her students were of traditional age, mostly white, from middle-class families and they 'experienced college in a student culture

characterised by high involvement, academic focus, and tradition' (Baxter Magolda, 1992, p.190). The context for our research was rather different. Accordingly, a full description of the key features of that context is provided below. Further detail under each of these headings is available in Appendix 6.

Key features of the undergraduate programmes

This strand of the project was conducted within the BA (Hons) Business Studies (BABS) and the BA (Hons) Accounting and Finance (BAAF) modular programmes at a UK university. The Business School within which these programmes are based comprises a community of more than 3,000 students and 150 staff. In its most recent review the Higher Education Council for England rated the teaching as 'excellent'. This rating was reconfirmed following a detailed inspection by the QAA, which awarded the Business School 23 points out of a maximum of 24.

Context for the programmes:

- students have to study and pass the equivalent of six 20-credit modules each year in order to progress from level 1 through to level 3¹¹
- BABS is a general business and management programme with an average of approximately 400 students at each level
- BAAF is a specialist accounting programme with an average of approximately 150 students at each level
- while there has been an increasing proportion of overseas student studying on these programmes in recent years, such students do not usually opt for a placement year.

Learning, teaching and assessment:

- each module in these two programmes is delivered via the equivalent of at least one 'large group' lecture (up to 250 students) and one 'small group' tutorial or workshop per week (up to 25 students)
- through the use of teaching and learning approaches (such as case studies, visiting speakers, reflective learning journals, research projects), both the BABS and BAAF programmes seek to highlight and link the theories and concepts encountered in the classroom with real-life practices in the business environment
- this is integrated with a variety of formative and summative modes of assessment which include in-course assignments (e.g. analysis of case

¹¹ There are potentially four years to these degrees. Level 1 and level 2 relate to years 1 and 2. A placement year comprises year 3. Level 3 refers to the final year, which may be year 3 for non-placement students and year 4 for placement students.

studies, production of management and consultancy reports, individual and group presentations), as well as time-constrained interim tests and year-end examinations.

The work-based placement and final-year project

Both the BABS and BAAF programmes offer students the opportunity to undertake a work-based placement after completing their second year of study (Level 2), normally commencing between June and October that year¹². The design and assessment of the placement comply with QAA requirements, and the general objectives of the placement year are summarised as follows:

- to provide the student with a period of approved work experience in a host organisation approved by the University
- to develop students' business skills and knowledge in their chosen vocational areas
- to allow students to reflect on and apply theoretical knowledge gained from their award
- to develop students' key skills
- to allow students to explore career options
- to enhance students' graduate employability
- to provide an opportunity to undertake some business research.

BABS placement students are required to formulate a research project, the Independent Study Project (ISP), based on the placement. Data for the ISP is gathered and compiled while students are undertaking their placement. On returning to their final year of study, the students are required to analyse the data for incorporation into their final-year double-weighted ISP dissertation. BAAF placement students are not required to complete an ISP. Instead, all final-year BAAF students undertake an accounting or finance-related research project of their choice for the double-weighted 'Accounting in Context' (AiC) module. The AiC module places an emphasis on the critical evaluation of information and its sources and on reflective practice. Students are also expected to maintain a learning journal to support the production of an assessed reflective report.

Placement students are required to complete a placement portfolio. This comprises a range of activities, some of which involve the students' manager at the placement organisation, while others are based on students' self-assessment and reflection on their learning throughout the placement. Staff in the University's Placements Office are in regular email and telephone contact with students while they are on placement. With the students' agreement, staff will also visit the students and their managers during the placement.

4.4 Conclusion

This chapter described in detail the research methodology and method that underpin Strand 2. We have argued that this detail is necessary to provide a *justification* for the

¹² Placement is a compulsory component of the BABS degree. However, those students who choose not to go on a placement can transfer to a BA (Hons) Business Administration degree at the end of their second year.

adoption of this approach, allowing one to assess the extent to which: the research investigates what it sets out as the *focus* of enquiry; and the research method is *enacted* in a way that retains credibility in what it seeks to achieve. Key features of the *context* for the research are also described, arguing that the findings of this strand will only have value to the extent to which they are related to the context that gave rise to them.

Having described and justified the research method for Strand 2, the following three chapters will discuss the findings:

Chapter 5 Ways of knowing and contextual features

Chapter 6 The development of a reflective capacity

Chapter 7 Improvement in academic performance.

5. Strand 2 findings: ways of knowing and contextual features

The findings in relation to ways of knowing and contextual features are as follows:

- **ways of knowing** were identified with absolute and transitional ways of knowing being predominant
- the **context** in which the research was conducted gives rise to features that appear to have a significant impact on the way in which these ways of knowing are manifested
- these **contextual features** comprise the motivation for studying for a degree and a strong attention on the organisation of learning and requirements of assessment.

This chapter will discuss the above findings¹³. The following section describes how ways of knowing were evidenced within the interviews. The importance of *context* and the nature of the *contextual features* that impacted upon how ways of knowing were manifest are then described.

5.1 Findings: the identification of ways of knowing

Ways of knowing were identified with absolute and transitional ways of knowing being predominant.

A way of knowing acts as a lens through which aspects of the learning environment are viewed. Thus within interviews a way of knowing might be evidenced through the way in which students' talked about themselves, the subjects being studied, their peers, their lecturers and assessment. Baxter Magolda (1992) identifies four qualitatively different ways of knowing:

- absolute knowing: knowledge exists in an absolute form – it is either right or wrong
- transitional knowing: knowledge is certain in some areas and uncertain in other areas
- independent knowing: knowledge is uncertain – everyone has their own beliefs
- contextual knowing: knowledge is contextual – one exercises judgment on the basis of evidence in context.

¹³ Quotations from students will be used throughout Chapters 5 to 7. The following conventions have been used: [] indicates that a passage has been removed from the extract; the use of italics indicates that the interviewer is quoted; the students' names have been replaced with pseudonyms, the number indicates whether it is a quotation from the first or second interview and whether the student is currently on placement (P) or in the final year (F); and the final number refers to the line number within the interview. Bold is sometimes used within interview extracts to emphasise particular aspects relevant to the analysis.

It was found that absolute and transitional ways of knowing were predominant. An independent way of knowing was identified for only one student.

5.1.1 Absolute way of knowing

The core assumption underpinning this way of knowing is that knowledge exists in an absolute form. Applying this core assumption to the domains of learner, peers, lecturer, assessment and the nature of knowledge, the following assumptions underpin students' perceptions of the learning environment (Baxter Magolda, 1992, p.74):

- knowledge exists in an absolute form
- learners focus on obtaining information
- lecturers should communicate information clearly and ensure that students understand the knowledge
- peers don't have legitimate knowledge, although they can share what they have learned from authority figures
- lecturers should determine whether students have acquired the necessary information and assessment is seen as a vehicle to show the lecturer what was learned
- lecturers can do this because they have mastery of the knowledge and authority
- students interpret any discrepancies that they encounter in the learning process as variations in explanations rather than true differences.

Knowledge exists in an absolute form

When describing their learning, students distinguished between the perceived nature of the subjects they studied. Their comments indicated that they do not regard all subjects in the same light. A frequent comparison that occurred was between accounting and other subjects. For example, Paul sees finance in an absolute sense:

'Where it's something like Finance and there's a technical method which is textbook, **you don't get different views**, you just get people who don't understand it and people that do.' (Paul 1P: 327)

Leo found it difficult to respond to a question about varying points of view:

'Um, I don't really know to be honest with you. I don't think so. I mean ... um ... (pause) ... varying points of view? I mean to be honest ... I mean I see accountancy as being quite a kind of learnt subject so **there's not a lot of ... wrong ways of thinking**, but I mean learning the concepts and stuff ... there's not a lot of ...' (Leo 1F: 151)

None of the students took a view of knowledge that was completely absolute. Both BABS and BAAF students are exposed to a range of subjects within the degree programmes. Inevitably this allowed them to compare subjects and to become aware that they varied in the extent to which they were underpinned by absolute knowledge.

This focus on finance and accounting as comprising absolute knowledge is likely to be of concern (but not a surprise) to accounting lecturers. The identification of assumptions, conventions and the regulatory framework which underpin accounting feature strongly throughout the accounting curriculum.

Learners focus on obtaining information

If knowledge is absolute then *learning* is explained through acquiring new information and being able to recall it:

‘Learning? Um, I guess ... um, I guess (pause) ... learning ... getting to know something when you don’t know ... how can I word it? Um, it’s about new stuff almost I think. With me it’s new stuff. **Learning new stuff ... getting it in your head and keeping it in your head** – a lot of it. Once you can recall it easily then you’ve learnt it.’ (Joe 1P: 187)

Given this assumption, the role of the learner becomes a standard process, generally regardless of subject, of obtaining, assimilating and then understanding this information:

‘**Getting all the material available**, the textbooks, all the support material, the notes, additional notes. Going to the 5th floor of the Library, putting my music on very quietly and **reading everything**. *And this works? [] In all the subjects?* Yes. **It’s the best way that I can find to assimilate the information**. I like to know the course outline, so the topic areas, what’s included in each topic, but then **I like to go away and read it for myself so that I understand it**. If I have any problems, I go back to my 1st Year notes because the 2nd Year is just a more in-depth version of the 1st Year, so I find it in its raw form. If I still don’t understand it, then go back to my A-Level notes, look at them, can’t understand that, it’s not worth knowing.’ (Tony 1P: 297)

‘Understanding’ in this sense does not refer to a grasp of underlying principles, or of being able to relate the topics to real-life. Learning, as experienced by Tony, is primarily about organisation: the organisation of information, its access and retrieval. In many of the interviews students vividly described, and with great fluency, just how they went about ‘learning’ in this sense. This fluency contrasted with their faltering responses when asked about varying points of view or conflicts about what to believe.

Lecturers should communicate information clearly and ensure that students understand the knowledge

If learning is about the assimilation of knowledge, then the role of the lecturer is to communicate information clearly. Since the transmission of information can be quite passive, students valued lecturers who taught with enthusiasm and passion, maintained their attention, focused on key aspects of the topic and provided good explanations. As Colleen describes, a helpful lecturer is:

‘...enthusiastic about their subject and if they give you a lot of useful information that you can actually use and you write it down, then I think it can explain something instead of having to read it in the text book which you may not always understand, so it’s... there are some very good lecturers which you learn a lot from. So *when you say that they can give you useful information, what is that useful for?* Um, exams ... you know, the whole ... assignments, exams, all your assessments, that’s what you’re going in for (laugh)... to be able to complete them.’(Colleen 1F: 316)

Peers don’t have legitimate knowledge, although they can share what they have learned from authority figures

The role of peers can be various within this way of knowing. For some students, peers ask the questions that they feel they are unable to ask themselves – they become the ‘voice’ that the student does not have:

‘...you always get one pupil in a class who’s quite outspoken and the thing is I think you need them as well because sometimes there’s a niggling doubt in your head or something like that and they’ll just say it and even though you’re quite sure that the answer’s quite obvious, sometimes it’s just nice to have a little bit of clarity in the subject. *So they ask the questions for you? They ask the questions for me.* Yes.’ (Joe 1P: 102)

It is interesting to note the use of the term ‘pupil’ in the above interview. It was not unusual for students to use ‘classroom’ rather than ‘university’ terminology, thus reinforcing the feeling that they see themselves in a teacher-pupil, rather than a lecturer-student or more adult, relationship.

Several students referred to the issue of ‘confidence’ in asking questions. Within an absolute way of knowing, confidence would be especially important. First, if one views knowledge as factual and certain, then asking a question opens up the possibility of being ‘wrong’. It also opens up the possibility of being seen to challenge the lecturer, who is a person of authority. So, all in all, this would be a risky venture for some students¹⁴.

Working with peers also provides a quick access to explanations and advice rather than ‘having to wait for the tutor all the time’ (Wayne 1P: 89). It provides explanations:

‘Often they explained it a lot better ... not better, but you know, in a way you understood than the lecturer, so you know, if you didn’t quite understand what the lecturer was saying ... their way of putting it, a friend could maybe help another way or,

¹⁴ Baxter Magolda (1992) identified gender-related patterns in ways of knowing. Within the absolute way of knowing, she identified students exhibiting *receiving* patterns and *mastery* patterns of knowing that were gender-related. Speaking up in class would be a challenge for a receiving-pattern student whereas a mastery-pattern student would ‘embrace a public role in class to demonstrate their interest to a lecturer, expect interchanges with lecturers, view peers as partners in arguing and quizzing each other to master material, value evaluation that helps them improve their mastery and appeal to authority to resolve differences in knowledge claims’ (p.38). For reasons of space within this report we shall not report on gender-related patterns, although we found evidence of these. These findings will be reported in subsequent research papers.

you know, just working together helps you ... you know, two heads are better than one.' (Rachel 1P: 135)

Students referred to discussion and debate with their peers and the value they attached to this. However, this appears to be aimed, not at developing a deeper or critical understanding of topics, but at maintaining attention for the purpose of assimilating and recalling information. For example, as Rudy explains:

'Well we had... we could add to each other's argument and then as you can see... and then once you've built an argument up with each other, you can recollect it and then write it down in an exam paper, so it helps a lot.' (Rudy 1P: 113)

Lecturers should determine whether students have acquired the necessary information and assessment is seen as a vehicle to show the lecturer what had been learned

Baxter Magolda sets out a separate heading for the role of assessment and students' views on this. However, there was generally little discussion of the role of assessment by students. It appears to be taken-for-granted. When referred to, students talked only about their expectations of fairness in marking and clarity about assessment requirements. They also talked about what they were learning, through *how* they would deal with the material or topic in relation to assessment. Thus theories might be described in absolute terms, not as something to be understood or evaluated in context, but in terms of how they form a way of being assessed. Thus Emily's response to a question about how she forms her own beliefs is interesting:

'...looking at those theories that you've got in HR, did you find that they were competing or conflicting or that you had difficulty deciding which ones to believe? Some of them are quite conflicting anyway aren't they because if you're writing an essay you've got to argue two points haven't you?' (Emily 1P: 75)

Lecturers can do this because they have mastery of the knowledge and authority

If students are to think for themselves and develop a 'voice' then they will, at some point, have to challenge their own perceptions that lecturers are an unchallengeable authority. However, Holly does not see herself in this role yet. When asked how she came to form views about conflicting theories, she responded:

'I mean I kind of ... what I was taught in lectures I kind of took as gospel (laugh). Who am I to raise any conflicting views about that?' (Holly 1P: 282)

Similarly, Joanne comments:

'Um, well unless it's fact ... which a lot of the time it is, that's why they're teaching it, um, you can't really dispute it, um, so you're not made to believe it, but you have to believe it because it's fact.' (Joanne 1P: 323)

Views about the importance of assessment can be linked to this. For example, Paul, comments:

‘No, you just take it, don’t you? You’re being taught it as a subject and actually, X, my friend, gets particularly agitated about, is, you know, well, that’s what they say, if you don’t believe that, you won’t get marks in the exam which, at the end of the day, is how you’re going to get your degree, so you just go along with it. I think... yeah... that is probably my view as well, is that, even if you did think, ‘Gosh, I really don’t, you know, I really don’t think that actually, but you... **I don’t think you have the liberty to sometimes express that necessarily because you won’t get the marks for it.** So you end up just having to say, ‘OK, you know, that’s what it’s like. This is the model. This is what such and such said, and this is how it is.’ (Paul 1P: 453)

Students interpret any discrepancies that they encounter in the learning process as variations in explanations rather than true differences

Within the interviews students were asked if they came across conflicting theories or views. Most frequently they would respond by talking either about whether a *consistent message* was delivered by lecturers or about a *lack of consistency* in explanations either between lecturers, or between the lecturer and the textbook. For example, Spencer, responds:

‘In terms of the opinions that I was given by lecturers, I think they followed a pretty consistent theme. [] I think I was given a fairly consistent message by my tutors and lecturers.’ (Spencer 1P: 307)

Many follow-up probes were used within the interviews to encourage students to talk about the nature of conflicting views, discrepancies, differences of opinion and so on. However, it was found that either such questions did not have much meaning for students, or they talked about a lack of consistency or different ways of explaining the same thing. This is in accord with the absolute way of knowing. Where there is an assumption that knowledge is certain then students will interpret differences of opinion between authorities as differences, not about the facts, but about detail arising from inappropriate application, misinformation or misunderstanding.

5.1.2 Transitional way of knowing

With a transitional way of knowing there is a shift from the assumption that knowledge is absolute. Here there are two categories of knowledge: certain in some areas and uncertain in others. Where knowledge is uncertain it is assumed that, in due course, better evidence, techniques or theories will produce accepted facts. Applying this assumption about knowledge to the domains of knowledge, learner, peers, lecturer and assessment, Baxter Magolda (1992, p.105) provides the following overview of a transitional way of knowing:

- two categories of knowledge: certain and uncertain
- students alter their focus from acquiring to understanding (which includes applying knowledge within class and to life in general)
- peers take on a more active role to support exploration

- support the discovery of voice (p.122) – access to one’s own and others’ personal experiences (using personal judgment, deciding for themselves or thinking original thoughts)
- but there is still a reliance on authority
- assessment is appropriate to the extent that it measured students’ comprehension of the material.

Two categories of knowledge: certain and uncertain

Most students appeared to provide evidence of a transitional way of knowing. Joe provides a good example of the reasoning involved in this view of knowledge when he talks about different views about the legal liability of auditors:

*‘Why do you think people have different views? Um, I don’t know. Because there’s no clear-cut answer almost. [] There is, there’s just no obvious ... **there’s going to be a right answer in the end. Is there?** I probably think so, but it’s hard ... at this stage it’s hard to see what the right answer is, and that’s why there’s so much conflict I think [] **only when you’ve got all the information you can make the best ...decision ...decision, yes** and I don’t know ... I don’t know what the answer is.’ (Joe 1P: 247)*

Transitional knowing was also evidenced when students distinguished between the subjects they studied. As described in Section 5.1.1, accounting tended to be given as an example of a straightforward, factual subject. In contrast, other subjects gave rise to different types of uncertainties. Rachel’s description of her experience of business law contains several interesting aspects:

*‘I know in business law it was **very on your own**, the work, and that was often quite hard because, you know, what you’re learning and putting all the cases together and the sequence of events, it was often kind of quite hard ... you know, you were very focused on one way of doing it, **someone else had another way of doing it** and another person had another way, but you couldn’t feed off that and, you know, it was **your way of thinking didn’t quite meet theirs**, so you couldn’t really ...’ (Rachel 1P: 83)*

Rachel, used to working with peers on accounting problems, is struck by differences in ways of thinking within business law. Within a transitional way of knowing, since there will be different interpretations and uncertainty in the face of a lack of information and facts, then it follows that, in the absence of a *right* answer, there will be an emphasis on a *process* that allows a student to use the information available:

*‘It was ... some people interpreted the question a different way and, you know, the scenario. So they said ‘Oh well, that means that’, but then somebody else would say ‘Well actually no, if you read it all together and put that bit with it, it’s something different’. If you do one thing slightly different it leads onto a different scenario to different scenario so ... *Is one way wrong then because there’s only one way of interpreting the scenario?* I think there was, you know, I think they kind of got process marks maybe I’m not sure, but it was very ... quite low marks and quite high marks and there was quite a gap between them.’ (Rachel 1P: 87)*

It is interesting to note that Rachel refers to assessment and marks within this discussion. It seems that coming to a view is, again, influenced by assessment rather than an attribute of the development of a way of knowing .

Joanne also refers to this notion of a *process* that is undergone in coming to an end result. She refers to the existence of 'facts', and in response to the question 'are there any non-facts?' comments:

'Well [human resource management] is obviously one because it's open for discussion, um, um, in ... to a certain extent, um, and [*operations*] was another one whereby there was a ... for instance if you were doing course work, you know, you had to get to an end result, um, but there were so many things you could put before that and to get to that and you could do that in your own way, so um, I think that's it ... **I mean finance, that's fact** (laugh), um ...' (Joanne 1P: 327)

It is evident that Joanne has not thought much about the differences between subjects. Within transitional knowing there is no sense that the student has to make a personal decision or to come to a personal view – the *process* is the object. Kirsty sums this up as follows:

'Um, **I don't think I had to make decisions,** accounting on the whole seems to be 'this is how it's done' and most of it is just methods, so I don't really have to make that many decisions and I never really stuck to a decision ... I thought 'oh actually I think it's this' and then went and looked and think 'oh actually it could be that', so I never actually come to a decision, **I just kind of used both sides of the argument** around like a point, so like I don't know, throughput accounting, there were so many different aspects that I could have put into it, so I never actually said 'Oh throughput accounting is the best thing in the whole wide world', because then you'd look at other accounting costing methods and just think 'oh this is as good' or 'this is not as good', **so I never made like point-blank decisions.**' (Kirsty 2F: 374)

If a decision is taken, 'what would work out best' can be substituted for the absolute knowledge that learners found did not exist. Thus Kirsty later talks about the complexity of a public sector organisation and how activity-based costing would be the 'best method' and 'the simplest way' (Kirsty 2F: 390).

This growing recognition of uncertainty and of the existence of conflicting opinions in areas of uncertainty is summed up by Robin:

'...at the end of the year (*second year*) with your exam and you're thinking 'right, this is correct', but then go onto the third year and then say 'Well it is correct, but there's a lot more views'. (Robin 1F: 307)

Robin is still using the term 'correct', but doesn't expand on what the views might be about. When he is asked how he decides on his view, he responds: 'Um, the one that I find easiest, that's what it comes down to' (Robin 1F: 319). Colleen's response when asked 'in your heart of hearts how would you come to a view yourself' indicates the difficulties she has in explaining how she arrived at her own view:

'Um, (pause) I don't know. I mean I don't really ... I won't think 'oh I'm right, nobody else is ...they're all wrong or anything', um, that's a hard one. I've never thought about it like that, but I don't know how you ... if there is ... usually if everybody's got loads of opinions then you just usually take them ... everybody takes them all into account and they're put all forward and they're all ... they're not all right or wrong, but they're all ...

they all have their own strengths really. I don't know. **That's a really hard one, I have no idea.**' (Colleen 1F: 370)

Students alter their focus from acquiring to understanding (which includes applying knowledge within class and to life in general)

In the face of differing interpretations leading to differing views, students have to draw on something other than facts in order to 'make sense' of this situation. This can be achieved through relating what is learnt to 'real-life'. Four students (Wayne, Holly, Luke and Robin) talked about learning in this way. For example, Wayne, when asked 'what is learning?', responds:

'What learning is? Um, I would probably say, um, I almost wouldn't want to use the word learning. I don't know really, I suppose it's maybe developing new skills and almost taking on board and understanding new information because it's one thing to read something, it's another thing to actually understand it and then **be able to talk about it afterwards or relate it to something you're doing or use it almost.**' (Wayne 2P: 540)

The need to relate what is learnt to a practical situation leads to Wayne's reasons why he prefers management accounting to financial accounting:

'I really enjoy management accounting because it's a bit more, um, ... I kind of understand it more, it's more, um, a sense of ... like if you're doing costing or doing those sort of things, you can kind of think about them in your head and understand where it's coming from, why you would be doing that and **sort of put a real life example to it**' (Wayne 1P: 57)

Wayne's emphasis on real-life applicability then leads to a particular 'role' for theory within a transitional way of knowing:

'... there was a five stage Porter model, um, I really can't remember, I think it's speed, cost, dependability and a couple of other things that I can't remember off the top of my head, um, and maybe the way they looked at them I didn't particularly agree with, like, um, they kind of put the five theories into, um, different work environments so you could have a supermarket or something and they would say that, kind of, speed was very important ... speed was very important and it was important for, say, a supermarket to get the customers as fast as they can through the tills, but then from my personal experience because I've worked in a supermarket, customers don't like to be rushed [] so I didn't always agree with the theories or ... **it seemed more of a theory than something that had actually been carried out in every day life.** So that was the only thing that I might have argued with. *So you didn't feel you had to believe it, it was just an idea and ... why do you think we have these theories then really, because that doesn't seem to relate to real life?* Um, maybe as a guideline I suppose. Not everyone gets hands-on life experiences, so the theories kind of give you **a guideline as to what is right and wrong.**' (Wayne 1P: 261)

Thus theory acts as a guideline (or authority) until personal experience can allow one to develop one's own views on theories. However, in this case, there is still a reference to something being 'right' or 'wrong'.

Peers take on a more active role to support exploration

Since the personal experience of students may vary, peers now become important in the sense that they can support the discovery of voice: giving access to one's own and others' personal experiences (using personal judgment, deciding for themselves or thinking original thoughts). However, Joanne describes this in a rather low-key way, when asked if she found it useful to work with fellow students:

'Yes, very much so. Yeah, different ideas on, you know ... different opinions in a lot of circumstances actually, um, it's just quite handy to know what other people think and how ... you know, what they think on a certain subject or theory, so yes **it was handy**.' (Joanne 1P: 127)

Similarly, Tony finds that:

'...helps me to think, sort of a little bit outside of the box, think objectively, give me sort of a wider opinion of things so that I'm not just, not just narrow but, I mean, it does help in my course.... I don't know, it's different for me ... **it does help a bit. It's difficult to say how though.**' (Tony 1P: 179)

Chloe expresses similar experience, again in a fairly low-key way:

'Um, like quite often somebody would say something and, you know, it's completely different to what you're thinking, but I just ... again it's just how it's interpreted really, but **it's quite good because it gets the discussion going in the class really.**' (Chloe 1P: 14)

These extracts suggest a lack of close engagement with the experience of others. This was evident for most students.

Assessment is appropriate to the extent that it measured students' comprehension of the material

As with the absolute way of knowing, there was generally little discussion of the role of assessment by students. It appears to be taken-for-granted. When referred to, students talked about their expectations of fairness in marking and clarity about assessment requirements.

5.1.3 Independent way of knowing

As indicated in the previous section, transitional knowing is characterised by two categories of knowledge: certain and uncertain. However, within independent knowing there is a basic assumption of uncertainty. Applying this core assumption to the domains of learner, peers, lecturer, assessment and the nature of knowledge, Baxter Magolda (1992, p.136) provides the following overview of an independent way of knowing:

- openness captures the essence of the core assumption, i.e. that
 - knowledge was open to many interpretations
 - people should be receptive to others' ideas

- many possibilities existed in the choices confronting them
- the risk of being wrong is eliminated
- differences among authorities now represent the variety of views possible in an uncertain world
- authorities are not the only source of knowledge – students view themselves as equals and hold their own opinions as valid
- peers become a legitimate source of knowledge rather than being a part of the learning process
- independent knowers emphasise being open-minded and allowing everyone to believe what they will
- although independent knowers did make decisions about what to believe, they rarely identified criteria upon which these should be based (thus using their voices to minimum risk).

Initially, many students appeared to fall into this way of knowing, mainly through having characteristics of the last feature in the above list. This arose particularly because they would talk about varying interpretations and about listening to the ideas of others. Moreover, a notable characteristic within the interviews was the rationale given by students as to how they arrived at their views. Students referred to the following:

- gut instincts
- personal feelings
- ‘how you have been raised’.

For example, Rudy refers to all of these:

‘Obviously you use the evidence... If I was doing an essay or something, or if I was writing an answer in an exam, yeah I’d **use evidence to back my argument up** or to back the argument up against me, but then, I suppose **gut instincts or your personal feelings is going to have an impact on that** and that’s...I don’t know how, why my opinion is a certain way, but everybody’s opinion is different and I suppose maybe it’s **something to do with who you are or how you’ve been raised, or whatever**, so you can’t rightly know what that is.’ (Rudy 1P: 137)

Spencer refers to ‘deep felt moral belief’ (Spencer 1P: 311), but is still open to ‘facts that I wasn’t aware of previously’(1P: 327). Chloe talks about ‘what you feel comfortable with’ (Chloe 1P: 282), while John refers to having ‘more preconceptions than views’, although he adds that his ‘views have been a bit more balanced since University’, but he has ‘always had his own views’ (John 1F: 153). However, these criteria are of such a nature that it would appear that there has been no *decision* about what to believe. These appear literally to be ‘gut reactions’ rather than a conscious decision.

Moreover, it was difficult to find evidence of the core assumptions of *uncertainty* and *openness*. This in part arose from a lack of fluency, or inability to talk about these issues. It also appeared that ‘coming to a view’ was an irrelevance in the context of students’ limited time, the importance of assessment processes and the focus on gaining a good degree classification.

Only one student, Robin, appeared to be moving towards an independent way of knowing. It is not possible to provide examples of aspects of an independent way of knowing under all of the above headings. However, Robin provides an example of some element of *openness*. Robin feels that he has changed over the last two years, and openness is the first thing he mentions:

‘I’m probably more open to, um, the way things happen, whereas before I may have been thinking ... um, things happen in one way and maybe now I’ve understood that things can happen differently, um, I just have a bit more open view of life, you know, anything’s possible really. [] I’m just more open and willing to do different things, and not be afraid to try things I suppose. Not being afraid of a challenge.’ (Robin 2F: 595)

His object of interest lies in *deeper questions*. The clue to this lies in his reflection about working with people he does not know: ‘with people you don’t know you are always going to have trouble asking them deeper questions’ (1: 155). He expresses more positive feelings about working with other students (compared with the rather laid-back attitude observed previously within a transitional way of knowing). For him, peers are a legitimate source of knowledge. For example:

‘I mean you just had to say how people reacted, how the organisation reacted, um, if the change implementation went well, if not why not, questions like that really, so not such, you know, theory X says this, and because of that this means its more, um, opinionated really, which is quite good because throughout the tutorials in a year people would ... especially tutorials, it’s a lot of group talk and it’s not just one person speaking, everyone gets in together and has their own opinion on different topics and, um, it’s...it’s good.’ (Robin 2F: 47)

Robin sees his own opinions as valid – to an extent. He values his own personal experience and distinguishes this from what he terms ‘secondary experience’ i.e. ‘what you’ve read or something you’ve heard about’ (2F: 35). However, he appears to have an ambivalent attitude towards his own personal authority. This may arise because of his perception of what is ‘permitted’ by his tutors within the educational context. Thus:

‘...even though I have applied what I ...my experiences, you’ve got to be in a frame of mind even that your opinions are appreciated, that what the lecturers and tutorial tutors tell you is correct because, um, and then you just have your own perceptions of that teaching, whereas if you start thinking outside of the box too ... too far outside of the box then your opinions aren’t really appreciated and you’re told otherwise.’ (2F: 243)

When asked if he does disagree with his tutors, his response indicates their authority is only partial:

‘I may do slightly sometimes, but at the end of the day they’ve had the experience and their modules have been set up the way that is best practice, it’s how it should be, um, so if anything **I would maybe argue the situation rather than what they’re telling me**. Um...[] Yes. I’ll say ‘Oh I don’t think that’s the way they meant it’, or, um, but I wouldn’t totally disagree with what they say because it’s ... what’s the point, because

you're arguing with a professional who's had the experience and I'm just giving an opinion which might be totally incorrect (laugh) or...' (2F: 339)

Robin will *argue the situation*, i.e. because he has experience and knowledge of context that he values. This would seem to be moving towards a contextual way of knowing. Yet Robin also refers to giving an opinion that might be 'totally incorrect'. Although he is deliberately disparaging himself in this instance, a sense of some insecurity is evident, as he perceives the tutor as 'a professional who's had the experience'. This contrasts with his openness and interest in 'deeper questions'.

However, Robin is also quite pragmatic in his approach to his assessments, doing what is required to get that all important 2:1 degree classification. Talking about his final-year examinations:

'Um, yes. My (*organisational analysis*) went really well, um, well I hope. I learnt by doing acronyms of the theories and when I got in the exam I literally wrote down two pages of them all and just referred back to them.' (2F: 15)

Robin's account highlights interesting aspects. It would seem that he is developing his own voice and views. However, while his account provided evidence of *openness*, we could not identify any underlying acknowledgement about *uncertainty*. Baxter Magolda (1992, p.137) points out that students make 'a discovery that will make independent knowing possible. Whereas knowledge previously was composed of things established as certain or what other people thought was right, it will now consist of what [the students] decide to believe'. She also observes that where students shifted from transitional to independent knowing, there was a recognition that their accounts were revelatory in nature. Students' accounts might refer to: a crumbling of foundations and the need to rebuild for themselves, scepticism about what 'truth' is, that being 'wrong' did not necessarily mean that you were a bad person and so on. However, no such *revelatory* aspects of experience were identified within these interviews.

Some students did refer to key changes in their attitudes and perspectives. However, the main key change lay in students' perceptions of themselves and others, rather than in their perceptions of theories and knowledge. Tony provides a good example of this, where he indicates that his placement has:

'...shown me that my theories ... not my personal theories, but **theories from university**, sometimes don't necessarily work in, actually in the field, **they don't quite transfer quite correctly**. Um, it's also given me a bit of an insight as to the sort of my learning and organisations and, um, (Pause) it was good. I've learnt a lot. I've taken a lot of out of it but it's very difficult to describe what I've ... **it's changed my perspective on my working life, how I conduct myself at work and the way ... it's changed my expectations of work**, um, I don't know, it's difficult. It's difficult to describe.' (Tony 2P: 500)

Changes in perspectives on working life are discussed in Chapter 6. This was a major theme across the interviews. However, changes in beliefs about knowledge and

theories were less evident. Here, Tony held an assumption that theories should transfer correctly into practice, and this has been challenged by the observation that they 'don't quite transfer quite correctly'. This seems to be a move from an absolute to a transitional way of knowing, rather than the revelatory change involved in the recognition of continual uncertainty. Thus although Tony is quite forthright in his views on certain matters, he still relies on sources of information that he regards as authoritative, such as the BBC.

5.1.4 Contextual way of knowing

Within an independent way of knowing, students come to a decision about what to believe, and think for themselves. This is also a defining characteristic of a contextual way of knowing. However in the latter, the 'anything goes' attitude changes and the individual now considers that some views may be more valid than others based on evidence in context. Baxter Magolda (1992, p.170f) identifies underpinning assumptions in the following areas:

- some ideas are more valid than others
- evidence is derived from experts (those who have gained expertise in a particular context)
- the exchange and comparison of views is incorporated into the learning process
- learning is about the evaluation of knowledge claims and the integration of information in order to apply it within a context
- lecturers support evaluative discussion and questioning.

No evidence of a contextual way of knowing was found within the student interviews. However, students referred to particular teaching approaches that would be regarded as supportive of a contextual way of knowing – and these were found to be challenging. For example, Paul talks about his experience of organisational analysis:

'But, um, yes, I have to say I mean, all respect to it (*organisational analysis booklet*), that is making me think. I initially remember when getting this book and I was just looking through it and I was just...just thought 'Oh God, more of this rubbish' and, um, it is making me think. It is making me think.' (Paul 2P: 516)

Similarly, Kirsty refers to two subjects where she should be coming to a view about things:

'Everything in Auditing is just a question. Though it is quite good because Accounting in Context this year is, I think it's just Auditing again, like a progression of Auditing, but you're just asked to question everything, like, if they say it was done this way, well you say, 'Well, actually was it done that way or was it done another way or are they just saying it was done that way to just cover up something else?' And it... Auditing actually gave me a whole different way of looking at things. Like, fair enough, this company said that their profits was [sic] X, but did they not include something that they maybe should have included? And I think Auditing might give me a whole new way of

looking at things and I tend to question everything a lot more now. Like this year I questioned a lot more.' (Kirsty 1F: 388)

Although she refers to the fact that auditing might give her a whole new way of looking at things, she has not yet moved away from a transitional way of knowing.

5.1.5 The allocation of students to ways of knowing

A way of knowing is a lens through which a student views the learning environment. However, it is not necessarily appropriate to categorise students as being *absolute* or *transitional knowers*, as such. It is assumed that the beliefs on which a way of knowing is based are deeply-held and not easily changed. However, they do develop and change. Moreover, they are also assumed to be complex, inter-related and contextual. A way of knowing comprises three elements:

- cognitive (how one makes meaning of knowledge)
- interpersonal (how one views oneself in relation to others)
- intrapersonal (how one perceives one's sense of identity).

Thus while Baxter Magolda (1992, p.409) allocated students to ways of knowing, it is not assumed that this is a straightforward matter. Her allocation was achieved by identifying a predominant reasoning structure for each domain (learner, peers, lecturer, assessment and nature of knowledge). An overall way of knowing was then identified from the average of domain ratings. This type of process is necessary to establish a sense of patterns of ways of knowing across larger student groups (exceeding 100).

Students have not been allocated to one way of knowing based on this procedure. As will be discussed further below, there are contextual features for this study that would make this a potentially misleading allocation. In addition, given the particular context of this research project, this research is regarded as exploratory with data from far fewer students. Thus, it was not considered feasible to identify patterns.

Table 7 summarises the allocation of students to ways of knowing (A = absolute; T = transitional; I = independent) within each domain.

Student	Domain				
	Role of learner	Role of peers	Role of lecturer	Assessment	Nature of knowledge
BAAF placement year					
Joe	A	A	A	-	T
Rachel	A	A	A	-	T
Wayne	T	A	A	-	T
BABS placement year					
Chloe	Unclear	T	A	-	T
Emily	A	A	A	-	T
Holly	T	A	A	-	-
Joanne	Unclear	A	A	-	T
Paul	A	A	A	-	T
Rudy	A	A	A	-	T
Spencer	A	-	A	-	T
Tony	A	T	A	-	T
BAAF Final year					
John	A	T	-	-	T
Leo	A	A	A	-	T
Kirsty	A	A	A	-	T
BABS Final year					
Colleen	Unclear	A	A	-	T
Luke	T	T/I	A	-	-
Robin	I	T	A	-	T/I

Table 7: Allocation of students to ways of knowing within each domain

Where there is no allocation this means that there was insufficient data to support an allocation. This arose because, despite some prompting, this domain did not appear to have a particularly significant meaning for the student. For example, Spencer was particularly noted for preferring to work on his own. Although several students said that they preferred to work on their own, they did refer to their interaction with peers, whereas Spencer's preference to work on his own was more pronounced. However, this is consistent with his background of undertaking a range of jobs, during his gap year and while at university, and therefore he is likely to rely more on the interactions outside university. Similarly, John adopted such a highly organised approach to his learning that he possibly did not attach much significance to the role of the lecturer.

The most noticeable aspect of Table 7 is the prevalence of absolute ways of knowing in the domain of the lecturer, and the lack of expressed views about the nature of assessment. These are interesting features, which may arise from the contextual features of the educational environment in which the students study. This will be discussed further in the following section.

5.2 Findings: contextual features of the study

Our findings are as follows:

- the context in which the research was conducted gives rise to contextual features that appear to have a significant impact on the way in which these ways of knowing are manifested
- these contextual features comprise the motivation for studying for a business and accounting UK degree and a strong focus on the organisation of learning and attention to the requirements of assessment.

Analysis of the interview data focused on the identification of the four ways of knowing. However, this process of identification was not always easy, and it became apparent that contextual issues arising from student motivations within a UK business and accounting degree programme were significant themes that affected the ways in which ways of knowing were manifested.

As discussed in Chapter 4 (section 4.3) context is a central issue within a research project of this nature. Baxter Magolda (1992, p.191) stresses the social constructivist nature of research into ways of knowing, and acknowledges that this raises issues concerning the ‘transferability’ of conclusions. She recognises that the perspectives generated by the University of Miami students cannot be assumed to be applied within other contexts. Thus she asserts that: ‘transferring the insights from the last five chapters to students with different characteristics in different contexts requires taking a step back from ways of knowing and patterns within them to underlying story lines. [] By underlying story lines, I mean the threads that run through the collective student stories that are more general than the specific ways of knowing or patterns within them.’

Baxter Magolda’s storylines comprise:

- the development and emergence of voice
 - from repetition of what others say to developing one’s own perspective
- a changing relationship with authority
 - from initial reliance on authority to moving away and developing their own
- evolving relationships with peers
 - an increasing value attributed to peers as knowers in their own right.

These storylines are supported by a substantial body of research conducted on epistemological beliefs (Hofer, 2004a). As discussed above, these storylines were recognised within our data. However, it is also realised that these were affected by themes that appear to arise from the particular contingencies of a UK business and accounting degree programme.

Within the interviews, four contextual aspects of the students' experiences emerged as being central to the way in which they viewed their university and placement experience. These did not arise as a consequence of direct questions contained within the interview protocols. They either arose (in one form or another) as a natural follow-up question within the interview, or students volunteered the information during the course of discussion. Thus observations were obtained about these aspects from most, but not all, students.

These contextual features include:

- extrinsic motivation – a focus on
 - obtaining a business-related qualification
 - a good degree
 - a positive attitude towards placement
- a strong focus on the organisation of learning and attention to the requirements of assessment.

A discussion of contextual features

Extrinsic motivation: a focus on obtaining a business-related qualification

Motive is central to an understanding of the meaning that students attribute to a situation or context. The 11 BABS students who were interviewed all described why they chose a BABS degree. For ten of those students a prime reason was that it provided a broad business knowledge base and did not close down too soon their options in relation to future career paths. Paul provided a good example of this type of reasoning, regarding:

'Business Studies as being the more open degree and also Business Studies, as opposed, to Accounting, Finance and Marketing is also more broad, so, yeah, I've gone down the business route, but I haven't yet specified what I'm going to do at the end of that and I feel, with the addition of professional qualifications, I can select my route. So it's a kind of a way to go, business route, not close my options too much, but it stemmed from also kind of favourite subject back in school as well, I guess. It was something I was naturally good at.' (1P: 11)

Only one student was rather more negative about her choice of degree. As Joanne explains:

'I chose it because I took business studies on because I was thinking of the end result and what I could get with that, um, and I'd also done it at secondary school, I did it as A level. I never liked it, but I carried it on ... [] It's because of the theoretical work, I'd rather be hands on. Actually we bring me back to why I'm friends with perhaps people that I am friends with because, um, because of the courses that they're doing and things like that I think I'd be able to apply myself better to things like that as opposed to business studies which is, you know, purely ... purely reading and essays. *And you've never been tempted to change?* I didn't have the guts to change. Um, after my first year I thought 'this is awful'. I hated it (laugh), but I didn't have the guts to change actually. I don't know why.' (1P: 452)

However, even Joanne is *thinking of the end result*. Six BAAF students were interviewed and their choice of a BAAF degree provides a contrast with what has just been described for the BABS students. They wanted a good business-related degree that was more specific and more focused. They were also influenced by their intention to pursue a highly regarded professional accountancy qualification after completion of their undergraduate studies. This is summed up best by John:

‘Um, always fancied working ... I’ve never had a problem working with numbers ever since I was at school. I went through A levels, did maths and that, and never found it to be particularly troublesome ... and because obviously accountancy is business based I wanted to work ... like get a business qualification rather than doing something vague like business studies which is pretty much ... you know you can go into anywhere then, rather than specifying one area and especially as it will help me with my professional qualification because I get lot of certain exemptions and what have you ...so.’(1F: 11)

However, dilemmas arise out of a choice of either a broad-based degree qualification or a more specialised one. This is summed up by Tony on the one hand:

‘Business Studies is wonderful because it gives me quite a broad range. It’s also crap because it doesn’t specify anywhere, so I sometimes feel slightly wondering between, ‘Maybe I should have picked a slightly more specialisation’ [sic], just like maybe more like marketing or finance, than being.... sort of more channelled, but because it gives such a broad overview, I know I can do anything with it, so...’ (1P: 23)

Leo, on the other hand, comments:

‘I mean I really don’t think I’m going to be an accountant, but that’s pretty much my feeling and it is a little bit ... it kind of annoys me really ... you know, I don’t know if I would do an accounting degree again. []And that’s not taking anything away from the course ... I mean the course is obviously ... it’s been ... it’s an accounting and finance course and that’s what I wanted to do when I left school because, you know, I was always told that if you’ve got a grasp of figures or whatever that can be applied anywhere in a business really. So, you know, and I thought that I wanted to go into business and things like that. I probably still will somewhere, but I don’t know if I’ll be an accountant (laugh).’ (1F: 573)

Of the six BAAF students, five remained committed to the course, but had doubts about whether they wished to become professionally qualified accountants after graduation. Most envisaged working in business, but possibly taking a wider finance-related role.

The drive to get a ‘good’ degree: a 2:1 classification

An overriding issue for practically all the students in their second and final years was the need to get a ‘good’ degree, with a consequent strong focus on meeting assessment requirements. Students described increasing engagement in their studies after their first year and a steady sharpening of focus, culminating in an all-out effort in their final year. This is summed up well by Emily:

‘I think when I first came in the first year when we were all fresher and all that kind of thing, you’re a bit more naïve to it I think. I wouldn’t turn up to all my lectures and tutorials, the half-past eight ones ... I think I had one Friday at half-past eight and went out on Thursday

night and I think probably went, to be honest with you, to that one about five times the whole of the year. [] But I think now I've realised that now it actually counts, doesn't it ... it wasn't ... the first year was just a matter of partying which is why I probably did it, but second year is more about grades isn't it? (Emily 1P: 374)

The final year is about getting a 2:1 degree classification:

'So I would love to get ... I want to get a 2:1, so any higher is a bonus, but I'd have to work very hard I think because there are lots of my subjects that are low ... like finance being 50, so []Yes, I'd like to end on a 2:1.' (Emily 1P: 793)

The need to obtain a 'good' degree was a recurring theme in students' comments during the interviews, and this inevitably meant that students were highly attuned to assessment requirements.

A strong focus on the organisation of learning and attention to the requirements of assessment

Students were asked, when thinking about their second year, to describe their most significant learning experience. This set off a train of thought and elaboration, aided by appropriate prompts. Students' responses fell into four broad categories:

- the organisation of learning
- feelings about learning
- maintaining attention
- the relevance of learning.

Table 8 shows the number of responses that fell within each category and sub-category (indicated in brackets). This indicates, rather mechanistically, what came over quite markedly within the interviews – that the most significant learning experiences generally related to the organisation of learning. This was very much in accord with the focus on getting a good degree and a lesser focus on intrinsic interest in business and accounting, or sub-specialisms within these fields of study.

Year 2 Broad category	Sub-categories
The organisation of learning (13)	Working in groups (4) The need to organise and prioritise one's work (5) The value of being compelled to keep up (3) Working on one's own (1)
Feelings about learning (1)	Satisfaction and relief (1)
Maintaining attention (3)	Interesting and enthusiastic lecturer (3)

Relevance of learning (7)	Ability to relate subject to real world (3) Individual subject interest (2) Making links to other subjects (1) Realisation about nature of critical analysis (1)
---------------------------	---

Table 8: Categories of significant learning experiences in Year 2

Students described with great fluency how they went about their learning, and this strongly contrasted with their more faltering accounts about what they had studied and how they arrived at a view within particular subjects.

A positive attitude towards placement

Students generally evidenced a highly positive attitude towards placements. Again there tended to be different reasons why the BABS and BAAF students chose to do a placement. BABS students regarded it as an integral part of the degree and saw it as providing significant added-value. The placement was perceived as offering several benefits:

- experience and an improved CV
- an opportunity to find out what business is like
- provision of a focus in a specialist area of interest.

So far as the specialist focus was concerned, the placement provided an opportunity to identify a possible career route.

Consequently, BABS students spoke positively about the placement. Paul, upon his return to university, made a presentation to second-year students, telling them:

‘...graduates really have the battle of the critics at the moment in terms of, you know, we get told that we have no skills and abilities at the end of university, so I think this is a really good opportunity to get some skills and abilities which differentiate you from the rest of the group. Now the thing is that a lot of other people are doing, you know, placements, so a lot of people have placement down on their CV now, but it’s really up to you in terms of what you get done and what you achieve on that placement.’ (Paul 2P: 691)

Even Luke, whose placement did not live up to his expectations, still felt that he would do it again:

‘I found it could have been a bit more honest with what it was going to be, but it was still fine. I’d still do it now. I got, well, because I’ve got it in my CV and I did learn stuff. I did learn about the organisation, the (*financial services institution*) and things like that.’ (Luke F1: 345)

In the case of the BAAF students, their reasons for choosing to undertake a placement were more varied. Leo wanted to earn money so that he could avoid taking part-time work in his final year. Joe needed to do a placement to obtain an additional degree from the overseas institution where he completed his second-year studies. The remaining students wanted to achieve a broader experience of business and had not sought accounting or finance-specific placements.

An interesting reflection is that although students had positive attitudes towards placement, it was quite striking that these were *attitudes* rather than specific expectations or intentions. Students did not talk about their expectations of placement. As part of their placement portfolio activities, all students are required to complete an initial audit of current skills and knowledge, and a statement of initial objectives. These are reviewed at the mid-point and end of the placement. However, none of the students referred to this exercise within the interviews, or talked about how their placement experience helped to achieve those objectives – or any objectives. It would appear that students may be involved in ‘recipe following’ (Boud and Walker, 1998). They use this term to describe the situation where ‘elements of modes of reflection are turned into checklists which students work through in a mechanical fashion without regard to their own uncertainties, questions or meanings’ (p.192).

Thus there is no sense of ownership in students identifying specific aspects of the placement that they had made their own i.e. intentional self-development. This confirms the findings of Walmsley, Thomas and Jameson (2006). They enquired into incidents of surprise and sense-making for 20 tourism placement students. The assumption underlying their study was that surprises and sense-making are important elements both within the *adjustment* process when entering new work environments, and as part of the *learning* experience that placements provide. They found far fewer incidences of surprise and sense-making than they had anticipated, thus calling into question the extent to which the placement was a *learning experience*. They noted that ‘although participants evidently intended to undertake a placement, there does also appear to have been at least for some a general deficit of so-called intentional self-development (barring the desire to learn or improve new skills)’ (Walmsley *et al.*, 2006, p.366). Thus a positive attitude to placement appears to be an example of extrinsic, rather than intrinsic, motivation. This is a phenomenon that would benefit from further enquiry.

5.3 Conclusions

Ways of knowing were identified in the interviews, with absolute and transitional ways of knowing being predominant. These findings are consistent with those in Baxter Magolda’s (1992) study conducted in the US. However, it was also found that the contextual features appear to have a significant impact on the way in which these ways of knowing are manifested. The most important aspect of contextual features appears to be that of motivation. It is a powerful shaper of the lens through which students view the learning environment. The positive view that students take of placement indicates that they are likely to be open to benefit from this experience. However, their lack of specific intentions or expectations calls into question the extent to which the placement will be a *learning experience* in the sense expected by higher education. Our findings in relation to their experience of placement will be discussed in the following chapter, Chapter 6.

The most important aspect of contextual features appears to be that of motivation. Motivation is an important factor in directing students' attention, and thus framing how they approach their learning. Yet motivation within university students has not been extensively researched. As a consequence, relatively little is known about what motivates students and the nature of motivation itself. Prior work on motivation within the university sector has focused mainly on the nature of extrinsic, intrinsic and strategic motivation in the context of approaches to learning (Prosser and Trigwell, 1999). Jacobs and Newstead (2000)¹⁵ investigated the value aspect of motivation (goals and beliefs about the degree) for psychology students. They identified two quite different orientations, with some students being motivated more by subject-related activities and others by generic activities (skills and experiences). This is a distinction that has not previously been identified. Yet it is one that may be particularly apposite for business and accounting students. The descriptions of motivation provided above may serve their purpose when taking the holistic view required by this project. However, it does not do justice to the complexity of individual motivations (Dörnyei, 2000; Valle *et al.*, 2003) apparent for the participants in this project. This is clearly an area where further research is needed into the *nature* of student motivation within business and accounting.

The extrinsic motivation described in this chapter explains why, to a great extent, a lack of response and a lack of fluency was found when students were asked to talk about particular aspects of their learning. Our interest was in identifying students' ways of knowing. However, *knowing* as an end in itself did not appear to be a central issue for the students. They found it difficult to recall what they had studied in their first and second years. The fact that the first year does not 'count' in assessment terms and the second year counts for only 25 per cent towards the degree classification is a further contextual feature that is significant in terms of their focus on assessment. Thus it is not surprising that there was a marked lack of response to questions about whether students encountered varying points of view. Our findings in relation to this are discussed in Chapter 7.

¹⁵ The authors provide a concise overview of traditions of research within motivation in the introduction to their paper.

6. Strand 2 findings: the development of a reflective capacity

In Chapter 2 it was argued that beliefs about knowledge, or ways of knowing, underpin the development of a reflective capacity. A way of knowing comprises three elements:

- cognitive (how one makes meaning of knowledge)
- interpersonal (how one views oneself in relation to others)
- intrapersonal (how one perceives one's sense of identity).

Development in all three elements is required, and an assumption underlying this project is that interpersonal and intrapersonal development is more likely to be stimulated within a work-based placement than in an academic environment (section 2.2). Cognitive development is an aim of placement (section 2.3), but at present there is relatively little evidence about the ways in which placement does support academic development.

The findings in relation to the development of a reflective capacity are as follows:

- the placement provides a context in which students have to take responsibility for their own learning and performance
- the placement provides a context within which students develop interpersonally, (through a range of changing relationships with others) and develop intrapersonally (through a changing sense of self)
- placement provides a range of experience that might be integrated with prior learning and lead to cognitive development, but this potential is realised in only a limited number of ways.

This chapter will discuss the first and second aspects of the above findings. These are related to the inter- and intrapersonal elements of a way of knowing. The third finding, which relates to the cognitive element, will be discussed in Chapter 7.

6.1 Placement context: students have take responsibility for their own learning and performance

The placement provides a context in which students have to take responsibility for their own learning and performance.

When students were asked to identify and comment on their most significant learning experience while on placement, the majority referred to the need to take responsibility: for their learning and performance. As placement employees, they felt that they 'had to deliver' and this contrasted with their experience at university – as Rachel describes:

'I think at work you can actually see where it's going, you know, there is, you know, the outcome will affect something and, you know, whereas at uni it's kind of you just plod along and if you don't do it then it's not a real problem, apart from the assignments, but at work if you don't do something then it means somebody else can't do

something and this won't get done and things like that, so ... [] Sometimes I sit there thinking 'if I don't do this ... if I get this wrong ...', you know, so in that way you do have to approach it slightly differently and different learning ways.' (Rachel 1P: 479)

Emily also highlights this and recognises the wider implications if she does not perform well:

'Um, yes I think **it is different because with university you're doing it for yourself, aren't you whereas working here there's also a lot of other people that you want to please as well.** Like I want to do well and keep everybody happy and all that kind of stuff. *You want people to think well of what you do?* Yes, yes, and think that I'm good at my job and all that kind of thing. [] Mmm, big difference because at university it's a little bit more relaxed in the sense that you're doing it for.' (Emily 1P: 726)

Even where students were not expected to assume a high level of responsibility, students felt they had a responsibility to their co-workers. Rudy expresses this as follows:

'Well, so far, I know, I'm only really, I've not been getting into it, what the roles I've been given so far are not really, really sort of high on responsibility but I think there's definitely a bit more pressure, a bit more pressure in the workplace than I would have said in the classroom. Different pressure because, yeah, it's different, it feels different, like obviously having to do a piece of work and get it in for somebody else. **If you don't, you're going to sour your relationship with that person.**' (Rudy 2: 81)

Although Colleen found it quite daunting to be given the responsibility to deal with unfamiliar tasks and situations, she observes that she learnt a significant amount from such experiences. Like Rudy, she found that the responsibility of rising to the challenge in these situations was also linked to a realisation that how she performed in her role had potential implications for someone else's full-time job in the organisation:

'I mean it was horrible at first and I thought 'oh God, I don't know about that, I've only been here for a couple of weeks, I can't do that', but you learnt so much ... **I learnt so much more from being thrown into situations,** um, than I would have done if I'd just sat there and ... just wasn't given anything to do. *So how did you cope with being thrown in at the deep end?* Um, I don't know, you just had to get on and do it. I mean especially ... I mean it's quite daunting. You're in an organisation, you know, it's not like you can do something and you can get out of it, or everybody else has got proper jobs and **so what I had to do was actually contributing to someone's job and, you know, it was quite a big pressure,** but you had to do it, there's no way out I suppose, you just got on and do it.' (Colleen 1F: 446-50).

Responsibility does not necessarily have to create pressure, but can bring a sense of achievement. Hence Kirsty, having asked to be moved on from a rather unchallenging role, found herself taking responsibility and learning:

'Then got this one...[*new role*] I set up like quite a lot of spreadsheets and ways of doing things and then when there was anything needed doing, she asked me, and I actually I really like that. **I love the responsibility of being given the opportunity to do something, and just then to say, 'Well, actually, I can do it.** I'm really glad that you've given me the opportunity.' (Kirsty 2F: 435)

Such responsibility also related to the students' own learning. For example, in the case of Joe, he was largely left on his own to teach himself:

'Um, within [*placement company*]... significant [*learning experience*]? **Probably what I've taught myself more.** *Really.* I would think, um, with the ... I don't find they've given me too much information.' (Joe 2P: 84-89)

For Tony, learning occurred through:

'(Pause) **Trial and error.** *Can you give me an example?* The computer systems that they use are slightly questionable and they're a little bit outdated, but I don't feel that anyone in the office has got particular time to help me with things and as myself, even they've said I've excelled as a trainee and learn everything quicker than anyone has done before they've ever seen, so because of that **they've just left me to my own devices.**' (Tony 1P: 511-15)

In most cases, the students perceived themselves as employees who were left to just 'get on with the job', and therefore a balance had to be struck between asking for help and not being a constant distraction to co-workers. In addition, students were often expected to take on additional responsibilities when their line managers were away, as in the case of Rachel and Joanne, where they had to use their initiative to deal with any issues which arose:

'Um, **I think doing things for yourself and not always, you know, relying on other people,** you know, they've got their own things to do so it's ensuring that you do things on your own, you know, you do it off your own back and things like that to do it, um, and also, you know, communicating with people yourself, so ... like my manager was away for a week, so, um, you know, I was doing some of the contracts and there was a problem with one of the contracts, so people came to me to try and sort it out so I had to phone up the different people and, you know, try and sort it out that way, so it was ... that was about three weeks after I'd started, so 'I can't do it' ..., so it all worked out.' (Rachel 1P: 391)

'Learning experiences? I think **being left, um, on my own I learnt the most,** especially with so many things going on at the same time, um, you have no choice but to act on it. *So how did you ... I mean did you feel, you know, a bit left in the deep end?* No, no, not at all. I always was ... [*her manager*] was contactable although you wouldn't want to do that when she's on holiday and I always had [*head office*] to back me up if I did need any help, so I wasn't completely on my own, but at the same time I was in this [] office, so, um, I think ... yes, being here on my own really and dealing with things and acting as quickly as possible (laugh), um, yes.' (Joanne 2P: 47-51)

The experience of successfully coping with challenging, unfamiliar situations helped students to develop their confidence, enabling some to actively seek increasing responsibilities and leadership roles in the organisation. These included leading the discussion in meetings (Rachel 2, Leo 1), being in charge of projects or departments (Rachel 2, Emily 2) and seeking promotion (Kirsty 1, Tony 2). However, two students acknowledged making major mistakes when carrying out their responsibilities or when confronted with unfamiliar situations, but they were able to reflect and learn from these less positive experiences (Rachel 2, Leo 1).

6.2 Placement context: developing interpersonally, through a range of changing relationships with others

The placement provides a context within which students develop interpersonally, through a range of changing relationships with others.

This was a striking aspect of the placement experience and a strong theme among the students interviewed. It would have been possible, looking at the experiences described below to have categorised them as ‘the development of communication skills’. However, what unified all of these experiences was the fact that students were finding themselves undergoing a series of changing relationships with others. These ‘others’ might be other employees, colleagues, different levels of managers and customers/clients.

One aspect described by the majority of students related to the way in which they were now coming into contact with a wide range of people they had previously not encountered. This is expressed vividly by Joe:

‘...what amazed me ... it’s hard to go back to when I started really [] it was a bit of a shock, you know, starting work [] but, um, the main shock for me was in going through my life so far, you’ve got your parents, you’ve got your friends, you go to school, you’ve got your friends at school, that’s mainly your group of friends. Then you go to sixth form, some people don’t go to sixth form, some people get jobs and you get ... that little bit of a group of friends is a little bit of diversity. **Then you go to work and you meet everybody else in the world** (laugh), you meet poor people, you meet people from all the classes,. []You learn about all the other social groups – we get very narrow. I mean all I’ve done with my life is school, university ... that’s ... gone to (*European country where he studied for a year*) ... placement ... Yes , I...., only twenty-one and that’s me really.’ (Joe 1P: 283)

This exposure to ‘everybody else in the world’ poses issues and problems for students. A major issue was the need to develop the ability to relate to a range of different people. For Rudy, this means working out what to say to the ‘security guy’:

‘And when you’re in the working environment, it’s a lot..., you don’t say..., you know, you don’t talk about certain things and so **I found it quite a hard adjustment to like finding topics that I can talk to people about** because I mean, for the first two months I’ve been trying to work out a conversation I can have with the security guy, because I don’t..., because he’s not interested in what I’m interested in. Those that I mention, he’s like ‘Mmm, not really.’, you know. So, yes, it’s a bit of a learning curve in that sense. (Rudy 1P: 94)

Emily, in her role, found that she was meeting people she would not usually come across: all ages, all nationalities. However, even where the range of people was more restricted, students still commented on the need to relate to other individuals. Thus Wayne comments:

‘...although my department’s relatively young I’m still ... I would assume a good four years maybe younger than anyone else in the team and on top of that most people that I go in work with or meet people outside again, I’m probably ... well I’m not even half the age of most people, so it’s very different ... **it’s a different mindset I think.**

Maybe the way you talk and interact with people ... different generations is completely different.' (Wayne 2P: 310)

He went on to describe how he had started to read a daily newspaper in order to be able to participate in conversations with colleagues about topical issues.

Students described a range of different types of interaction with others. These included:

- persuasion (involving empathy and assertiveness)
- managing expectations (when one is unable to deliver, when the customer is in the wrong, when the student is in the wrong)
- reassurance
- appeasement
- pacification
- negotiation
- exchanging opinions
- asking questions without losing face
- obtaining information
- conveying bad news
- representing others
- standing up for oneself
- making presentations (conveying information, opinions, leading discussions)
- liaison.

The students spoke most fluently about these experiences, and it was obvious that they had made a significant impact on them. The nature of the experiences was such that successfully 'coming through' led to an increase in confidence. This is discussed in the following section.

6.3 Placement context: developing intrapersonally, through a changing sense of self

The placement provides a context within which students develop intrapersonally, through a changing sense of self.

Confidence

Almost all students found that they developed in confidence. Although they commonly used the term 'confidence' to express their sense of change, the development of such confidence was linked to a variety of experiences. Joanne refers to a developing sense of confidence that embraces the ability to accept that she may make mistakes. This allows her to *act*:

'Um, I think I take the bull by the horns now, and **I sort of dive straight into it, instead of standing back and ... I'm definitely far more confident than I was at the beginning**, um, I just ... because I sit next to my manager um you know, we're quite close and I can hear everything she does and we work really closely together, so I've just kind of followed in her footsteps really and just followed her advice, she's

really helpful, so you know if she notices that I've ... I don't know, perhaps given some wrong advice to staff, you know, we'll just...we'll have a meeting or something ... we meet every Friday just to see how things go and, um, she'll say, 'Well, next time perhaps if we tackle it this way', um, and I just take on board the advice that I'm given.' (Joanne 2P: 91)

For Holly this has been profound and she expresses her amazement at her achievements:

'I've got much more confidence I think as a person. I think I really have like ... I think it's changed me a lot. I don't know, not that I didn't believe in myself, but I sort of ... when I do look back on the things that I've done **I can't (laugh) quite believe that I've done that** and before ... like when I had a job ... like when I was at uni I was thinking 'God, like, I don't know how I'm going to do any sort of work, like I don't have a clue really what the outside world is like', and then you sort of ... I don't know, like then just dealing with people on a day-to-day basis it gives you ... I think my social skills are sort of upped a bit and I think, you know, you learn ... you just learn from everyone and I think that's just changed the way that I am. I'm just a more confident person.' (Holly 2P: 911)

Where an employer has confidence in a student, it rubs off on the student. John was asked to train a new colleague in the use of Excel:

'I mean it was all basic stuff to me, but to someone who's never used it or really used the program in-depth, um, so that was sort of ... that was learning for her, but obviously for me as well. You know, it sort of ... **it gave me confidence in the fact that obviously my team knew that I could do this.** They felt confident in me to be able to teach her all the relevant stuff and then ... so I spent the afternoon with her taking her through all the stuff and that and I think we both got something from it which was ... I found that good, you know.' (John 1F: 464)

A combination of the interpersonal and the intrapersonal: prioritisation

Quite a few of the students talked about how their ability to prioritise had been developed by their experience on placement. Developing the ability to prioritise involved several aspects of the intra- and interpersonal. The following are all aspects that were described by students:

- an ability to identify personal goals
 - an ability to set personal wishes on one side (deferred gratification)
 - a sense of perspective concerning 'success' or 'failure'
 - learning patience
- knowing one's capabilities and what can be achieved within a time span
- an ability to adapt to changing work goals/demands
- an ability to say 'no' (assertiveness)
 - managing the expectations of others
 - dealing with pressure
- accepting 'failure' or mistakes.

These comprise a complex set of interacting aspects. To manage these successfully is, indeed, to 'grow up'. A longer extract is provided here as Wayne recounts his experience of what is involved:

'It's strange ... I think I've **definitely grown up a lot** over the last eight months now. Yes, more grown up, an awful lot and you just think about things differently, and **things that may have seemed important before or crucial are now just trivial** and they're not big deals and they're not ... *Can you give me an example?* ... Um, well looking back to making the presentation again. That was like a real 'oh my God!' and now it's like ... I still would be nervous and I would prep myself, but it's not the end of the world, it's not a big deal and also when I first went to work ... it went with the, um, say like just missing things and social things ... 'oh won't be able to do this, won't be able to do that', **now well if you miss that one because of something else, there'll be another chance**, another opportunity, just those sort of things. *Social's not quite so important?...* Yes, that's right, yes. **You have to do what you have to do**, and before it would be like terrible, but my mindset would have been 'I can't do any work on a weekend' or 'I can't work after these hours or those hours unless I have to', if something's got to be given in obviously you've got to put the time, whereas now from working ... I mean when I first started on my placement it was 'well I'm there 'til five, as soon as that clock hits five I'll be out of that door', now it's like 'I don't particularly want to be here, but you've got to do what you've got to do', so I mean on Tuesday I didn't finish until seven and that was a bit of a killer, **but at the same time I think 'well I'll benefit from the hours later on**, I can take time off', and it's just pluses and minuses all the time, **so it's more the bigger picture I think.'** (Wayne 2P: 335)

The ability to prioritise reinforces a growing sense of confidence, and leads to others acknowledging your right to choose what to do and when to do it. Holly found that, not only did she learn to manage her workload, but her colleagues respected her for this:

'Oh God, yes, definitely. I'm much more confident. Much more confident to anything ... anything ... I don't ... I know when to say no (laugh) as well.' (Holly 2: 462)

'I've got my own work to do and I don't ... I think people respect me for ... in a weird kind of a way.' (Holly 2P: 478)

6.4 Conclusions

This chapter has looked at how placement has provided a context within which students developed interpersonally, through a range of changing relationships with others. They also develop intrapersonally through a changing sense of self. This has a powerful impact upon most of the students and, as will be discussed in Chapter 7, this appears to lead to a more focused application to their learning in the final year.

A development in inter- and intrapersonal terms would appear to bring students into a position whereby their developing sense of self might support a more enquiring and questioning approach, leading to cognitive development. However, while it was found that placement provided a range of experience that might be integrated with prior learning and lead to cognitive development, this potential was realised in only a limited number of ways. This issue will also be discussed in the Chapter 7.

7. Strand 2 findings: the improvement in academic performance of placement students

The findings in relation to improvement in students' academic performance are outlined below.

The relative improvement in academic performance achieved by placement students in the final year:

- seems to arise from a developing sense of self (greater intrapersonal contribution) that leads to a more focused application towards their learning
- placement provides a range of experience that might be integrated with prior learning and lead to cognitive development, but this potential is realised in only a limited number of ways.

Each aspect of these findings will be discussed in turn.

7.1 A more focused application towards final-year learning

The theme of a more focused application towards learning was the strongest to emerge from the interviews. This arises from a developing sense of self, but cannot be seen in isolation. It is clearly connected with the findings discussed in Chapters 5 and 6: the strong motivation that students have to do well in their final year, and their increased confidence arising, in part, from interpersonal development, but also from a growing sense of efficacy. Thus it is highly likely that this contributes to an improvement in academic performance in the final year.

The focused application to learning was evidenced in most students' comments and was usually expressed with considerable conviction. The central change that students identified with reference to either their imminent or actual return to university was their intention to work hard and with more focus. For each student this has a particular character and flavour. For Holly, the final year is the 'most important year of her life', and this is a backdrop against which she discusses how she may deal with it:

'I think I sort of hype myself up about it because **it's the most important year of my life** (laugh), but, um, I am a bit worried and also I'm glad that I've done this placement because **I've got into a routine now** of getting into work at half-eight and finishing at half-five or whatever, **so I'm going to try and apply that to uni...** [] I've been speaking to other friends who are on placement and they've said, like ... and I've said 'We really should try to ...', because like before it was sort of like get up at two ...pop into uni for about three and then stay there until five and then I'd have all this work to do when I got back and it was just crazy, so if I ... you know, get up early and I go to uni for the whole day and stay until, you know, six or something and then come home and I've got the whole evening ... [] So I'm sort of hoping that **that is the kind of mindset** which is why I don't really want to leave here [placement] too early.' (Holly 2P: 552)

Leo, having already started his final year, explicitly refers to the fact that his motivation has changed, and he too refers to putting in the hours, otherwise he feels that he's 'wasting valuable time':

'I have been more self-motivated this year. I think my placement last year helped me to do that because in the second year, I mean the first year ... well forget about it to be honest. It was, you know, I didn't do as much uni work as I should have done and last ... the second year I think I made up for that, but, um, this year ... I mean things like starting at early times ... whereas in the second year I probably ... if had a lecture at say midday then I would ... in the morning I probably wouldn't try and get anything done, I'd just prepare myself for the midday and then maybe do something afterwards in the afternoon, but having to get up at 7 ... well at least 7 o'clock in the morning to get into work by half-eight ... **I think it just feels like you're wasting valuable time now.** I've definitely started working more in the mornings and I've tried to carry on getting up early to get university work done and things like that.' (Leo 1: 70)

Later in his final year, Leo confirms that he has more or less adhered to this more disciplined regime: 'I don't know why, I feel guilty with myself, really, sometimes I don't need to be out of bed before ten, but it just feels like you've lost some of the day and you're not going to get that back, so...'. (Leo 2F: 59).

Wayne expresses similar sentiments, and also refers to the fact that his concentration span has improved:

'...first thing to begin with is just the amount of time in the day ... **the number of hours I can concentrate on something.** I know it sounds silly, but I used to find like going from lecture to lecture to lecture, say maybe three consecutive lectures, by the time you reach the third one my concentration span is almost just switched off, I'm almost sat there. []... you're not constantly taking things in at work, you're just doing things which is slightly different, but I am able to sit there for eight hours a day and constantly do things and not feel 'oh shall I go and do this or shall I go and do that?', [] it's all theoretical at the moment, but I hope that when I do go back to uni if I've got coursework or exams I'll be able to sit there for longer periods of time and constantly revise and take things in and I think that's very important. Um, I've got into a routine of waking up earlier as well which should help (laugh). **There's an extra two or three hours in the day now, especially in the mornings.**' (Wayne 2P: 274)

Luke uses the term 'work ethic' (Luke 2F 1:105) to describe the attribute he has acquired during placement and that he now applies at university. Whereas Rachel comments that she is now 'more focused and do more off my own back rather than thinking 'that's what I have to do' and that's it' (Rachel 2P:173).

Paul, too, referred to a changed view of the university on entering his final year. There is a sense that he is about to take personal ownership of what happens in his final year:

'I was thinking about this as I was walking down the corridors actually¹⁶. I really was thinking about the fact that whereas before it was just an institute that I was kind of ... I was trying to do what they wanted me to do, **whereas now I'm coming back to use the university** (laugh). So that's probably what I should have done in the first two years. I'm really determined to...'. (Paul 2P: 747)

Spencer, who had previously worked in a firm of accountants in his gap year and undertaken part-time jobs while at university, had already developed a disciplined

¹⁶ Paul's second interview took place at his university.

approach to work and his studies. However, he confirms that he observed a change in the way his friends approached their studies when they returned from placement:

'I knew what it was like to get up Monday to Friday and work and have the weekends off, so I think in terms of me personally I don't think my sort of attitude or anything else has changed that much. **Um, I can say more specifically for people that I've seen last year, they've gone away and done a placement and come back again, I think you can see a noticeable change** and I think if that was the case with me, then I think I would have had a noticeable ... yes ... is this making sense? *What change do you see in your friends who've come back?* Well they're more mature, they seem to be more motivated, um, seem to be more organised, you know, you just notice a more mature person come back after, you know, [] **eight hours a week now doesn't seem like such a hard thing**. You know, I think you see people moan more before ... 'Oh God, university, how tiring is this?!', you know, and now ... they realise ... 'Well let's enjoy this final year, it's not that gruelling', do you know what I mean?' (Spencer 2P: 442)

This phenomenon did not necessarily apply to all students, and it is interesting to consider the position of those in that category. Colleen, now in her final year, indicates that she wanted to work more consistently, adhering to the 'nine to five' regime, but comments that 'it hasn't been a success really' (570). This is not surprising as Colleen admits to not enjoying her course and has found it difficult to engage with her studies.

Rudy does not propose to change his approach to his studies in the final year because he is already on target to achieve a good degree classification based on his existing approach:

'...if I was on the borderline of a 2:2, if I was, then I think I'd be going and working a lot harder because I'd know now that I've been here... I've seen what doors would be open to me and how much money I'd be getting... I'd be able to smell it, if I.. if that was the case, but as I'm like on a high 2:1 and a first seems a bit impossible...' (Rudy 2P:201)

This is consistent with Rudy's general approach to his degree course, where he has always been organised and clear about what he wants to achieve.

'At university a lot of people leave things to the end. I never did that, that was just because I knew if I left it to the end I'd panic.' (Rudy 2P: 233)

7.2 The limited realisation of a potential for cognitive development: the integration of theory and practice and 'seeing business differently'

Placement provides a range of experience that might be integrated with prior learning and lead to cognitive development but this potential is realised in only a limited number of ways.

The QAA subject benchmark statement for General business and management states the placement is a means of supporting the 'integration of theory and practice'. This is translated into the following objective for the placement year within the university

programme for this project: 'to allow students to reflect on and apply theoretical knowledge gained from their award'. These two objectives differ in wording and, possibly, intent and this issue will be discussed further in Chapter 8. Notwithstanding this possible difference, this section will discuss themes that arose within the interviews and that are relevant to these two objectives.

Within the interviews students did not readily reflect on the application of theoretical knowledge. As such it was difficult to identify a strong theme. Three aspects emerged as central:

- the extent to which first- and second-year studies informed students' experience within placement
- the extent to which their placement experience led them to question the inter-relationship between theory and practice
- their changing view of business.

The extent to which first- and second-year studies informed experience in placement

It was difficult to identify the extent to which prior studies informed experience in the placement. This arose because all students found it difficult to recall what they had studied in the first and second years of their degree course. As discussed in Chapter 5, the first year (level 1) does not contribute towards the final degree classification, while the second year (level 2) contributes 25 per cent.

Where recall was possible, some students found that they were able to recognise or 'name' what they encountered on placement as a result of their studies, but few students volunteered specific examples of how particular subjects related to their placement experience. These aspects are discussed in more detail below.

Difficulties in recalling what had been studied in years 1 and 2

Emily's response, in being asked about her prior studies, was fairly typical:

'Um, I've never really thought about it actually, maybe I should have done. I can't remember what theories I spoke about either.' (Emily 2P: 644)

Usually a student might mention a particular concept, and then struggle for further examples:

'...well looking back I struggled to remember what I studied anyway (laugh), apart from the fact that somebody at work the other day mentioned three hundred and sixty degree feedback (laugh), and I was like, 'I thought that was just theory!' (Laugh.)' (Paul 2P: 648)

Clearly the above had an impact on Paul, as something which he had studied takes on a new aspect and it is no longer 'just theory', but he did not identify any further examples.

Spencer found it difficult to recall theories he had studied previously, but he is quite certain that some would not work in practice:

'So, to be honest I can't think off the top of my head anything to do with any of the theories that we've learnt, but, um, but there were certain ones where they just wouldn't work in real life. They're theories, you know they're fine on paper, but you couldn't put them into practice.' (Spencer 1P: 392)

Students realised that they should be able to recall what they had previously studied:

'Um ... I wish I had all my modules in front of me, I'd be able to tell you, but I can't...I can't actually remember. That's not good is it (laugh).'

 (Joanne 2P: 461)

The problem with lack of recall is that there isn't then much to reflect upon. However, even with recall, there can be premature closure because a theory isn't deemed to be 'relevant'.

'I mean are you finding ... if you think back now to what you studied in the first and second year, do you see any of that differently now? Um, not really. No. A little bit I guess, because sort of ... (pause) ... I can't really remember it actually. (Laugh) Then obviously not. (Laugh) Yes.... I don't know, it is just very different in the real world. I think it is really ... the same sort of underlying theories apply, but I think it depends on what type of environment the company is in. I don't know. Yes. So thinking, say, what did you do in the first year?[module name] yes, that sort of HR [human resources] wasn't it? Yes, mmm. But I mean I don't really have anything to do with HR. Except that you're in one of the human resources now. True. (Laugh).' (Holly 2P: 197)

Holly, in not seeing herself as a human resource, has closed down upon an opportunity to reflect on one particular aspect of her studies.

Recognising and labelling business practices

Some students commented that their prior studies provided them with a way of *naming* practice:

'You can put different names and posh business names with what you're actually doing.' (Emily 1P: 97)

When Rudy is asked, '*Do you see how you could apply those theories or how they might be relevant?*' he responds:

'To modern business? Some of them are. I mean, I hear.... It's been useful in the fact that when I hear names mentioned, or particularly HR stuff, a lot of HR stuff I hear, like I know what's being said.' (Rudy 1P: 84)

For Rudy, theory gives him an entrée into participation, rather than an entrée into critique. This is not surprising since a major theme for Rudy was the need to find a way to participate or network within his placement organisation. Wayne found that he not only recognised and could give names to practice, but they could introduce these terms himself. However, once again, there is a problem with recall:

'Um, (pause) um, I think (pause) mmm, I personally think it has been useful and there's a lot of ... I just ... when I say terms and technologies used it's like phrases and processes, everyone relates back to the same processes like, say, 'just-in-time' or something like ... that sort of process that people use and they talk about and they might refer to, so obviously I've picked up on these things and also the things that I've picked up on through studying they might now use, **but I can introduce things ... Can you give me an example? Well, I don't know if I could go that far.**' (Wayne 1P: 402)

Chloe found that recognising and being able to relate aspects of university studies with practices in the workplace provided her with some status and some sense that university learning might have some practical value:

'...um going back to the [*name of team*] people that are reviewing the processes, we done that in Ops [*operations management*]. *Right*. Um and we haven't really ... they gave us a presentation on, you know, why they're doing it and like parts of that came out and it was like, you know, well maybe it does ... maybe it is, you know, it does make sense to look at that, because obviously there's people in the department that didn't ... never heard of it and it was like, you know, 'I've done that before, you know', then after I was talking to my supervisor about it, I felt really ... (laugh), I do listen. (*Laugh*) *So it is relevant to real life after all?* Yes, it is, yes, it's quite good to see that actually when you learn things in uni and then it does actually come out, it is good.' (Chloe 2F: 443)

For Chloe this is particularly important, given her general sense of equivocation about her studies. However, this appeared to be a lone occurrence and she was not able to provide any further examples.

Where there is recall: bringing existing knowledge to placement

Students were generally not able to recall specific areas of knowledge that they brought with them to placement. At one extreme Rudy perceived quite a separation between university and placement such that:

'The only real skill that I seem to be able to take from University is time management where my ability to like plan things, the discussion-based learning that you do in your lectures and with tutorials, when you discuss things, and [].... because I do Business Studies and this is a business environment, general business knowledge, but apart from that, there's..., you know...'. (Rudy 1P: 81)

However, where knowledge is brought to placement, then it can mean that it is seen differently as a result. A more lengthy extract is provided here, because it indicates the lack of fluency involved in thinking about this:

' Obviously HR I do, I understand it more. Others I haven't ... mmm. *Any other subjects?* I was going to say Operations, um, yes ... that, because we work quite closely with the Operations partner also, who's involved with a lot of what we do. And seeing his sort of strategic planning and stuff and seeing his reports that he does, really interesting. It's all about moving the company forward and how to do it. **I think Operations I've seen in a different light**, um, and I could perhaps put what I've seen on paper into practice, or at least understand, you know, simple things such as ... there's loads of diagrams isn't there in operations and I think now I can actually see

how they work. **Um, as for all the rest I'm just trying to think. I can't even remember what I did.** Finance? Um, no. I've had no part in that at all. Um, thank God! (laugh). Um, what else did I do? *You probably did some IT ... um, in year two, did you do Marketing?* **Marketing, yes, Marketing.** Actually, yes, that's come into it quite a bit because I've worked with Marketing on a lot of things, like, um, careers fairs and things like that. Um, so yes, marketing definitely. I think, um, I think they can work sometimes quite closely together, um, HR and marketing, especially when it comes to recruitment and things and advertising and stuff like that, so marketing definitely. Um, IT, um, it's difficult to say with that because of the systems, you know, you learn how to use the system, **not IT as such.** Um, (pause) I'm just trying to think what else there is. Um (pause).' (Holly 2P: 453)

Joe was more positive than Holly, and refers to two concrete examples:

'I can see you can implement things and I can see how ... um, when you see things being implemented in the workplace it's a lot easier to understand the importance of something than someone teaching it to you in the lecture hall and there's no other way of doing it, you can't get round it that's the problem, but seeing things implemented, um, just all the different techniques you use ... even like management and organisational behaviour, you can see all the different things, you know, going on around you and **'Oh that relates to that', and then it all becomes ... it sort of like sets into place just a little bit.**' (Joe 2P: 47)

Mostly students were generally vague in their discussion of this. As Rachel indicates, there are sparks of recognition but no sustained enquiry, and there is some evidence of disappointment at not being able directly to apply what was studied at university to her placement work:

'Good old [*organisational behaviour (OB)*] **Because things keep coming back** and, you know, different structures and the different, um, things that they're implementing ... 'oh yes, that was OB all those years ago', and things like that, **but I mean I haven't really put into practice that much from university,** it's been, you know, different things and none of it has been straight accounting or ... it's business ... [] **I had visions of it going in and using what I did at university, you know, in the office whereas it's worked out where it's been new things and, you know, I haven't quite put into practice everything ...'** (Rachel 2P: 354)

It is interesting to note that Rachel was the only student to comment on this revised vision of 'using what I did at university'.

The extent to which their placement experience led them to question the inter-relationship between theory and practice

Once again, there was relatively limited reflection on this. There were two main aspects that students commented upon. First, they considered that their learning would be, or was, made easier as they were able to relate it back to their experience and, second, they found that theories do not quite work out in practice.

Can see what theory meant or relating it to what you know

Students did not necessarily talk about 'theory', but referred generally to how they might make more sense of things in the final year, based on their placement experience. For example, Emily will 'know what I'm thinking about':

'I think it will fit into my course a bit more now, because I'll know what I'm thinking about when I look at marketing and the mailing things that we have to do.' (Emily 2P: 355)

This is rather more vividly described by Holly, and she does refer to 'theory':

'...you know, HR is all ... well it's all theory and here I can see I'm not in HR, but HR policies that are being put around the company I can see ... now see what that theory meant, whereas before ... and learning for exams I was like 'Yes ... so and so points for this aspect and then so and so many points for that', but I couldn't ... I couldn't ... I think **it would help you understand more if you could really imagine what happens which is why I think a placement's important.**' (Holly 1P: 209)

However, it is unclear exactly what students mean when they refer to 'theory', or whether there should be a relationship to 'practice'. When Holly is asked about the role of theory, she responds:

'Well I don't ... **I think it's just to get a basic understanding really.** I think it would be easier if like ... it's easier to learn, I feel, from a case study rather than ... I know you've got to know theories because that's what's the basis of everything isn't it. (Laugh) *Have you had any case studies much in the first two years?* Yes, we had a few. Yes, we had a few. Um, which were fine, um, but they always related back to a theory, so they sort of had to.' (Holly 2P: 571)

The distinction between theory and practice

The tone of discussion changed when some students talked about theory and practice. Robin positively values his experience of the 'outside world' and learning from experience.

'Um, I think it has. I would say it would have done, because going from ... throughout my whole life up to the age of ... how old was I then? Um, 20 ... 22 ... 21 where I was just constantly in education apart from my gap that I had in between, but you don't really learn how to apply things, um, experiences because all you've had is education. **So I think having a placement allowed me to experience the outside world and, I wouldn't say applied the theories which I've learnt, because I said it's a small organisation, it's difficult to apply them,** but just understanding how businesses work, um, how it's not, you know, as simple as sometimes lectures or books make it out to be, and that organisations work differently. Um...' (Robin 2F: 211)

Rachel, having found that she is 'not using what I did at university', talks about the positive aspects of 'seeing lots of bits we don't cover' (at university):

'We are doing some things that we've studied and you do think 'oh yes it is relevant now', but there are also, you know, seeing it first hand, especially in a trans-national company, **just seeing lots of bits we don't cover and, you know, the way they prefer, works... doesn't always work out** or, you know, whatever, which you don't get at university, you know, so by doing it first hand **you do get a good insight into it and see things that do work and don't work** and things like that.' (Rachel 2P: 496)

Rudy's tone is rather more strident and disappointed:

'Well there is definitely a big difference between theory and practices. We might have all these great models and things, but, you know, a lot of businesses don't go 'Why don't we just go through Maslow's hierarchy of needs, you know, certainly won't call it Maslow's, they are using an adaptation of it, it's given me a really good insight into how things are done, but **the theory and the practice there is definitely a difference between it. It's not like a ... businesses don't employ a strict way of doing things** ... like a strict model. They don't use any models that you would find in books very often, it's just sort of, you know ...' (Rudy 2P: 53)

He had expected a 'strict way of doing things'. This appears to be related to an absolute way of knowing. There is a sense of personal disappointment in that his expectations have been confounded. Rudy continues:

'They're good theories and to be honest they probably could improve businesses, but I suppose the level of control you'd have to have on your staff and employees is quite ... it forgets the human element of laziness, you know, and I mean as I said like from when ... if you do that ... whenever I'm doing business courses I always seem to be thinking about 'oh what's the optimum you could run this at? What's the most money you could make here? And what's ...', you know, it doesn't always seem to work exactly like that. I mean it is about that in the [*tape unclear*] sense, but how, you know, people ... costs and things, you know, it's not as strict and it's not ... you're not always working, you're not always, you know, **which is a bit different to what I thought it was going to be.**' (Rudy 2P: 57)

Tony also refers to the way in which his expectations about theories have not been met:

'Yes. Um, it's shown me a different side to business. It's shown me that my theories ... not my personal theories, but theories from university, sometimes don't necessarily work in, actually in the field, **they don't quite transfer quite correctly.**' (Tony 2P: 500)

Again, it is interesting to note Tony's use of terminology. It appears that he expected the theory to 'transfer correctly', and this also appears to be related to an absolute or transitional way of knowing. Consequently this has changed Tony's outlook:

'HR tells you sort of about the human resources department and sort of... it categorises the way people act at work and why people are at work. It looks at that, and **I feel that some of the theories aren't quite right.** I mean peoples' biggest motivational tool for an organisation, for the staff, is time off and that reallyit really boosts morale and stuff. Um, but I think for some people that isn't the case and people don't go to work to earn money, some people go to work for something to do because they don't necessarily need the money and I think that it's shown that some of the subjects, some of the ways, schools of thought, aren't quite right when actually applied to an organisation. **People don't react to certain things in one of the four groups or four main schools of thought that of HR ... um, marketing doesn't quite work as it does in the textbook.** If you target your segment audience and you aim for a 25% response or whatever, actually that doesn't particularly work. Some people are more prone to marketing than others and [*it*] doesn't ever appreciate the individual

psychology of different people, so, um, **it's changed my outlook on some subjects.**' (Tony 2P: 510)

Unfortunately, instead of leading to a questioning of the nature and role of theory and practice and further reflection, this causes him to be disillusioned about some aspects of his studies:

'It's made me **feel that some subjects are also irrelevant.** *Like?* Marketing ... I understand the importance to an organisation, but the depth at which they go into it here at university to show us all of the aspects which I feel are very important ... but some of it just doesn't transfer into the real world. Um, I don't feel that some of it is ... what organisations can actually use. It just isn't useful. I feel that some of it's just theories for theory's sake, based whatever actually being the working model.' (Tony 2P: 521)

Spencer voices similar concerns about theories that he has studied, but do not appear to relate to his experience:

'There were a **number of theories that I thought were a load of rubbish** to be honest, so, yes, no, you do get your own ... *So how do you decide then under those sort of smaller scale circumstances?* Um, I guess you ... I guess you decide from your own experience. I've worked for a number of different managers and a number of different professions and services and so you, you know, they've all got their own individual style and you can see ... you can marry a theory that you're learning at university to perhaps someone or something that you've experienced yourself. So, to be honest **I can't think off the top of my head anything to do with any of the theories that we've learnt, but, um, but there were certain ones where they just wouldn't work in real life.** They're theories, you know they're fine on paper, but you couldn't put them into practice.' (Spencer 1P: 392)

Spencer and Tony's comments suggest an absolute/transitional way of knowing, which appears to lead to a focus on the *difference* between theory and practice, rather than a reflection on the role of theory and its relationship to practice.

A changing view of business

Students were asked if they saw business differently as a result of their placement. From their responses it was apparent that most students now had a changed view of business, which could inform their final-year studies. Key aspects of their experience were as follows:

- business is now seen as a *process*
- changed perspectives of organisations (their goals and controls; their efficiency; and the roles of teams, departments and individuals within the organisation).

It was also found that although almost all students had previously undertaken part-time work, seeing aspects of business differently came as a surprise.

Business as a process

Students' responses overwhelmingly indicated that they now saw business as a process; however, students varied in the way that they related to this and differed in the emphasis placed on particular aspects of the process. For Emily, her perception of business as a system or process is relatively unformed:

'I don't know actually. I suppose I would in the sense that there's always ... that there has to be somebody doing each job to make the whole thing happen kind of thing which you never really think about, you always just think of a business don't you and that's it. *You don't think about the systems ... All the little things that go on inside it.*' (Emily 2P: 350).

This contrasts with Wayne, who clearly sees this as a major issue, experiencing frustration with the process and expressing his views quite fluently and forcefully:

'It's a very slow process. Um, it's unbelievable the amount of time that things take to be done. Not so much as in a task, but it's because ... I think because of the department where I work as well where contracts are agreed and things are negotiated, some people ... you can send them an email and you can wait a week for a response and things like that, it really frustrates me.' (Wayne 2P: 369)

'...it's such a big process almost. So many people and parts and teams are involved in all these negotiations and discussions. You can't do anything on your own. You have to work with people and they've all got different ideas and mindsets and I think that's part of the downfall almost ... not that everyone should act the same and think the same, but that's one of the most time consuming things ... agreeing on things, even internally, not externally, internally ... just to get everyone heading in the same direction and going for the same thing, it makes such a difference.' (Wayne 2P: 373)

This is probably expressed so fluently because it is a matter close to his own heart, because he would like to design his *own* processes:

'That's right actually and, you know, to be fair they do need the processes I suppose and ... because it would just be mayhem otherwise. [] But, at the same time, maybe it can be a little frustrating from a personal point of view. [] Obviously the size of the organisation, they've got to have something in place or there wouldn't be a structure, but from a personal perspective I'd like to design my own processes and decide what I want to do.' (Wayne 2P: 396)

Organisations – changing perceptions

John now sees organisations differently, but places his emphasis on *why* companies act as they do:

'Well I knew obviously that finance was important anyway as regards businesses, because, you know, profit is what they try and make, so I think now looking at it ... decisions that companies make ... whereas before without having a sort of background knowledge you think, 'Well why are they doing that?', but you can sort of ... well you know why, **you've got a good idea of why companies are doing it** like to cut overheads or to cut costs or, you know, why mergers take place, things like that. You can look at sort of more of the background rather than, you know, that's what's been

decided and you don't know anything about it. Um, so I think it's definitely made me look at businesses differently.'(John F2: 328)

Paul distinguishes between *business*, which he feels is understood well, and *organisations*, which he now sees as comprising teams of individuals:

'I think I see large corporations differently now, um, because I see, you know, especially in this one just, you know, how many thousands of people are involved in getting one of these organisations running every single day. **So I see large organisations very differently now, um, they are just, you know, instead of thousands of individuals they really are hundreds of teams doing different things and each one very much as important as the other one for keeping things going**, but I don't think I see business as such very differently because I've grown up with it.' (Paul 2P: 55)

This may be why Paul then goes on to reflect about organisational goals, the way in which projects are organised, and where decisions are taken by ordinary people:

'Well I've been impressed with, um, people like project managers and things like that ... not something you particularly know much about when you're at university, but I've been impressed by sort of like the way projects are organised and things. All the consideration that goes into things. [] And so, you know, and **major decisions come down to just an individual**, so I think that's something that's really struck me actually, because you suddenly realise that, you know, you're talking about just ordinary people ... obviously they've got abilities and skills and knowledge, but they're running these huge, you know, multi-million pound empires, so I think that's something that's shocked me, that sometimes actually I get there and think 'gosh this isn't quite so big as I thought', **it really is just a whole bunch of people working as a team trying to achieve a goal.**' (Paul 2P: 175)

Once it is realised that it is down to individuals to take decisions, this then raises the issue of their expertise. Here Paul finds himself surprised and starts to question his own assumptions about expertise:

'And actually, you know, you start to see that not everybody knows what they're talking about, he knows what he's talking about in this area, she knows what she's talking ... and you see the fact that, you know, on the outside you see a mass of knowledge and information in an organisation, but when you get inside it's bits of different people kind of coming across [] **I'm probably struck a little bit by just how it's not what I thought it would be in terms of, you know, the people and stuff.**' (Paul 2P: 180)

Similarly Rudy finds that his assumption that a company would be efficient is challenged by the very large global organisation that he works for:

'I think, you know, I had perceptions of what it would be like to work for a company like this, where **I thought I'd probably be working constantly all the time, constantly doing things, but it's not been like that.** It sort of comes in bits and bobs. I think I need to like get used to that and be a bit more patient probably and waiting for what ... knowing what I need to do and waiting for people's time rather than ... so it's been my expectations of what work's about ... corporate work is about is quite different from what the reality is.' (Rudy 2P: 21)

Tony now realises the importance of procedures and processes in *controlling* a business and comments on the importance of getting things right first time:

'I mean with both the organisations that I've worked for and continue to work for there's always a perpetual amount of work, so no matter how much you get done there's always going to be more and I appreciate that fact and I understand that people have limitations in how much they can do in a day, how much they can undertake and that every now and again you will find that when putting [*goods*] back someone may put it back in slightly the wrong place. Um, I can appreciate that that might happen just by pure error, but I mean I organise 15,000 items by their barcode order and I feel that if I don't do it right first time it's going to take me another two weeks to re-do it and that's a waste of two weeks that I could be doing better things with and **it's given me the perspective while working at [*my placement*].**' (Tony 2P: 508)

Similarly, Joe has found that other people do not always understand the importance of controls within systems:

'But, yes ... but controls within systems you realise how important they are almost because (laugh) ... add a zero I mean it's a big difference to ... But it's quite tight, there's not much margin for error.' (Joe 2P: 237)

Part-time work experience

As most of the students had undertaken part-time work in the past, the question arises whether any of the aspects referred to above should have taken them by surprise. However, it appears that students do not necessarily engage in part-time work in the same way that they engage in placement. Rachel tends to have an open, questioning attitude towards her placement and now realises that she did not apply that to her part-time work:

'I don't think I had, you know, it was always like the little group, you know, when I had my Saturday job all I saw was our branch. I didn't think of the overall company and, you know, when the company was having problems and things, I didn't think 'oh we're affected ... we're part of it', you know, you just assume 'our branch is alright, what's the problem? There's nobody like that', **whereas now you think of, you know, the other departments and the other groups and think of the overall picture.**' (Rachel 2P: 522)

For Emily, because the part-time work is not related to her future career, she has a different attitude towards it.

'Oh definitely, yes. I mean with a part-time job you never think of it as anything you consider doing in the future, **it's just something to get some money isn't it really.** [] So I suppose my attitude is different in that sense.' (Emily 2P: 961)

Similarly for Joe:

'Um, I worked in [*a retail store*] for a while before in the audit department there, so I had a brief ... I had, um, some knowledge of, you know, systems and how things work and how things have to be processed and what have you, but, um, **it's only with [*my placement company*] that I've realised the immense scale** of (laugh) how much numbers need to be processed and how important every digit is (laugh) and, um, yes.' (Joe 2P: 390)

7.3 Conclusions

This chapter has discussed findings in relation to the improvement in academic performance of students who have undertaken a placement. The theme of a more focused application towards learning was the strongest to emerge from the interviews. This arises from a developing sense of self, but cannot be seen in isolation. It is clearly connected with the findings discussed in Chapters 5 and 6: the strong motivation that students have to do well in their final year, and their increased confidence arising, in part, from interpersonal development, but also from a growing sense of efficacy. Thus it is highly likely that this contributes to an improvement in academic performance in the final year.

However, it appears that the placement provides a range of experience that might be integrated with prior learning and lead to cognitive development, but this potential is realised in only a limited number of ways. In view of the stated objectives of the QAA subject benchmark statements and the objectives of the university's placement programme, this is an issue which needs to be addressed. It was difficult to identify the extent to which prior university studies informed experience in placement, as the students experienced difficulty in recalling their prior studies. Students found that they could recognise aspects of their studies and could use these to 'name' practice encountered in their placements and they could discuss these in a limited way. They did also refer to theory, again in a limited way. However, their references to theory and practice indicate more of a disillusion or dismissal rather than an inclination to question the relationship between them. A slightly stronger theme was that some students felt that after their placement, they could now place their final-year studies in context. However, again only a few students referred to this.

It was apparent from the interviews that the majority of the students interviewed made significant achievements during their placement. They regarded it as a valuable experience that prepared them well for their final-year studies through a focused application. If it is assumed that these students should be well able to enquire critically into the relationship between theory and practice – a central element in coming to develop a reflective capacity – then it appears that this is a potential that remains to be realised. This issue will be discussed further in Chapter 8.

The value of the findings from this project arise from the overall picture that they provide of the student experience of work-based placement learning and its relationship to the development of a reflective capacity. The interviews tapped into students' *professed beliefs* about knowledge. A key finding was that students found it difficult to recall and talk about their prior studies. However, such a finding also indicates that further research is required. Such research would best be conducted so as to tap into students' *enacted beliefs*. This would involve the use of think-aloud protocols and retrospective interviewing to identify the nature of how students think about knowledge as they work on a task (Hofer, 2004b). Or it could involve a 'hot review' (Louca *et al.*, 2004) to analyse class interaction. This task- and context-related approach is essential, as an assumption underlying ways of knowing is that they can vary between subjects and even within subject-specialisms.

8 Supporting the development of a reflective capacity: further research and a pedagogic framework

8.1 Introduction

This project comprised an investigation into the development of a reflective capacity within undergraduate business and accounting education. In particular it focused on the role of placement learning in the development of that capacity. Findings from Strand 1 of the project support prior research studies that suggest students who undertake placement appear to achieve a better level of academic performance in the final year than those who do not. If it is assumed that the Critical Reflection scale of the QRT provides an adequate measure for critical reflection, it would appear that this better level of performance is not due to a developing level of critical reflection (Section 3.4).

Findings from Strand 2 indicate that an improvement in final-year performance may not be due to cognitive development in the sense of changing beliefs about knowledge. Rather, it appears that improved academic performance arises from a developing sense of self (through interpersonal and intrapersonal development) that leads to a more focused application towards learning. It was found that placement provides a range of experience that might be integrated with prior learning and lead to cognitive development, but that this potential is realised only in a limited number of ways.

These findings arise from a particular context, and this places a limitation on the extent to which they might be transferred to other contexts. However, the context described is not untypical of many business and accounting degree programmes, and it is considered that many educators across a range of disciplines may recognise these central themes within their own teaching experience.

These findings have implications for both future research and for pedagogy within the undergraduate and pre-professional curriculum¹⁷. These will be discussed below.

8.2 Implications for future research

The value of the findings from this project arise from the overall picture that they provide of the student experience of work-based placement learning and its relationship to the development of a reflective capacity. However, having established major themes within the student experience, this then provides a framework for the identification of finer-grained research required in the areas of motivation and cognitive development. Curriculum development would benefit from further research in the three areas outlined below.

Motivation

¹⁷ Curriculum is used in its widest sense as covering the entirety of a degree programme, individual years and modules. It also embraces all aspects of pedagogy, learning resources and learning activities.

As discussed in Chapter 5, motivation plays a key role in how students view their learning environment. Yet the motivation of university students has not been extensively researched. As a consequence relatively little is known about what motivates students and the nature of motivation itself. Jacobs and Newstead (2000) identified two quite different orientations, with some students being motivated more by subject-related activities and others by generic activities (skills and experiences). Our findings confirm that such a distinction may be particularly pertinent for business and accounting students. Descriptions of motivation provided in Chapter 5 may serve their purpose when taking the holistic view required by this project. However, they do not do justice to the complexity of individual motivations (Valle *et al.*, 2003; Dörnyei, 2000) that were apparent for the participants in this project. This is clearly an area where further research is needed into the *nature* of student motivation within business and accounting.

Cognitive development within ways of knowing

The interviews conducted within Strand 2 tapped into students' *professed beliefs* about knowledge. A central finding was that students found it difficult to recall and talk about their prior studies. Thus it cannot necessarily be assumed that such professed beliefs will be *enacted* when a student engages in a learning task within a particular subject area. Further research is required into *enacted beliefs*. This would involve the use of think-aloud protocols and retrospective interviewing to identify the nature of how students think about knowledge as they work on a task (Hofer, 2004b). Or it could involve a 'hot review' (Louca *et al.*, 2004) to analyse class interaction. This task- and context-related approach is essential, as an assumption underlying ways of knowing is that they can be context-sensitive.

Understandings of 'theory' and 'practice'

As discussed in Chapter 7, stated QAA and university objectives regarding the role of placement in supporting the integration of theory and practice were not generally achieved. The business and accounting area involves study of a number of different, but related, subject areas. These subjects will vary in the type of theory that underpins their conceptual foundations. Thus it is important that students are able to understand the nature of this variation and the role of theory within a particular subject. This is demanding for students. Further interview-based research is required into meanings that educators and students attach to the terms 'theory' and 'practice'.

8.3 Implications for pedagogy

In this section of the report, the findings are drawn together to set out a proposed pedagogic framework. It is hoped this will form the basis for further discussion within the academic and professional community about the issues raised within our findings. It is important to realise that educators, as well as students, may benefit from a questioning of their assumptions and beliefs. For example, it is well-accepted that educators, themselves, conduct their teaching on the basis of professed and enacted beliefs (Kember, 1997; Entwistle and Gregory, 2000; Lucas, 2002). Educators, as well as students, may regard learning as involving the accumulation and memorisation of

facts. Consequently, for some educators, the idea of ways of knowing and the interaction of cognitive, inter- and intra-personal development may challenge their own ideas about the role of teaching.

As discussed in Chapter 5, Boud and Walker (1998) highlight a range of issues from misconceptions about the nature of reflection to strategies that seek inappropriate levels of personal disclosure. One particularly common problem is that students and educators may be involved in 'recipe following', where 'elements of modes of reflection are turned into checklists which students work through in a mechanical fashion without regard to their own uncertainties, questions or meanings' (Boud and Walker, 1998, p.192). As Boud and Walker point out the danger with such checklists is that they lead to a false expectation of what reflection is ('linear, about external knowledge and unproblematic'). Of course, an absolute way of knowing would predispose a student to seeing a checklist in this fashion, and the existence of the checklist would confirm an absolute view. Educators vary, too, in the way in which they regard the notion and role of 'reflection'. Thus it is important that there is a clear pedagogic framework supporting the development of a reflective capacity. This should not be an imposed framework since the framework itself can be the focus of enquiry. Accordingly, we wish to obtain feedback on how best to develop and explain the pedagogic framework discussed below.

A proposed pedagogic framework to support the development of a reflective capacity

Placement appears to offer a rich developmental and learning environment for students. Placements clearly vary in the extent to which they support students and the range of challenge available to students. However, even those students whose experience was disappointing felt that the placement had been a learning experience. Accordingly, in discussing pedagogy, two questions are posed:

- how can the benefits that arise from placement be made available to non-placement students?
- how can the placement experience be improved to support students' cognitive development in the sense of changing beliefs about the nature and source of knowledge?

A pedagogic framework is proposed that rests on the following three principles:

1. *The student takes central responsibility for their own learning*

The benefit of placement appears to arise from the provision of a context in which students have to take responsibility for their own learning and performance. Students cannot avoid taking this responsibility as they feel accountable to their employer and colleagues. They are also motivated by the fact that such experience will improve their employability. This sense of responsibility contrasts with what appears to be a relative detachment from their university learning. Their learning in the first and second years is not readily recalled and does not count substantially towards their final degree classification. While recognising that university cannot readily mimic a placement, a

central issue within a pedagogic framework might be how the university can best support students in taking responsibility for their own learning.

2. *Learning involves an enquiry into a) the nature and role of knowledge within business and accounting and b) the nature of reflective practice*

The placement experience does not appear to support cognitive development. As discussed in Chapter 5, this may be due to several factors. First, students tend to focus on achieving a qualification and do not express any substantial intrinsic interest in business-related subjects. Second, students find it difficult to recall much of their first and second-year studies; hence this is not readily available for interrogation and reflection during their placement experience. Third, students did not readily *reflect* on their experience generally. Finally, it may be that placement, as an environment, does not provide the necessary challenges to beliefs about knowledge. It was found that students do not have to take significant independent decisions or exercise significant individual judgment – situations that are thought to foster cognitive development through the challenging of existing beliefs.

The university regards itself as an environment within which cognitive development can and should take place. As was discussed in Chapter 7, the QAA subject benchmark statements for General business and management states that the placement is a means of supporting the ‘integration of theory and practice’. This was translated into the following objective for the placement year within the university programme within this project: ‘to allow students to reflect on and apply theoretical knowledge gained from their award’. These two objectives differ in wording and, possibly, intent. What underpins these two objectives are assumptions that theory and practice are of such a nature that they can be ‘integrated’, or that theoretical knowledge can be ‘applied’. However, such assumptions can be questioned. Therefore, it is proposed that a further central issue within a pedagogic framework would be an enquiry into the nature and role of knowledge within business and accounting. This will involve an enquiry into theory, its relationship with practice and judgment, and the role of ‘evidence’. Such an enquiry will also involve an enquiry into the nature and role of *reflection* and *reflective practice*.

3. *Learning involves an enquiry into practice: that of the student and of others*

An enquiry into the nature and role of knowledge will involve a major source of knowledge: that of experience derived from practice. Two forms of practice are central:

- that of the student – educational and concurrent practice (part-time and voluntary work)
- that of others – lecturers and peers within education, and colleagues and managers within placement.

This framework is set out in Figure 4.

An explanation of, and justification for, the pedagogic framework

First the framework is described. Central responsibility is taken by students to reflect on their own learning and practice. Two forms of practice are the subject of focus: that of the student (educational and concurrent) and that of others. Educational practice embraces the role of the student at university. Concurrent practice may be any other practice that the student is involved with; three have been identified here: part-time work, placement and voluntary activity. The latter might also include sports and social activities. The practice of others embraces university and other contexts. At university it might be the practice of lecturers, fellow-students and learning support educators. Within Figure 4 the practice of the student has been separated from the practice of others. However, this framework would also involve a reflection upon participation within communities of practice (Lave and Wenger, 1991).

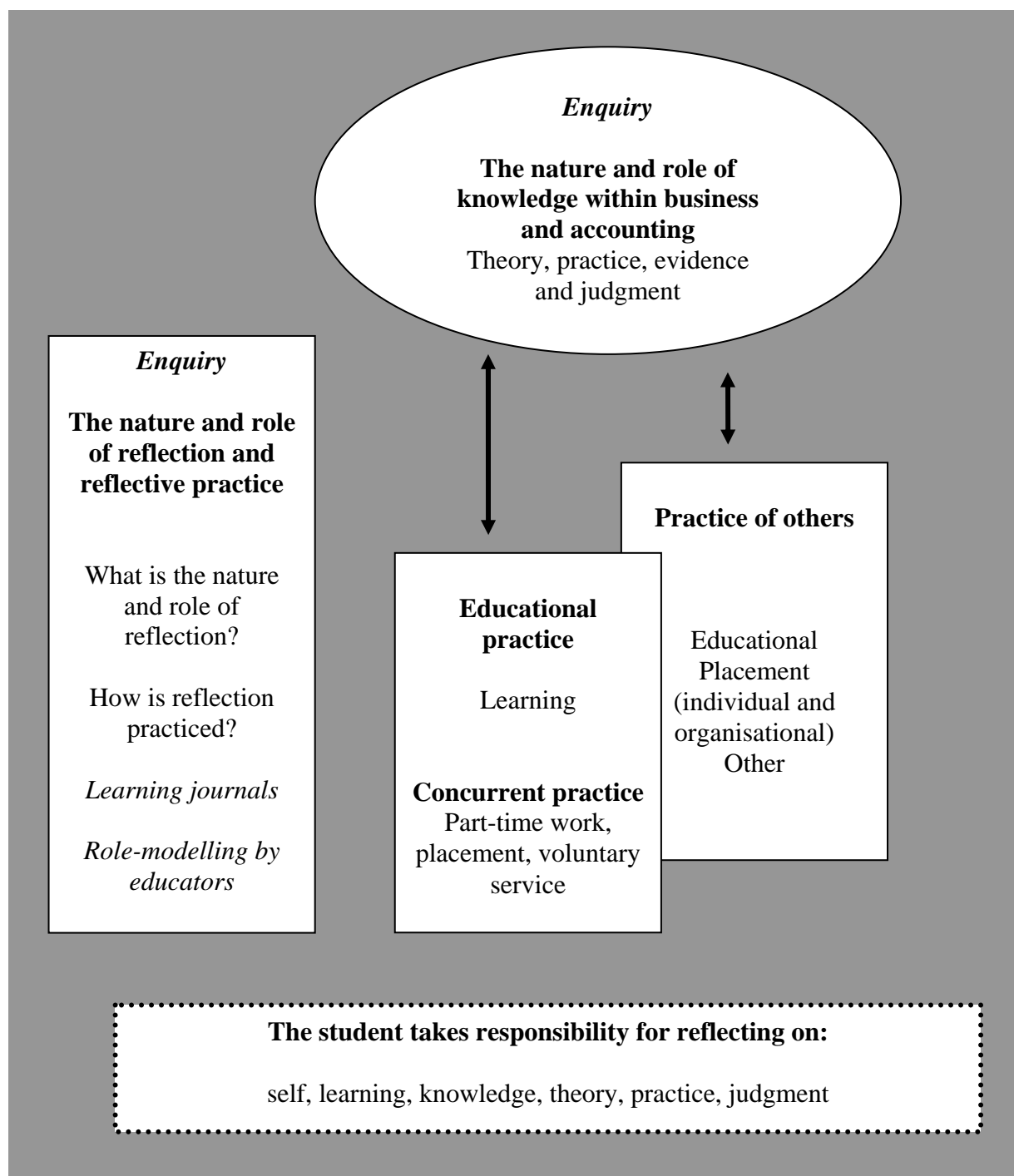


Figure 4: A proposed pedagogic framework to support the development of a reflective capacity

The prime foci of enquiry are the role and nature of knowledge within business and accounting, and the role and nature of reflection and reflective practice. The student's reflective practice may be supported in many ways including the use of learning journals, role-modelling by educators and 'hot' task-related reflection. This enquiry would be explicit and embedded within all subjects.

Second, complementary literature is drawn on to support the framework. In particular, the work-based learning literature. Clegg and Bradley (2006), in their work on models of personal development planning (PDP), analysed models of practice in relation to PDP. Three ideal types of PDP were identified: professional, employment and academic. The employment model was found in courses that did not necessarily lead to professional careers, such as business studies. Accounting leads (for some students) to a professional career. However, Clegg and Bradley use the term to describe professions within which reflective practices are well-embedded such as nursing, medicine and teaching. Within this employment model there is an emphasis on the development of generic, transferable skills that lead to employment. Reflection is not the main feature of this model although there is a requirement for reflection on learning in its broadest sense. Clegg and Bradley (2006, p.69) observe the implications of this emphasis:

'the sorts of PDP produced in these contexts reflect their general reading of the market, not in the sense of a particular professional set of values, but through a more focused concentration on employability. The language used to describe PDP in this context is much more utilitarian, and staff in these areas feel they face greater difficulties in convincing students of its value. Rather than a shared set of well-understood principles based on the shared value of reflection in PDP, as in the professional model, the employment model throws up a series of dilemmas for the staff in motivating students to participate, as the rewards are perceived by staff to be extrinsic rather than central to disciplinary values.'

Our desire to obtain feedback on the proposed pedagogic framework arises, in part, from a recognition that the business and accounting area, with its disparate subjects, lacks this 'shared set of well-understood principles'. This has been identified by the work of MacFarlane (1997;1998).

Clegg and Bradley (2006) go on to observe that there was little evidence that staff related to a broader literature, notably, the work of Eraut (2000) on non-formal learning or the work on connectivity (Guile and Griffiths, 2001). This literature, they point out, provides a basis for the theorisation of reflection in work-related contexts.

Guile and Griffiths (2001) argue that new curriculum frameworks are needed to allow work in all of its forms to be used as a basis for the development of knowledge, skills and identity. They propose a typology of models of work experience within which they argue that a 'connective' model will provide the basis for a productive relationship between formal and non-formal learning. The connective model aims to achieve both

vertical and horizontal development. Vertical development refers to the progression of learning through the degree programme. Horizontal development refers to the ability to identify relationships between work experience, its underlying knowledge and skills, and its context (cultural, social and technological). Guile and Griffiths emphasise the role of work experience within horizontal development. However, in business and accounting, horizontal development should also involve the overcoming of a subject silo approach through an emphasis on connectivity between different business-related subjects.

A focus on *enquiry* within this area will thus expose the differing assumptions about the role and nature of knowledge in each subject area, and provide conditions for connectivity to be addressed. The inclusion of judgment within this enquiry arises from the relationship of judgment within practice. As discussed in Chapter 2, critical reflection expects individuals not only to think critically, but to move towards critical *being*, which will ultimately involve action (Barnett, 1997, p.1).

Their connective model is based on a 'reflexive' theory of learning. This involves the student in a critical reflection upon the nature of work, its context and varying forms of learning. However, we would prefer to move away from an emphasis on *work* towards an emphasis on *practice*. Practice is all-encompassing and provides a term to cover action (including work) within all contexts. As we have seen students may not necessarily conceive of their part-time jobs as 'work'. This emphasis on 'practice' will also support a focus on the relationship between theory and practice.

The idea that students should engage in a reflection on their own practice is not a particularly new idea within higher education. In recent years this aim has been supported by a growing range of theoretical and practical support (Moon, 1999; 2004). However, supporting the development of a reflective capacity is not straightforward and, as discussed above, it is easy for the best of intentions to be thwarted (Boud and Walker, 1998). Hence the proposed framework develops the 'reflexive' theory of learning to address the nature of reflective practice itself.

Another pedagogic framework?

Within business education there has been much debate about the role of undergraduate education. This has tended to focus on the issue of whether it should comprise a study *of* business or a study *for* business (Tolley, 1983, p.5). It is apparent from the QAA benchmark statements that business and accounting education is seen by the QAA to incorporate both of these aspects. A study *for* business recognises that there is a vocational aspect to education. Students should be adequately prepared for employment in business. A study *about* business recognises that education can fulfill a wider role, that of allowing students to study the role of business in society, incorporating sociological, legal, economic or ethical aspects.

It is proposed that a pedagogic framework to support the development of a reflective capacity incorporates both of these aims. These two aims are not regarded as either competing or complementary. Rather they are reframed to sit within an aim that students can be supported in learning how to practice effectively within business. Of course, the notion of *effectiveness* raises issues of values and norms, and we would expect that notion, itself, to be the subject of enquiry.

References

- Ashworth, P. & Lucas, U. (2000) Achieving Empathy and Engagement: a practical approach to the design, conduct and reporting of phenomenographic research. *Studies in Higher Education*. 25(3), 295-308.
- Barnett, R. (1997) *Higher Education: A Critical Business*. Buckingham: Open University Press and Society for Research in Higher Education.
- Bauer, J., Festner, D., Gruber, H., Harteis, C. & Heid, H. (2004) The effects of epistemological beliefs on workplace learning. *The Journal of Workplace Learning*. 16(5), 284-92.
- Baxter Magolda, M.B. (1992) *Knowing and Reasoning in College: gender related patterns in students' intellectual development*. San Francisco: Jossey-Bass.
- Baxter Magolda, M.B. (1998) Learning and gender: Complexity and possibility. *Higher Education*. 35, 351-55.
- Belenky, M., Clinchy, B., Goldberger, N. & Tarule, J. (1986) *Women's Ways of Knowing: The Development of the Self*. New York: Basic Books.
- Bendixen, L.D. & Rule, D.C. (2004) An Integrative Approach to Personal Epistemology: A Guiding Model. *Educational Psychologist*. 39(1), 69-80.
- Biggs, J.B., Kember, D. & Leung, D.Y.P. (2001) The revised two-factor Study Process Questionnaire: R-SPQ-2F. *British Journal of Educational Psychology*. 71.
- Bloom, B.S. (1956) *A Taxonomy of Educational Objectives Handbook 1: Cognitive Domain*. New York: Longmans.
- Brookfield, S.D. (1987) *Developing Critical Thinkers*. Milton Keynes: Open University Press.
- Boud, D. & Walker, D. (1993) Barriers to Reflection on Experience. In Boud, D., Cohen, R. & Walker D. (eds.), *Using Experience for Learning* (pp. 73-87).
- Boud, D. & Walker, D. (1998) Promoting reflection in professional courses: the challenge of context. *Studies in Higher Education*. 23(2), 191-206.
- Boud, D., Cohen, R. & Walker, D. (1993) Introduction. In Boud, D., Cohen, R. & Walker, D. (eds.), *Using Experience for Learning* (pp. 1-18). Buckingham: Open University Press and Society for Research in Higher Education.
- Bourner, T. & Ellerker, M. (1993a) Sandwich placements: improving the learning experience - part 1. *Education + Training*. 35(7), 3-7.
- Bourner, T. & Ellerker, M. (1993b) Sandwich placements: improving the learning experience - part 2. *Education + Training*. 35(7), 10-17.
- Bowes, L. & Harvey, L. (2000) *The Impact of Sandwich Education on the Activities of Graduates Six Months' Post-graduation*. London: National Centre for Work Experience and the Centre for Research into Quality.
- Clegg, S. & Bradley, S. (2006) Models of Personal Development Planning: practice and processes. *British Educational Research Journal*. 32(1), 57-76.
- Clouder, L. (1998) Getting the 'Right Answers': student evaluation as a reflection of intellectual development? *Teaching in Higher Education*. 3(2), 185-95.
- Dewey, J. (1933) *How we think: a restatement of the relation of reflective thinking to the educative process*. Boston: D.C.Heath.
- Dörnyei, Z. (2000) Motivation in action: Towards a process-oriented conceptualisation of student motivation. *British Journal of Educational Psychology*. 70, 519-38.
- Duignan, J. (2003) Placement and adding value to the academic performance of undergraduates: reconfiguring the architecture - an empirical investigation. *Journal of Vocational Education and Training*. 55(3), 335-50.

- Dweck, C. (1999) *Self-theories: Their role in Motivation, Personality and Development*. Philadelphia, PA: Psychology Press.
- Entwistle, N.J. & Gregory, K.J. (2000) *Conceptions of teaching for academic staff development*. London: Goldsmiths College, University of London.
- Eraut, M. (2000) Non-formal Learning and tacit Knowledge in Professional Work. *British Journal of Educational Psychology*. 70.
- Gomez, S.L., Lush, D. & Clements, M. (2004) Work Placements Enhance the Academic Performance of Bioscience Undergraduates. *Journal of Vocational Education & Training*. 56(3), 373-85.
- Guile, D. & Griffiths, T. (2001) Learning Through Work Experience. *Journal of Education and Work*. 14(1), 113-31.
- Harvey, L.M., Moon, S. & Geall, V. (1997) *Graduates' Work: organisation change and students' attributes*. Birmingham: Centre for Research into Quality and the Association of Graduate Recruiters.
- Hofer, B.K. (2004a) Introduction: Paradigmatic Approaches to Personal Epistemology. *Educational Psychologist*. 39(1), 1-4.
- Hofer, B.K. (2004b) Epistemological Understanding as a Metacognitive Process: Thinking Aloud during Online Searching. *Educational Psychologist*. 39(1), 43-56.
- Jacobs, P.A. & Newstead, S.E. (2000). The nature and development of student motivation. *British Journal of Educational Psychology*. 70, 243-54.
- Kegan, R. (1994) *In Over Our Heads: The Mental Demands of Modern Life*. Cambridge, Mass.: Harvard University Press.
- Kember, D. (1997) A reconceptualisation of the research into university academics' conceptions of teaching. *Learning and Instruction*. 7(3).
- Kember, D., Leung, D., Jones, A. & Loke, A.Y. (2000) Development of a Questionnaire to measure the Level of Reflective Thinking. *Assessment and Evaluation in Higher Education*. 25(4), 380-95.
- King, P.M. & Kitchener, K.S. (2004) Reflective Judgment: Theory and Research on the Development of Epistemic Assumptions Through Adulthood. *Educational Psychologist*. 39(1), 5-18.
- Kitchener, K.S. (1983) Cognition, metacognition and epistemic cognition. *Human Development*. 26, 222-32.
- Lave, J. & Wenger, E. (1991) *Situated Learning: Legitimate Peripheral Participation*. Cambridge: Cambridge University Press.
- Leung, D.Y.P. & Kember, D. (2003) The relationship between approaches to learning and reflection upon practice. *Educational Psychology*. 23(1).
- Lincoln, Y.S. & Guba, E.G. (1985) *Naturalistic inquiry*. Beverly Hills, CA.: Sage.
- Little, B. & Harvey, L. (2006) *Learning Through Work Placements and Beyond*. Sheffield: Centre for Research and Evaluation, Sheffield Hallam University and Centre for Higher Education Research and Information, Open University.
- Louca, L., Elby, A., Hammer, D. & Kagey, T. (2004) Epistemological Resources: Applying a New Epistemological Framework to Science Instruction. *Educational Psychologist*. 39(1), 57-68.
- Lucas, U. (2002) Uncertainties and contradictions: lecturers' conceptions of teaching introductory accounting. *British Accounting Review*. 34(3), 183-204.
- Lucas, U. & Meyer, J.H.F. (2005) 'Towards a mapping of the student world': the identification of variation in students' conceptions of, and motivations to learn, accounting. *The British Accounting Review*. 37(2), 177-204.

- Lucas, U. and Tan, P (2006a) 'Developing a reflective capacity: the role of personal epistemologies within undergraduate education'. Paper presented to support a Research Seminar at the 14th Improving Student Learning Symposium, University of Bath, 4-6 September 2006.
- Lucas, U. and Tan, P. (2006b) 'Assessing levels of reflective thinking: the evaluation of an instrument for use within accounting and business education'. Paper presented to the 1st Pedagogic Research in Higher Education Conference, Liverpool Hope University, Liverpool, 2-3 May 2006.
- Macfarlane, B. (1997) In search of an identity: lecturer perceptions of the Business Studies first degree. *Journal of Vocational Education and Training*. 49(1).
- Macfarlane, B. (1998) Refugees, nomads and tourists: an anatomy of business and management lecturers in higher education. *Journal of European Business Education*. 7(2).
- Mandilaras, A. (2004) Industrial Placement and Degree Performance: evidence from a British Higher Institution. *International Review of Economics Education*. 3(1), 39-51.
- Marton, F., Dall'Alba, G. & Beaty, E. (1993) Conceptions of learning. *International Journal of Educational Research*. 19(3), 277-300.
- Mason, G., Williams, G., Cranton, P. & Guile, D. (2003) *How much does higher education enhance the employability of graduates?* London: HEFCE.
- Mezirow, J. (1985) A critical theory of self-directed learning. In Brookfield, S. (ed.), *Self-Directed Learning: from theory to practice* (pp.17-30). San Francisco: Jossey-Bass.
- Mezirow, J. (1990) *Fostering critical reflection in adulthood*. San Francisco: Josey-Bass.
- Mezirow, J. (1991) *Transformative dimensions of adult learning*. San Francisco: Josey-Bass.
- Mezirow, J. (1992) Transformation theory: Critique and confusion. *Adult Education Quarterly*. 42, 250-52.
- Moon, J. (1999) *Reflection in learning and professional development: theory and practice*. London: Kogan Page.
- Moon, J. (2004) *A Handbook of Reflective and Experiential Learning*. London: Routledge Falmer.
- Moseley, D., Baumfield, V., Higgins, S., Lin, M., Miller, J., Newton, D., Robson, S., Elliott, J. & Gregson, M. (2004) *Thinking skill frameworks for post-16 learners: an evaluation*. A research report for the Learning and Skills Research Centre.
- Nunnally, J.C. (1978) *Psychometric Theory*. London: McGraw Hill.
- Perry, W.G. (1970) *Forms of Intellectual and Ethical Development in the College Years*. New York: Holt, Rinehart and Wilson.
- Perry, W.G. (1981) Cognitive and ethical growth: the making of meaning. In Chickering, A.W. (ed.), *The Modern American College: Responding to the New Realities of Diverse Students and a Changing Society*. San Francisco: Jossey-Bass.
- Prosser, M. & Trigwell, K. (1999) *Understanding learning and teaching: the experience in higher education*. Buckingham: The Society for Research into Higher Education and Open University Press.
- QAA (Quality Assurance Agency for Higher Education) (2000) General and Business Management: subject benchmark statement.

- QAA (Quality Assurance Agency for Higher Education) (2001) Code of Practice for the Assurance of Academic Quality and Standards in Higher Education: Section 9 Placement Learning.
- QAA (Quality Assurance Agency for Higher Education) (2007) General and Business Management: subject benchmark statement.
- Rawlings, P., White, P. & Stephens, R. (2005) Practice-Based Learning in Information Systems: the Advantages for Students. *Journal of Information Systems Education*. 16(4), 455-63.
- Savin-Baden, M. (2000) *Problem-based learning in higher education: untold stories*. Buckingham: Open University Press.
- Schön, D. (1983) *The Reflective Practitioner*. London: Temple Smith.
- Schön, D. (1987) *Educating the Reflective Practitioner*. San Francisco: Jossey Bass.
- SurrIDGE, I. (2007) Determinants of performance on an accounting and finance degree. Paper to be presented at the British Accounting Association Accounting Education Special Interest Group Conference, May 2007.
- Tait, H., Entwistle, N.J. & McCune, V. (1998) ASSIST: a reconceptualisation of the approaches to studying inventory. In Rust, C. (ed.) *Improving Student Learning: improving student learning outcomes*. Oxford: Oxford Centre for Staff Development.
- Tolley, G. & Graves, D. (1983) Foreword. In Graves, D. (ed.) *The Hidden Curriculum in Business Studies: Proceedings of a conference on values in business education*. Chichester: Higher Education Foundation.
- Tolhurst, D. (2007) The influence of learning environments on students' epistemological beliefs and learning outcomes. *Teaching in Higher Education*. 12(2), 219-33.
- Trowler, P. & Cooper, A. (2002) Teaching and Learning Regimes: implicit theories and recurrent practices in the enhancement of teaching and learning through educational development programmes. *Higher Education Research and Development*. 21(3).
- Valle, A., Cabanach, R.G., Nunez, J.C., Gonzelez-Pienda, J., Rodriguez, S. & Pineiro, I. (2003) Multiple goals, motivation and academic learning. *British Journal of Educational Psychology*. 73, 71-87.
- Walmsley, A., Thomas, R. & Jameson, S. (2006) Surprise and sense making: undergraduate placement experiences in SMEs. *Education + Training*. 48(5), 360-72.
- Wengraf, T. (2001) *Qualitative Research Interviewing: Biographic, Narrative and Semi-structured Methods*. London: Sage.
- Zhang, L.I. & Watkins, D. (2001) Cognitive development and student approaches to learning: An investigation of Perry's theory with Chinese and U.S. university students. *Higher Education*. 41, 239-61.

Appendix 1 – The Questionnaire for Reflective Thinking

Guidance on completing this questionnaire¹⁸

This is NOT a test. There are no 'right' or 'wrong' responses to the statements that follow. A response is only 'right' if it reflects your *personal* reaction, and the *strength* of your reaction, as accurately as possible.

Please circle the appropriate letter to indicate the level of your agreement with statements about your actions and thinking in this course so far i.e. years 1 and 2 or in your previous studies if you are a direct entrant.

- A - definitely agree
- B - agree only with reservation
- C - only to be used if a definite answer is not possible
- D - disagree with reservation
- E - definitely disagree

NOW please read through the statements and respond quickly.

1 When I am working on some activities, I can do them without thinking about what I am doing	A	B	C	D	E
2 This course requires us to understand concepts taught by the lecturer	A	B	C	D	E
3 I sometimes question the way others do something and try to think of a better way	A	B	C	D	E
4 As a result of this course I have changed the way I look at myself	A	B	C	D	E
5 In this course we do things so many times that I started to do them without thinking about it	A	B	C	D	E
6 To pass this course you need to understand the content	A	B	C	D	E
7 I like to think over what I have been doing and consider alternative ways of doing it	A	B	C	D	E
8 This course has challenged some of my firmly held ideas	A	B	C	D	E
9 As long as I can remember handout material for examinations, I do not have to think too much	A	B	C	D	E
10 I need to understand the material taught by the lecturer in order to perform practical tasks	A	B	C	D	E
11 I often reflect on my actions to see whether I could have improved on what I did	A	B	C	D	E
12 As a result of this course I have changed my normal way of doing things	A	B	C	D	E
13 If I follow what the lecturer says, I do not have to think too much on this course	A	B	C	D	E
14 In this course you have to continually think about the material you are being taught	A	B	C	D	E
15 I often re-appraise my experience so I can learn from it and improve my next performance	A	B	C	D	E
16 During this course I discovered faults in what I had previously believed to be right	A	B	C	D	E

¹⁸ © 2000 David Kember, Doris Y P Leung, Alice Jones, Alice Yuen Loke, Jan McKay, Kit Sinclair, Harrison Tse, Celia Webb, Frances Kam Yuet Wong, Marian Wong and Ella Yeung. Source of questionnaire: Kember *et al.* (2000) 'Development of a questionnaire to measure the level of reflective thinking', *Assessment & Evaluation in Higher Education*, 25(A), pp. 381-395.

Appendix 2 – The wording of statements within each scale

Statement	Scale
	Habitual Action (HA)
1	When I am working on some activities, I can do them without thinking about what I am doing
5	In this course we do things so many times that I started to do them without thinking about it
9	As long as I can remember handout material for examinations, I do not have to think too much
13	If I follow what the lecturer says, I do not have to think too much on this course
	Understanding (U)
2	This course requires us to understand concepts taught by the lecturer
6	To pass this course you need to understand the content
10	I need to understand the material taught by the lecturer in order to perform practical tasks
14	In this course you have to continually think about the material you are being taught
	Reflection (R)
3	I sometimes question the way others do something and try to think of a better way
7	I like to think over what I have been doing and consider alternative ways of doing it
11	I often reflect on my actions to see whether I could have improved on what I did
15	I often re-appraise my experience so I can learn from it and improve my next performance
	Critical Reflection (CR)
4	As a result of this course I have changed the way I look at myself
8	This course has challenged some of my firmly held ideas
12	As a result of this course I have changed my normal way of doing things
16	During this course I discovered faults in what I had previously believed to be right

Appendix 3 – Illustration of the distribution of responses within each scale (final-year students)

Statement	% of responses by category				
	1	2	3	4	5
HA 1	8	19	13	44	16
HA 5	10	36	24	26	4
HA 9	29	42	13	14	2
HA 13	23	46	14	15	2
HA 1	9	18	15	40	18
HA 5	10	39	18	31	3
HA 9	24	44	16	13	3
HA 13	17	52	14	16	1
U 2	1	4	6	33	56
U 6	1	3	3	28	65
U 10	1	9	10	49	31
U 14	1	10	12	46	31
U 2	2	1	3	37	57
U 6	2	4	6	29	59
U 10	1	10	14	50	25
U 14	1	14	14	49	22
R 3	0	7	10	47	36
R 7	1	14	15	53	17
R 11	2	10	13	55	20
R 15	4	14	13	52	17
R 3	2	7	11	53	27
R 7	1	16	18	50	15
R 11	2	14	14	52	18
R 15	3	18	17	47	15
CR 4	9	21	26	30	14
CR 8	10	30	25	28	7
CR12	9	32	26	28	5
CR16	5	22	27	36	10
CR 4	8	17	16	42	17
CR 8	9	29	16	34	12
CR12	11	26	20	34	9
CR16	6	23	20	40	11

Frequency of responses (1st issue unshaded: 2nd issue shaded)

Appendix 4 – Exploratory statistical analyses on the Critical Reflection scale and its relationship to academic performance

(1)

At the start of the final year there is no significant difference in mean critical reflection scores between those that went on placement and those that did not:

Group Statistics					
	Sandwich student?	N	Mean	Std. Deviation	Std. Error Mean
Critical Reflection [Start of Final Year]	No	161	12.13	3.281	.259
	Yes	230	12.28	3.125	.206

Independent Samples Test						
t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Critical Reflection [Start of Final Year]	Equal variances assumed	-.451	389	.652	-.148	.328

At the end of the final year there is no significant difference in mean Critical Reflection scores between those that went on placement and those that did not:

Group Statistics					
	Sandwich student?	N	Mean	Std. Deviation	Std. Error Mean
Critical Reflection [End of Final Year]	No	98	12.59	3.844	.388
	Yes	152	13.06	3.237	.263

Independent Samples Test						
t-test for Equality of Means						
		t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference
Critical Reflection [End of Final Year]	Equal variances assumed	-1.034	248	.302	-.467	.452

(2)

The Critical Reflection score at the end of the final year is not significantly correlated with the level 3 average:

		Critical Reflection [End of Final Year]	Ave level 3 mark
Critical Reflection [End of Final Year]	Pearson Correlation	1	.084
	Sig. (2-tailed)		.184
	N	251	251
Ave level 3 mark	Pearson Correlation	.084	1
	Sig. (2-tailed)	.184	
	N	251	251

(3)

Pearson's correlation coefficient does not indicate any relationship between level 2 average mark and Critical Reflection score at the start of the placement year ($r = -0.060$, $n = 207$, $p = 0.388$, two-sided).

		Critical Reflection	Level 2 Average
Critical Reflection	Pearson Correlation	1	-.060
	Sig. (2-tailed)		.388
	N	207	207
Level 2 Average	Pearson Correlation	-.060	1
	Sig. (2-tailed)	.388	
	N	207	207

(4)

Data are available on $n = 114$ students who completed the questionnaire at the start of the placement year and again at the end of the placement year (although there are some missing values for one respondent). Summary statistics are given below:

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Critical Reflection	114	6	20	13.22	3.116
Critical Reflection [End of Placement Year]	113	5	20	12.94	3.279

Application of the paired samples t-test indicates that the mean change in the Critical Reflection scores over the placement year is quite small (0.33) and is not deemed to be a statistically significant change ($t = 1.932$, $df = 113$, $p = 0.056$, two-sided).

One-Sample Statistics

	N	Mean	Std. Deviation	Std. Error Mean
Change in Critical Reflection	113	.33	3.589	.338

One-Sample Test

Test Value = 0						
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Change in Critical Reflection	.970	112	.334	.327	-.34	1.00

(5)

Descriptive statistics indicate that the mean level 2 mark for those that did not go on placement is essentially the same mean value as those that did. However, it would appear that the mean level 3 mark is higher in the placement group compared with the non-placement group.

Descriptive Statistics

	Sandwich student?	Mean	Std. Deviation	N
Level 2 mark	No	55.919	7.5460	52
	Yes	57.915	6.8682	114
	Total	57.290	7.1252	166
Level 3 mark	No	56.006	10.0346	52
	Yes	61.285	8.7610	114
	Total	59.631	9.4721	166

Analysis of the data as a 2 by 2 mixed design indicates that there is a statistically significant interaction between Year and Sandwich Status [$F(1, 164) = 7.13$, $MSE = 27.001$, $p = 0.008$]. This indicates that the difference in marks between placement and non-placement students differs between level 2 and level 3 (i.e. there will be a sample difference in mean level 2 marks between the placement group and the non-placement group, there will also be a sample difference in mean level 3 marks between the placement group and the non-placement group, and these two differences differ by more than a chance amount). There is a significant main effect due to sandwich status [$F(1, 164) = 8.798$, $MSE = 107.4$, $p = 0.003$] (i.e. each student has a simple average mark based on their level 2 mark and their level 3 mark; the mean average mark differs between the two groups). There is also a significant main effect due to year (level) [$F(1,164) = 7.902$, $MSE = 27.001$, $p = 0.006$] i.e. the mean level 3 mark differs from the mean level 2 mark.

Tests of Within-Subjects Effects

Measure: MEASURE_1

Source		Type III Sum of Squares	df	Mean Square	F	Sig.
Year	Sphericity Assumed	213.352	1	213.352	7.902	.006
Year* Sandwich	Sphericity Assumed	192.522	1	192.522	7.130	.008
Error(factor1)	Sphericity Assumed	4428.110	164	27.001		

Tests of Between-Subjects Effects

Measure: MEASURE_1
Transformed Variable: Average

Source	Type III Sum of Squares	df	Mean Square	F	Sig.
Sandwich	945.009	1	945.009	8.798	.003
Error	17615.029	164	107.409		

(6)

Regression

Level 3 average mark has been analysed as the dependent variable in an analysis of covariance including an interaction term between the level 2 average (covariate) and placement status (factor). This approach is logically and numerically equivalent to constructing a multiple regression model with level 3 average mark as the dependent variable, and with level 2 average mark, placement status (dummy variable coded) and their interaction as predictor variables. The regression approach has the benefit of detailing explicitly effect sizes, and for this reason the regression output is included in this report. The regression output is given below.

Level 3 mark varies from student to student, and 42.4% of the sample variation in level 3 mark can be accounted for using a main effects regression model with placement

status [dummy variable coded] and level 2 average mark as predictor variables (Multiple $R = 0.651$, $F(2, 163) = 59.958$, $MSR = 52.326$, $p < 0.001$). Under the fitted model, the main effect due to placement status indicates that those students who went on placement had an average level 3 mark 3.681 percentage points higher than those that did not go on placement ($t = 3.015$, $df = 163$, $p = 0.003$, two-sided) after allowing for the linear effect due to level 2 average.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.651 ^a	.424	.417	7.2337

a. Predictors: (Constant), Level 2 mark, Sandwich student?

ANOVA^b

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	6274.722	2	3137.361	59.958	.000 ^a
	Residual	8529.155	163	52.326		
	Total	14803.877	165			

a. Predictors: (Constant), Level 2 mark, Sandwich student?

b. Dependent Variable: Level 3 mark

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	11.231	4.569		2.458	.015
	Sandwich student?	3.681	1.221	.181	3.015	.003
	Level 2 mark	.801	.080	.602	10.045	.000

a. Dependent Variable: Level 3 mark

Appendix 5 - Interview protocol example

1st interview with placement students

Introduction

This interview is intended to solicit your ideas about your learning. There are **two phases** in the interview.

1. The first one relates to your experiences during your second year at university.
2. The second concerns learning while you are/were on placement.

It will be an **open-ended interview** in order to allow you every opportunity to offer your ideas and thoughts on each aspect of the learning experience that we discuss.

Although we shall be talking about your experience in the second year, learning experiences probably have occurred both in class and outside class, for example, at work, home or in social or voluntary activities.

Feel free to talk about any experiences or ideas that come to mind as we discuss each area.

I'd like to remind you that all aspects of the study will be kept strictly confidential and that individual data will not be released to teaching or placement staff.

A report on the study may be submitted for publication. Within that report we may use brief quotations from interviews and, if so, pseudonyms will be used. No identifiable reference will be made to the placement organisation.

Phase 1 – learning during the second year at university

First of all, I'd like to talk about your learning during the second year at university.

What did you study during your second year – tell me a little about it....

As you think about the last year, what is the most significant learning experience that comes to mind?

- A What made it significant?
- B Why is it more important than other experiences?

Appendix 5 - Interview protocol example (continued)

You spent a lot of time in classes. Let's talk about the classes that you had during the second year.

A First of all, talking about lecturers

What things have they done to help you learn?

What things did they not do that would have helped?

Did you have much to do with the lecturer? How did this help you learn?

How did you feel that you got on with the lecturer? Did this affect your learning?

What relationships have you had with lecturers? Did these affect your learning?

What suggestions do you have for change?

B Now, talking about other students

What interactions have you had in class with other students? Were these interactions helpful?

What interactions have you had out of class with other students?

Were these interactions helpful?

What activities with other students do you find you prefer/or find helpful?

Why?

C Now, let's talk about you

What ways (methods) of learning have you found that work for you?

Why do you find these effective?

D Thinking about the course overall

What did you experience on the course that was helpful?

What did you experience that was not helpful?

How could things have been improved? Why?

Appendix 5 - Interview protocol example (continued)

E Thinking about varying points of view – inconsistencies, conflicting views, disagreements

Did you come across this during the second year?

How did you deal with this? How did **you** come to a view?

Why do you think these conflicting views arise?

Thinking about learning outside the university - in your work (prior to placement), home and social life....

Have you found that these aspects of your life have **helped** you learn?

Why?

Have you found that any of these aspects of your life have **hindered** your learning?

Why?

Thinking about university again, is there anything you would change about any aspect of the environment here to make learning more effective?

Thinking about decisions that you had to take during your second year.

A Did you encounter the need to make any decisions about what to believe in the subjects you studied during your second year? If so, describe the situation, how you decided, and why.

B What educational or career decision did you make in your second year? Describe that decision, how you approached it, and why.

Phase 2 - learning during placement

Describe the most effective learning experiences you had during placement (so far).

Enquire as necessary about:

- A The nature of these experiences
- B Whoever is supervising you (Your supervisor's role)
- C Your role as learner/employee

- D Co-workers' role
- E How was your work evaluated and your perception of the degree to which your work was evaluated effectively.

Describe the least effective learning experiences you had during placement so far.

Enquire as necessary about:

- A The nature of these experiences
- B Your work supervisor's role
- C Your role as learner/employee
- D Co-workers' role
- E How was your work evaluated and your perception of the degree to which your work was evaluated effectively.

Describe your role as a learner during placement

- A How are you going about your learning on placement? Why?
- B Is your approach similar to, or different from, the way you approached learning during the second year? Why?

Thinking about decisions that you've had to take during placement

- A Have you encountered the need to decide about things you were doing at work during placement? If so, describe the decision, how you approached it and why.

Thinking about decisions that you've had to take apart from during placement

- A Have you made any major decisions generally since you left uni in June? If so, describe the decision, how you approached it, and why?

Appendix 6 – Context: the university programme

The undergraduate programmes

The project was conducted within BA (Hons) Business Studies (BABS) and the BA (Hons) Accounting and Finance (BAAF) modular programmes at a UK university. The Business School within which these programmes are based comprises a community of more than 3,000 students and 150 staff. In its most recent review the Higher Education Council for England rated the teaching as ‘excellent’. This rating was reconfirmed following a detailed inspection by the QAA which awarded the Business School 23 points out of a maximum of 24.

In common with all the other undergraduate programmes at the institution, the BABS and BAAF students have to study and pass the equivalent of six 20-credit modules each year in order to progress from Level 1 through to Level 3¹⁹. BABS is a general business and management programme with an average of approximately 400 students at each level, while BAAF is a specialist accounting programme with an average of approximately 150 students at each level. While there has been an increasing proportion of overseas student studying on these programmes in recent years, such students do not usually opt for a placement year.

The two programmes share four compulsory business-related modules at level 1, but the two remaining modules differ. While the BABS students learn to deal with basic financial information from a user’s perspective and explore the origins of current work practices and employee relations, the BAAF students study two introductory modules, in financial accounting and management accounting. Thereafter, the BAAF students continue to study more advanced accounting and finance-related compulsory modules (three at level 2 and the equivalent of five at level 3) with a choice from a prescribed list of suggested electives, either specifically related to the accounting profession, or the broader business environment. The latter are modules which are shared with BABS students. The BABS students have five compulsory modules at level 2 and the equivalent of four compulsory modules at level 3. These compulsory modules and the larger number of available electives cover a broad range of business-related fields. Both these programmes are designed to provide a coherent set of modules at each level to support the students’ development of skills and knowledge.

Delivery and assessment of modules

Each module in these two programmes is delivered via the equivalent of at least one ‘large group’ lecture and one ‘small group’ tutorial or workshop per week. For both programmes, the lectures are normally delivered by the tutor who is the designated module leader. In the case of the BAAF programme, the whole cohort at each level is of a size which can be accommodated in one teaching room for the weekly lecture. However, due to the larger cohort at each level on the BABS programme, the students are allocated into ‘lecture groups’ of between 200 and 250 students, and each week’s lecture is delivered to each of these groups at different times during the week. Where

¹⁹ There are potentially four years to these degrees. Level 1 and level 2 relate to years 1 and 2. A placement year comprises year 3. Level 3 refers to the final year, which may be year 3 for non-placement students and year 4 for placement students.

modules are shared with other programmes, students may find themselves in an overall cohort of up to 700 students.

Appendix 6 – Context: the university programme (continued)

For the purpose of conducting ‘small group’ activities, students are allocated into groups comprising between 20 and 25 students for tutorials or workshops under the guidance of a specified tutor, who may not necessarily be the module leader. For BAAF, the module leader is normally responsible for leading some of the tutorials, while the rest are led by one or two other members of the teaching team. Due to the larger student cohort on the BABS programme, the tutorial groups are normally allocated among several different tutors.

Through the use of teaching and learning approaches (such as case studies, visiting speakers, reflective learning journals, and research projects), both the BABS and BAAF programmes seek to highlight and link the theories and concepts encountered in the classroom with real-life practices in the business environment. This is integrated with a variety of formative and summative modes of assessment, which include in-course assignments (e.g. analysis of case studies, production of management and consultancy reports, individual and group presentations) as well as time-constrained interim tests and year-end examinations.

The work-based placement and final-year project

Both the BABS and BAAF programmes offer students the opportunity to undertake a work-based placement after completing their second year of study (Level 2), normally commencing between June and October that year²⁰. The design and assessment of the placement comply with QAA requirements, and the general objectives of the placement year are summarised as follows:

- to provide the student with a period of approved work experience in a host organisation approved by the University
- to develop students’ business skills and knowledge in their chosen vocational areas
- to allow students to reflect on and apply theoretical knowledge gained from their award
- to develop students’ key skills
- to allow students to explore career options
- to enhance students’ graduate employability
- to provide an opportunity to undertake some business research.

In order for the placement to be accredited, students must undertake a minimum of 40 weeks of employment in a university-approved organisation, and complete a documented portfolio of learning activities. The work-based placement is a

²⁰ Placement is a compulsory component of the BABS degree. However, those students who choose not to go on a placement can transfer to a BA (Hons) Business Administration degree at the end of their second year.

compulsory element of the BABS programme, and students are required to formulate a research project, the Independent Study Project (ISP), based on the placement. Data for the ISP are gathered and compiled while students are undertaking their placement. On returning to their final year of study, the students are required to analyse the data for incorporation into their final-year double-weighted ISP dissertation.

Appendix 6 – Context: the university programme (continued)

The Independent Study Project (ISP)

The ISP comprises an in-depth, analytical study of a business issue, problem or practice. The aim of the ISP is to:

- develop skills for independent research and to demonstrate the students' ability to operationalise and apply academic knowledge in the investigation of a business issue or problem
- enable students to acquire analytical and problem-solving skills based on evaluation and synthesis within a work environment
- provide active and independent learning opportunities outside normal classroom-based course delivery modes.

Students undertaking an ISP attend a week of research-related classes in June, after their Level 2 examinations, to introduce them to business research and corresponding data collection methods. These students are required to submit an initial research proposal to the University in mid-February following the commencement of their placement to enable the University's Placement Tutor to allocate an appropriate project supervisor to each student. This initial proposal is assessed and contributes 20% of the marks for the final dissertation. In formulating their proposals, students are advised to identify a current business need or issue in the placement organisation, or an exploratory project that the organisation wishes the student to conduct, and secure the necessary authorisation to gather the necessary data.

During the placement year, while conducting an initial literature review, the students collect the relevant data under the guidance of their university supervisors. On completing the placement and returning to their final year of study, these students complete their literature review, integrating it with their analysis of the data for their dissertation.

Accounting in Context

BAAF students may choose whether they wish to undertake a work-based placement, but students who do so are not required to complete an ISP. Instead, all final-year BAAF students undertake an accounting or finance-related research project of their choice for the double-weighted 'Accounting in Context' (AiC) module. Students who have completed a work-based placement often choose a research topic where their interest has been stimulated by their placement experiences. The aims of the module are to provide students with the opportunity to:

- develop a spirit of enquiry
- take a multi-disciplinary approach to business issues/problems
- develop a critical appreciation of the nature, development and application of knowledge in business
- integrate technical knowledge acquired from study across the programme
- develop as critical consumers of research.

Appendix 6 – Context: the university programme (continued)

The in-course assessment requires the students to undertake a critical review and evaluation of information sources and literature on a topic of their choice. This then forms the basis of a formal report to a finance director of a large international company or partner in large accountancy firm, highlighting the relevant issues that might inform the development of company/firm policy by the finance director/partner, as well as evaluating the relevance and reliability of the information sources and literature used in the report. Consequently, there is an emphasis on the critical evaluation of information and its sources, which differs from the ISP where the focus is on an in-depth review of the relevant literature in order to underpin the analysis of the data gathered during the work-based placement.

Within the AiC module, learning activities are designed to illustrate different levels of reflection, and to provide opportunities for students to engage in different aspects and levels of reflection. These include workshop activities examining current issues in accounting and finance through the critical evaluation of a range of relevant literature, on which students are then required to make group presentations. During the year, students are also expected to maintain a learning journal to support the production of an assessed reflective report. Lectures and clinics using practical examples and exercises are designed to support students in maintaining their learning journals. The end-of-year examination requires students to adopt a multi-disciplinary approach to the identification and discussion of key issues within a case study scenario. A variety of case studies are used by the module tutors as the basis for workshop discussions in preparation for the year-end examination. The teaching and learning activities and the nature of the assessments, therefore, explicitly seek to develop the students' reflective capacity during the module.

The Placement Portfolio

The portfolio comprises a range of activities, some of which involve the students' manager at the placement organisation, while others are based on students' self-assessment and reflection on their learning throughout the placement. At the start of the placement, students are required to discuss and agree in writing a series of initial learning objectives and associated timescales with their line manager. These learning objectives relate to students' work in the organisation, personal development, and their ISP (if applicable). When formulating these objectives, students are advised to take into account the following guidelines:

- Specific – use clear, concise and easily understood descriptions of what you're trying to achieve
- Measurable – how will you measure progress? What are the key milestones on the way to your overall goal? What standards should be set?
- Attainable – set realistic objectives that are challenging but achievable

- Relevant – objectives should contribute to your role/department or to your personal aims for development
- Time-based – set clear timescales to complete each task/activity.

Appendix 6 – Context: the university programme (continued)

Progress and achievement of the initial objectives are considered at a mid-placement review with the manager, with revised objectives and timescales being agreed for a final review at the end of the placement. Students must achieve a satisfactory final review in order to pass their placement year.

The self-assessed student activities comprise the following:

- identifying existing skills and knowledge at the start of the placement, and proposals for how these could be developed
- review and analysis of the placement organisation in respect of its profile (e.g. industry sector, markets, competitors, products/services), management structure, activities in the student's department and the student's role in that department, and current issues faced by the organisation
- reflecting on learning experiences during the placement via
 - the learning record maintained throughout the placement – 'What did you do?', 'What did you learn?', 'How will you benefit from the experience?'
 - the 1,000 word critical incident analysis – selecting two incidents (one positive and one negative) and describing what happened, how/why it happened, what you did and what you felt, what you learned from the incident
- reviewing and reflecting on the attainment and development of skills and knowledge at the end of the placement, supported by evidence where available, and proposals for continuing this development on returning to university
- considering work/career plans after the placement and preparations for job-seeking
- evaluation of the overall experience at the organisation on completion of the placement.

Staff in the University's Placements Office are in regular email and telephone contact with students while they are on placement. With the students' agreement, staff will also visit the students and their managers during the placement. These are informal visits seeking to ensure the placement is proceeding smoothly, and also to discuss students' progress and any development needs.