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**Understanding Students' Learning: A Study of Prospective
Professional Accountants in Ireland**

by

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A Doctoral Thesis

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of the degree of Doctor of Philosophy of Loughborough University**

Volume I - Chapters 1 to 7

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ABSTRACT

This study is concerned with developing an understanding of students' learning as they prepare for the final qualifying examination of a professional accountancy body in Ireland. It explores, from the perspectives of students, approaches to learning for the examination, the factors which influence those approaches and perceptions of the outcomes of the learning process.

The research is conducted within an interpretive framework and it employs both qualitative and quantitative research methods. In-depth interviews examine students' motivations as they prepare for the examination and their intentions to seek understanding in their learning. The interviews also provide rich descriptions of students' detailed study activities, the key factors which influence their learning and their perceptions of learning outcomes. Quantitative data concerning students' learning approaches as they prepared for the final qualifying examination were gathered using the *Approaches and Studies Skills Inventory for Students* (ASSIST, 1997), which was conceptually and statistically validated for use in the particular learning context.

The findings of this study depict students' learning as they prepare for the final qualifying examination as highly contextualised. Students are intent on achieving examination success, primarily for the purposes of progressing their careers as professional accountants. They perceive the qualifying examination to be a hurdle and they plan and engage in their study in order to overcome it and to access the perceived career benefits that lie beyond. Thus, students' preparation is generally framed by strategic motivation rather than by intrinsic interest in the syllabus material or the accounting discipline. They perceive that the examination requires the understanding of material as opposed to simple regurgitation of facts, so they undertake their study with the intention of seeking understanding. While variation is revealed in the ways in which students operationalise this intention in their detailed study activities, deep/strategic learning approaches were primarily found to dominate surface learning approaches.

The study reveals that the key aspects of the professional accounting education environment which influence students' learning are the nature of the final qualifying examination itself (case-based papers, open-book examination environment) and the context in which they work. It also identifies that students' perceptions of the outcomes of the learning process rest firmly on whether they achieve examination success. There is little evidence that students associate the final qualifying examination with developing professional competence or with fostering the knowledge, skills and values required to support lifelong learning.

This study is novel in its combination of the subject matter (students' learning) and the setting (pre-qualification professional accounting education) and it thus contributes to the professional education and accounting education literatures. The findings of the study benefit a range of stakeholders and they particularly contribute to any review of the pre-qualification education system of the particular professional accountancy body.

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CHAPTER 1

INTRODUCTION

- 1.1 An overview of the study**
- 1.2 Motivations for the study and the delineation of objectives**
 - 1.2.1 Pre-qualification professional accounting education - a research opportunity*
 - 1.2.2 Personal experiences*
 - 1.2.3 Objectives of the study*
- 1.3 Structure of the thesis**
- 1.4 Summary**

1.1 An overview of the study

This study develops an understanding of students' learning as they prepare for the final qualifying examination of one of the professional accountancy bodies in Ireland. The research is interpretative in orientation and explores, from the perspective of students, learning approaches, factors which influence learning and perceptions of learning outcomes in this environment of pre-qualification professional accounting education. Using both qualitative and quantitative methods, it establishes that students primarily have strategic motives as they prepare for their final qualifying examination. They view the examination as the final hurdle which must be surpassed in order to bring an end to the long process of qualification and to achieve their ambitions to become professional accountants. Furthermore, qualification is perceived to be the gateway to career freedom. The students do not purport to be significantly motivated by any desire to develop deeper understanding of accounting and related issues or by any serious aspiration for personal discovery. However, predicated on their perceptions of the requirements of the final qualifying examination and the influence of the learning context, deep/strategic learning approaches dominate surface learning approaches. More specifically, the students perceive that the examination requires them to develop deep understanding of the syllabus material in an integrated, holistic manner and so they embrace engaged study activities which, in other contexts, are normally aligned to deep motivations. In terms of outcomes from the learning process, students are focused on the short-term issue of examination success or failure. To a lesser extent, other outcomes such as, changes in self-perceptions and perceptions of colleagues and friends and the implications of success or failure on work allocation and career prospects, are also delineated. However, there is little evidence that the students associate the final qualifying examination with developing professional competence or with fostering knowledge, skills and values to facilitate independent, lifelong learning.

The remainder of this chapter considers the motivations for, and the objectives of, the study. It outlines the structure of the thesis by describing both the content of each chapter and the contribution of each to the study as a whole.

1.2 Motivations for the study and the delineation of objectives

The motivations for this study emerged from the identification of a gap in prior research regarding professional accounting education, coupled with a personal interest in, and experience of, learning in this domain.

1.2.1 Pre-qualification professional accounting education - a research opportunity

For the past twenty years, there has been much debate about the nature and form of pre-qualification education required to prepare prospective professional accountants for challenging and dynamic professional careers. Many review reports have been issued worldwide by professional accountancy bodies and employers, delineating the desired learning objectives of pre-qualification programmes, in terms of the development of students' knowledge, skills and values (American Accounting Association (AAA), 1986; Arthur Andersen et al., 1989; International Federation of Accountants (IFAC), 1996; Albrecht and Sack, 2000). Critically, it is now recognised that pre-qualification programmes, whether in the higher education system or operated by/for professional accountancy bodies themselves, must move away from their traditional focus of imparting large volumes of technical knowledge and, instead, must foster among students a personally developed understanding of the principles and concepts which underpin accounting and business practices. In addition, programmes need to develop a diverse range of skills so that students will ultimately be competent professionals throughout their careers and will have the capacity to adapt to change in every aspect of their professional lives (Accounting Education Change Commission (AECC), 1990; IFAC, 1996). Accounting education within higher education has, to a certain extent, adopted the change agenda and many accounting programmes have undergone significant reorientation and development in recent years. Furthermore, there is a growing body of research pertaining to accounting education in the higher education setting which informs the change process. In particular, such research has highlighted the importance of understanding the process of students' learning, if programmes are contemplating

changes in content, delivery or assessment with the intention of fostering high quality learning outcomes (Lucas, 1996; Beattie et al., 1997; Sharma, 1997).

However, in Ireland¹, Great Britain² and many other countries internationally, graduates seeking professional qualification still have to expend a considerable amount of time and effort preparing for the pre-qualification examinations of professional accountancy bodies. While developments in the content and focus of the pre-qualification syllabi and examinations of many of those bodies have been evident in the light of the change debate, there has been limited prior research emanating from either the professional education or accounting education literatures, which rigorously examines the process of students' learning in pre-qualification professional programmes. This means that formative experiences of prospective professional accountants within pre-qualification professional education have not been explored as one might expect given the complex and challenging learning objectives identified. Furthermore, it indicates that the changes which have been implemented have not been illuminated by contextual student learning issues. Given the research evidence from other learning environments, regarding the influences of students' perceptions of learning situations on their learning approaches and learning outcomes, the absence of similar research in the professional accounting context appears to be a major oversight if the profession is serious about achieving the espoused objectives of pre-qualification education.

Thus, the potential to make a contribution to the professional education and accounting education literatures by exploring students' learning within pre-qualification professional accounting education was identified and the seed for the development of this study was sown. However, the motivation for this study was also inextricable cultivated by my teaching and research interests as an accounting educator and by my personal experiences in qualifying as a professional accountant.

¹ The subjects of this study are students of the Institute of Chartered Accountants in Ireland (ICAI), which is an all-Ireland body crossing the jurisdictions of the Republic of Ireland and Northern Ireland. Thus, all references to Ireland in this thesis relate to both jurisdictions, unless otherwise stated.

² England, Wales and Scotland constitute Great Britain, which hereafter is referred to as Britain.

1.2.2 Personal experiences

As a novice university lecturer, my early teaching experiences developed my awareness of the complex nature of students' learning. Through collaborative research, exploring various aspects of the learning processes of accounting students, my understanding of the variation in learning approaches, the factors which influence those approaches and their relationships with learning outcomes was fostered. While I was immediately aware that theories and concepts developed in the higher education setting were not directly transferable to the professional education environment, I felt that the underlying ethos and approach of that body of research could inform the much needed exploration of students' learning within pre-qualification professional accounting education. Furthermore, I felt that by marrying my growing understanding of the student learning literature with my own experiences of pre-qualification professional education, which are outlined below, I could design and develop the study in a contextualised way.

Before commencing an academic career, I qualified as a Chartered Accountant with the Institute of Chartered Accountants in Ireland (ICAI). The ICAI is the largest and longest-established professional accountancy body in Ireland. It has strong associations with the large international accounting firms and is akin to both the Institute of Chartered Accountants in England and Wales (ICAEW) and the Institute of Chartered Accountants of Scotland (ICAS). Having completed undergraduate and postgraduate degrees in accounting at Irish universities, I became a student member of the ICAI and, at the same time, gained employment as a trainee accountant with one of the now 'Big 4'³ international accounting firms. To qualify and gain membership of the ICAI, I had to satisfactorily complete a three-year training contract and pass the final qualifying examination, which is known as the Final Admitting Examination (FAE). While I achieved these goals in the mid-1990s, my memories of preparing for, and sitting, the FAE are as clear as if I had just taken the last examination paper yesterday. I have distinct recollections of my study activities during the preparation period. I can remember the establishment of detailed study plans to cover the bulging FAE syllabus, the

³ The 'Big 4' accounting firms are the international firms of KPMG, PricewaterhouseCoopers, Ernst & Young and Deloitte & Touche.

Careful preparation of notes and reference materials which could be referred to in the open-book examination and the concerted efforts to integrate knowledge from different subject areas so that I was appropriately prepared to cope with the interdisciplinary, case-based papers. However, I also have deep-seated memories of the emotional and personal experiences that the FAE process evoked and which were intrinsically inter-twined with my objective study activities.

One of the things of which I was conscious at the time, was the variation in my experiences of the FAE compared to those of some of my friends and peers. Reflecting on this variation, particularly in the light of my increasing cognisance of learning literature, it was apparent that the FAE evoked different perceptions and reactions in different students and affected motivations and study activities in a variety of ways. Thus, as the plans for this study developed, I was intent on capturing students' personal experiences of learning.

As outlined, my personal experiences of the FAE provided impetus for the study and indeed those experiences were informative at various times during the conduct of the study. However, I was aware throughout the study that my own experiences were literally that, i.e., my own, and they were not necessarily similar to the experiences of other students. Thus, the study was planned to gather and analyse data concerning the learning experiences of students participating in the study. There is no doubting that my own experiences informed the issues explored and created empathy with the participants, but the findings of the study relate to the learning experiences of those participants. Thus, throughout the remainder of the study I revert to identifying myself as 'the researcher', but in the final chapter I reflect on what the study and its findings mean to me as a 'graduate' of the process explored and as an accounting educator and researcher.

1.2.3 Objectives of the study

As a consequence of the motivations and interests delineated, this study was initiated to develop an understanding of students' learning in the environment of pre-qualification professional accounting education. Specifically, the study aims to understand how students approach their learning as they prepare for the final

qualifying examination of a professional accountancy body. It explores students' motivations for studying for the examination, their intentions with regard to seeking deep understanding of the material presented and their actual study activities. Additionally, the study aims to examine the factors which influence students' learning approaches and, in particular, it interrogates their perceptions of the specific learning environment. Furthermore, the research strives to consider students' perceptions of the outcomes of the pre-qualification professional education process. This research is located in the field of professional education, and draws heavily from the student learning literature developed in the higher education setting. The study was planned with the intention of exploring learning from the perspectives of students and to expose and interrogate their personal experiences of learning in the environment of pre-qualification professional accounting education in Ireland.

The FAE of the ICAI provides the setting for this study and it was chosen for a number of reasons. Firstly, as already indicated, the ICAI is the largest and longest established professional accountancy body operating in Ireland. Secondly it is an Irish organisation, as opposed to the many British bodies which operate in the market, thus, its education policy and practices are established in Ireland. Thirdly, the researcher is a member of the ICAI and she has links with the organisation through her employment as an accounting lecturer at an Irish university. While the findings of this study will be particularly enlightening for the ICAI in terms of reviewing its existing pre-qualification education programme, it may also usefully provide directions for future research for other professional accountancy bodies. Importantly, the study will also contribute to the professional education and wider accounting education literature by exploring pertinent student learning issues in a setting which has been neglected by prior research.

The next section of this chapter describes the structure of the thesis and it provides an outline of each of the remaining chapters.

1.3 Structure of the thesis

Chapters 2-4 of the thesis present the literature review pertaining to the study. Chapter 2 locates the study in the domain of professional education and explores the objectives of professional education in terms of the development of professional knowledge and competence. Traditional pre-qualification professional education systems are evaluated in the light of their espoused objectives and it is identified that there is an absence of research exploring learning issues of prospective professionals within pre-qualification programmes. To develop the framework for this study, which examines students' learning within pre-qualification professional accounting education in Ireland, Chapter 3 draws on the literature which explores students' learning within the higher education sector. It examines the development of research on learning from the perspective of students and particularly delineates the issues of learning approaches, influences on learning approaches and relationships with learning outcomes. The chapter highlights the context-dependent nature of learning and considers the appropriateness of extending the student learning paradigm to the new setting of pre-qualification professional accounting education for the purposes of meeting the objectives of this study. Chapter 4 provides an overview of the setting for this study, namely the FAE programme of the ICAI. To explicate this context, the position of the ICAI within the accounting profession in Ireland is explored, the development of its pre-qualification education programme is evaluated and the wider accounting education change debate is examined.

In summary, the three literature review chapters support the delineation of the objectives of this research study. They locate the study in the field of professional education, they develop the framework for the study by drawing heavily from the student learning paradigm established in higher education research and, finally, they foster a contextualised understanding of the setting of the study.

Chapter 5 provides an account of the consideration of methodological issues in the design and execution of the study. It considers the philosophical assumptions underpinning social science research and their interplay with qualitative and quantitative research approaches. The philosophical orientation of the researcher

is outlined and its alignment with the research objectives and selected research approaches is delineated. Ultimately, the design of the study as a series of phases is explained and a justification of different research methods used within an interpretative framework is presented.

The first phase of empirical work, which embraces exploratory depth interviews with eight students who presented for FAE 2000, is described in Chapter 6. The interviews are analysed using narrative analysis in conjunction with the technique of template analysis, and they expose students' motivations, intentions to seek understanding in their learning and their study activities. The analysis also identifies factors which influence students' learning and their perceptions of outcomes of the FAE process, to the extent that a tentative model of students' learning in the FAE context is presented.

Building on the qualitative examination of the nature of learning approaches of FAE students who participated in the exploratory interviews, Chapter 7 presents the quantitative analysis of the learning approaches of a sample of 325 students as they prepared to take the FAE in 2001. The Approaches and Studies Skills Inventory for Students (ASSIST) was used to gather the data, having firstly been validated conceptually and empirically for use in the context of pre-qualification professional accounting education in Ireland. The mean scores of the sample, and sub-groups of the sample, are analysed and other data gathered by ASSIST concerning conceptions of learning and teaching and course preferences, which influence learning approaches, are considered. Furthermore, the chapter quantitatively evaluates the relationships between learning approaches and FAE success or failure.

Chapters 8-10 detail the findings of the final phase of empirical work, which consisted of in-depth interviews with 20 students who successfully completed FAE 2001 and 10 students who were unsuccessful. Drawing on the findings of the earlier phases of the study, the interviews interrogate the qualitative variation in students' approaches to learning and their perceptions of the outcomes of the FAE process. Chapter 8 specifically presents the analysis of learning approaches by examining students' motives and intentions and using the themes of 'time',

'syllabus' and 'organisation' to examine their detailed study activities. Chapter 9 analyses the perceptions of the successful students regarding the outcomes of the FAE process. It firstly explores the meaning of success to the students, their self-perceptions and their perceptions of how they are viewed by others. It then considers their reflections of FAE success factors, how they perceive FAE success to be interpreted in the workplace and the implications of success for their careers. Finally, the chapter examines the students' perceptions of the personal benefits, in terms of knowledge, skills and experience, of the FAE process. Chapter 10 considers the perceptions of the unsuccessful students with regard to many of the same issues, e.g. meaning of examination failure, self-perceptions, interpretations of failure in the workplace, etc. It also explores their interpretations of the reasons for their failure and how they plan to approach preparing to retake the FAE. Variations in the perceptions of successful and unsuccessful students are also examined.

Chapter 11 draws together the findings of the three phases of empirical work. It reflects on the complex montage of students' learning within a pre-qualification professional accounting programme, which has been constructed from the findings of the exploratory interviews, the quantitative analysis and the further depth interviews. Consideration is then given to the meaning of the outcomes of the study for different stakeholders, namely, the ICAI, the wider accounting profession, accounting educators, students, employers, government and regulatory bodies and the public.

Chapter 12 reviews the study, by reflecting on its objectives, process and findings and by evaluating its strengths and limitations. Suggestions for future research are then presented and the chapter concludes with the researcher's reflections on what she has learnt and gained from the study as both an accounting educator and researcher.

1.4 Summary

This chapter has provided an overview of the study reported in this thesis. It has delineated the motivations for the study, presented the structure of the thesis and outlined the contribution of each chapter to the study as a whole. The next chapter locates the study within the field of professional education and, in so doing, initiates the development of the framework for the study.

CHAPTER 2

PROFESSIONAL EDUCATION

2.1 Introduction

2.2 The nature of professions

2.3 The concept of education

2.4 Professional education

2.4.1 Objectives of professional education: Professional knowledge and competence

2.4.2 Forms of professional education

2.5 Summary

2.1 Introduction

This chapter locates this study in the field of professional education, where professional education is generally understood to refer to the formal pre-qualification and continuing education of members of professions. While this study will concentrate on the learning approaches and learning experiences of prospective professional accountants during their pre-qualification education, issues pertaining to professional education generally are explored in order to appropriately frame the research. The objectives of professional education and the concepts of professional competence and professional knowledge are investigated and traditional forms of pre-qualification professional education are critically reviewed. The chapter commences, however, with a brief exploration of the nature of professions and the concept of education.

2.2 The nature of professions

Consultation of a dictionary often represents a useful starting point when one desires to determine the meaning of a word. In this case, at the outset of a brief examination of the nature of professions, The Oxford Modern English Dictionary (1992, p.885) provides the following definition:

profession *n* – 1 a vocation or calling especially one that involves some branch of advanced learning or science (*the medical profession*). 2 a body of people engaged in a profession.

The literature on the professions also abounds with many similar definitions, as exemplified by Robinson (1983) and Perks (1993):

.... the word “profession” came to mean an occupation in which one professes to be skilled or learned, and in which one's skill or learning is applied to the affairs of others (Robinson, 1983, p.87).

(*A profession is*) a vocation in which professed knowledge of some department of learning is used in its application to the affairs of others or in the practice of an art founded upon it (Perks, 1993, p.2).

From these basic definitions, a tentative understanding of the term profession can be drawn: it refers to an occupation, which requires advanced learning and which evokes some vocational or service notion. However, further examination is necessary to provide a solid foundation for a study in the field of professional education.

Professions are seen as prestigious, eminent occupations and many occupational groups aspire to achieve professional recognition (Jarvis, 1983, p.20, Wilensky, 1964). Professions are at the heart of the functioning of society and their status and role are highlighted by Abbott (1988, p.1):

The professions dominate our world. They heal our bodies, measure our profits and save our souls.

While many professions have their origins in medieval times¹ it was only with the rise in the development of the social sciences that sociologists made efforts to study them (Abbott, 1988, p.3). The first major study of the professions is attributed to Carr-Saunders and Wilson (1933). This seminal piece of work, and much subsequent research (e.g. Greenwood, 1957; Millerson, 1964), adopted a functionalist approach to the study of professions, viewing them as serving the needs of society, by undertaking highly skilled, essential tasks (Willmott, 1986). These studies focused on explicating the distinctive characteristics of professions. Traits such as a specified body of knowledge, education and training, professional authority, a code of ethics and self-regulation have been identified as distinguishing professions from other occupational groups, as Wilensky (1964, p.138) comments:

Any occupation wishing to exercise professional authority must find a technical basis for it, assert an exclusive jurisdiction, link both skill and jurisdiction to standards of training, and convince the public that its services are uniquely trustworthy.

¹ In considering the professionalisation of occupations, Wilensky (1964) delineates the timeframe when different established professions emerged. He states that a number of professions have been solidly established since the Middle Ages: law, the clergy, university teaching, medicine. During and after the Renaissance, the military provided professional careers. Dentistry, architecture and some areas of engineering were recognised as professions in the early 1800s, whereas professions such as accounting emerged later in that century. Wilensky contends that many occupations are in the process of professionalisation, e.g. social work.

Thus, it is perceived that professions, in addition to holding expert dominion over a systematic knowledge base, adhere to a set of professional norms and standards in conducting their work for the service of others. This notion of service implies that the professional prioritises clients' interests over his/her own personal interests.

Many alternatives to the functionalist approach to the study of professions have developed in an attempt to better understand the nature of professions. The interactionist approach studies professions as interest groups who seek to demonstrate their legitimacy to be recognised as professions. Rather than viewing professionals at work as displaying a set of attributes, interactionists view professional work as

...a process of constructing and maintaining an occupational role which enables them to “get by” and “make out” in their dealings with their clients (Willmott, 1986, p.557).

The development of a critical approach to the study of professions was prompted by a desire to illuminate the institutional politics of professionalisation. Willmott (1986) argues, drawing on the work of Larson (1977), that such an approach views professional bodies as a “means of achieving collective social mobility by securing control over a niche within the market for skilled labour” (p.558). Abbott's (1988) perspective for the study of professions focuses on the system of professions. He asserts that the system of professions is a structure, linking the professions with tasks, and linking individual professions to each other. In examining below the systems level, Abbott investigates “differentiation within the professions themselves” (p.315) and above the systems level, he explores the impact of larger social forces. At both these levels, the focus of Abbott's investigation is on the relation of these phenomena to systems' conditions. It is interesting that Abbott shies away from the urge to produce a definition of the term ‘profession’. Indeed, he claims that the term is not “objectively” definable because of “its power and importance in our culture” and he prefers instead a loose, working description: “professions are somewhat exclusive groups of individuals applying somewhat abstract knowledge to particular cases” (1988, p.318).

While there may be debate about the strengths and weaknesses of the various approaches to the study of professions - the examination of which is outside the scope of this study - it is clear that advanced knowledge and skills play essential roles within professions. The knowledge and skills expected of members of a profession must be developed and maintained through the profession's education and training system. A prospective member's technical knowledge is typically developed through pre-qualification education programmes and is tested by qualifying examinations. Concurrently or subsequently, the operationalisation of this knowledge in practice, and the development of skills, occurs during the training of the prospective member in the workplace. Thus, education and training complement each other in preparing a prospective member to become a professional and they should continue after qualification to ensure the maintenance of knowledge and skills.

Within the functionalist tradition, education and training are seen as principal distinguishing features of a profession, providing members with the mastery of the body of specialised knowledge necessary to discharge their professional responsibilities². The mastery of a specialised body of knowledge provides the foundation for professionals' interactions with their clients, which are the focus of the interactionist approach, whereas within the critical approach the education system provides the profession with the mechanism to maintain control over its niche market. It should be noted that there are many other features of professions that are very important in maintaining their status and position in society, e.g. self-regulation. However, as this study is essentially an exploration of the learning of prospective professionals during their pre-qualification professional education programme, the literature on the professions generally will not be examined in great detail. Instead, priority will be given to issues pertaining specifically to professional education. But, before departing on an examination of various issues surrounding professional education, it is necessary to briefly explore the meaning of education in broader terms.

² Wilensky (1964) posits that the determination of standards of education and training represented one of the earliest concerns for the established professions in the process of professionalising their respective occupational area.

2.3 The concept of education

In the western world education is one of the greatest consumers of public funds and employs more people than almost any other social agency (Egan, 1997, p.1). Despite this level of spending and the familiarity and contact of western citizens with education systems, there is a lack of clarity about the concept and philosophy of education (Allen, 1988, p.13). Peters (1967, p.1) contends that education is a concept which “is not very close to the ground” and he acknowledges that “in exploring the concept of education a territory is being entered where there are few signposts”. The word 'education' is most commonly thought to derive from the Latin verb *educare*, which means to bring up or rear a child and thus, explains the principal reason why education is most readily associated with childhood (Jarvis, 1983, p.1). However, it is also recognised that the word 'education' may alternatively, or additionally, be derived from the verb *educere*, which means to draw out or lead forth. This derivation provides an explanation of the extension of the term education to activities other than childhood schooling and is also in keeping with humanistic ideal of education regarding the development of the person. Allen (1988, p.13) suggests that this humanistic aspect of education inextricably links the discussion of the concept of education with the discussion of the purposes and aims of education.

Since the time of the early Greek philosophers the purpose or role of education has been the subject of much debate. Egan (1997) identifies three different ideas of education which have influenced and defined educational developments and policy over time. The first perspective views the principal goal of education as socialisation. This means that systems of education introduce students to the “knowledge, skills, values and commitments common to the adult members of society” (Egan, 1997, p.10). The intention of such systems is to encourage the young to conform to modern social norms and very limited non-conformity can be accommodated.

The second view of education is drawn from the work of Plato and conceptualises education as the development of knowledge which provides the student with a privileged, rational view of reality (Egan, 1997, p.13). Plato argued that only in

studying increasingly abstract forms of knowledge “could the mind transcend the conventional beliefs, prejudices, and stereotypes of the time” and come to see world clearly (Egan, 1997, p.13). It is evident that this view of education involving the challenge to conventional wisdom is at odds with the notion of socialising students and developing an acceptance of social norms and values. Despite this, it is widely accepted that schools contribute to the intellectual development of the young in ways espoused by Plato, which are not immediately justified in terms of social utility. This is evident in the inclusion of subjects such as Latin, Greek, ancient history and drama in many school curricula.

The third idea of education emerged from the work of Rousseau and focuses on understanding the nature of the development of the individual. This view of education acknowledges the individual differences of learners. It recognises differences in forms of learning and methods of teaching and places strong emphasis on active rather than passive learning. The influence of this view of education is evident in the widespread acceptance and acknowledgement in the classroom today of many of the ideas of individual and active forms of learning.

Egan (1997, pp.17-26) argues that the three different views of education are to some extent incompatible and that education policy makers have struggled to deal with the tensions among the different approaches. The benefits of each view of education can be easily recognised. However, in many respects, it appears that the tensions between the different views have contributed to the difficulty of defining education or its purpose. Many other authors have similarly grappled to align the multiple purposes of education. Peters (1966, p.23) contends that the phenomenon of education is too complex and multidimensional to be defined adequately and discusses the concept of education and its aims and purposes in the light of what is considered an educated person. He contests that an educated person is not someone who simply possesses a skill but rather has an understanding of principles and why things are (Peters, 1967, p.6). Further, the knowledge and understanding of an educated person is not confined to a single area, rather the notion of being educated implies “a more all-rounded type of development” (1967, p.7). Indeed, Peters contends that the breadth of knowledge and understanding developed distinguishes education from training. He asserts that

... 'training' always suggests confinement. People are trained *for* jobs, *as* mechanics, and *in* science. No one can be trained in a general sort of way. But this lack of specificity is just what is suggested by 'education' (1967, p.7).

The distinction between education and training in the context of the accounting profession will be outlined in Chapter 4. At this point, it is sufficient to identify the broad-based nature of education.

While Peters (1967) places a great deal of emphasis on the nature of knowledge and understanding developed by an educated person, he does not ignore the development of the individual. He contends that education develops the students themselves and transforms how they see themselves and the world (1967, p.8). White (1990, p.23), while acknowledging the difficulty in defining education, argues that the well-being of students is central to the whole process of education. Jarvis (1983) similarly emphasises the humanistic quality of education and the importance of the well-being and personal growth of the learner:

Education is a humanistic process in which the participants should be able to fulfil their own human potential, develop their selves and learn to be (p.131).

Egan (1997, p.1) affirms that one of the goals of an education system is the self-fulfilment of citizens but he also identifies that education systems aim to enhance the competitiveness of nations, thus he emphasises the role of education to society. The contribution of an education system to both the individual and society is reflected in the Irish Government's White Paper, 'Charting our Education Future' issued in April 1995:

The State's role in education arises as part of its overall concern to achieve economic prosperity, social well being and a good quality of life within a democratically structured society (Department of Education, 1995, p.4)

It is clear from the literature presented above that education is viewed as being worthwhile and associated with value (Allen, 1988, p.13). Peters argues that this sense of worth and value commits education processes to morally legitimate procedures (1967, p.3-5). Hence, processes which may enhance knowledge, but which would be viewed as morally objectionable, such as indoctrination and

conditioning, do not constitute education. For processes or activities to be considered as education they must involve the notion of intention. The learner must know what he/she is doing and the process must be designed with the objective of supporting the learner (Peters, 1967, p.9).

The definition of education promulgated by the United Nations Educational, Scientific and Cultural Organisation (UNESCO) highlights that it involves “organised and sustained instruction designed to communicate a combination of knowledge, skills and understanding valuable for all activities of life” (quoted in Allen, 1988, p.13). The association of education with instruction and teaching is not unusual and indeed teachers and lecturers are often essential to the effectiveness of education. However, the success of an education process can only be defined in terms of the achievement of the learner. Peters (1967, p.3) argues that the notion of teaching cannot be characterised without the notion of student learning and “the teacher’s success, in other words, can only be defined in terms of that of the learner”³. The centrality of the notion of learning to the concept of education and education processes is reiterated by Jarvis (1983, p.3): “education is always associated with a specific activity – that of learning”. He recognises that the process of learning, that is the various activities engaged in by the learner, may not be observable (e.g. reflecting) and that education is an ongoing process; it is dynamic:

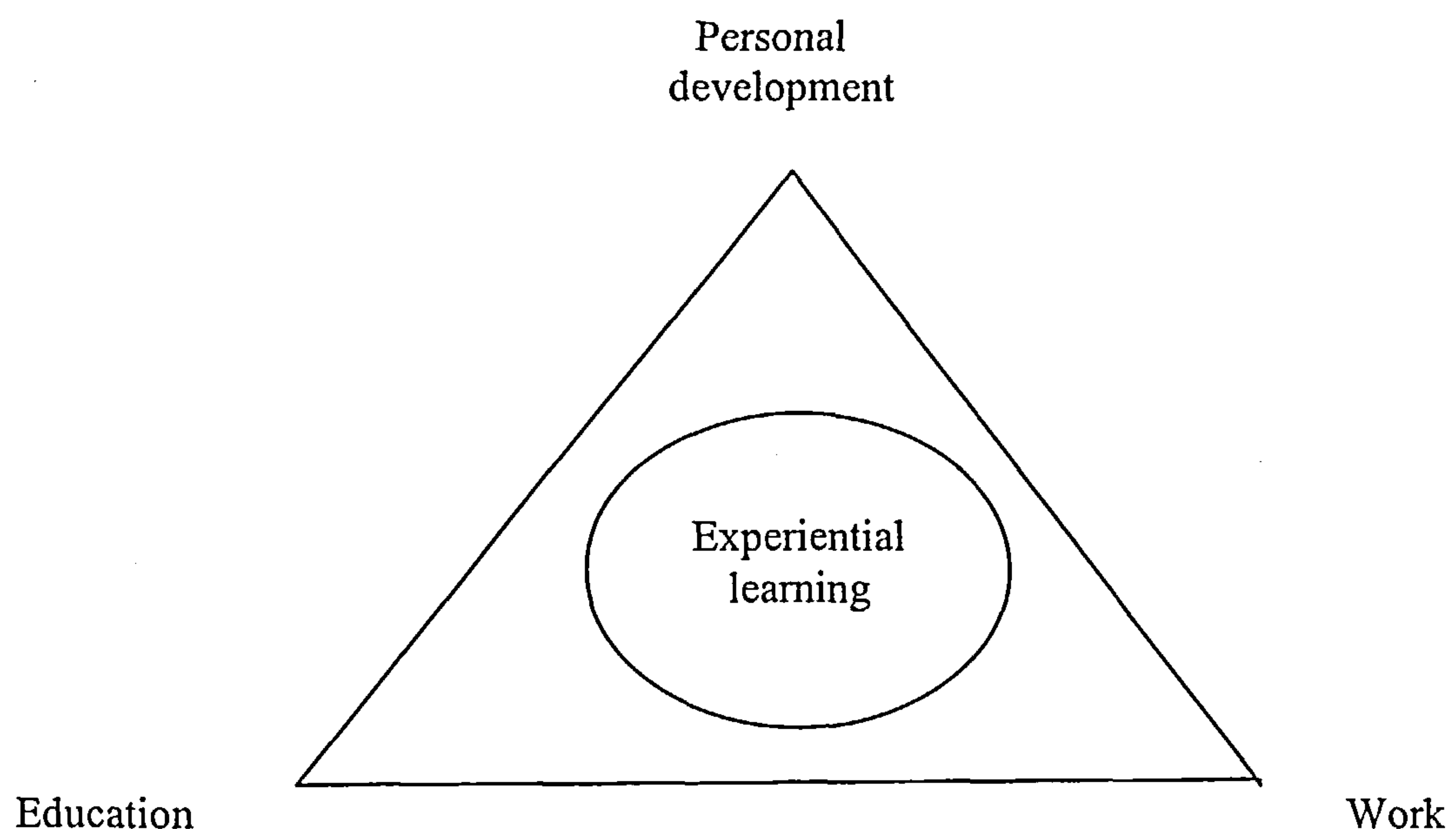
Education is certainly not a ‘one-off’ occurrence but is about a series of events in which learning is intended (Jarvis, 1983, p.4).

This quotation raises the notion of intention in relation to the concept of education again. Jarvis (1983, p.4) contends that intention is important in discriminating educational learning processes from other learning processes. If activities or events take place and learning occurs, this does not necessarily imply that the process constitutes education. Education involves only those processes that are planned, and are intended to facilitate learning, as was expressed in the UNESCO definition. However, this does not mean that the contribution of learning in other

³ It is interesting that Barnett (1988) reiterates, in the context of considering the aims of higher education specifically, that the achievement of an education system is essentially the student’s own achievement.

forms cannot be acknowledged. Kolb (1984) has been at the forefront of the debate concerning learning from experience. He argues that, in an environment of increasing knowledge obsolescence, learning has become a lifelong activity. Most people will not exclusively encounter learning in a formal, instructed way over their lifetime, but rather will learn also from their life experiences. Indeed, Kolb argues that experiential learning links formal education, work and personal development, as is shown in Figure 2.1. Acknowledging the interplay between formal education and learning from experience is very apt for professions, as they commonly view the development of professional competence as a function of education and work-based training and practice.

Figure 2.1: Experiential learning as the process that links education, work and personal development



Source: Kolb, 1984, p.4

It is evident that learning is an integral part of education and, as such, it will be a principal concern in any study of education. Learning is a much used term. However, as it is a complex, multi-dimensional concept, it is poorly defined. Entwistle (1997) describes the outcome of learning as “what students can demonstrate of their increases in knowledge and changes in understanding as a

result of their experiences in school or college” (p.3). Consequently, educational processes commonly have as their objective the facilitation of students’ learning to achieve the outcome of demonstrating increases in knowledge and understanding. An exploration of the nature and meaning of professional knowledge will form a significant portion of the remaining part of this chapter. Therefore, at this point, the author simply wishes to draw attention to the two strands or dimensions of learning which are inextricably linked – knowledge *and* understanding. Knowledge gained without an understanding of that knowledge does not constitute a complete form of learning.

To conclude this section, a brief summary of the exploration of the concept of education is needed. In the first instance, education appears to be perceived as a good and worthwhile thing. It contributes to personal growth and development of the individual, it socialises the individual to social values and norms of behaviour, it develops his/her knowledge and understanding of the world, and enables him/her to contribute to the economy and society. Education processes support the achievement of these goals, but the learner and his/her learning are at the centre of the success of an education system. Education processes and systems may be associated with all ages and groups in society and the issues raised above will permeate all forms of education. The following section considers many of the issues raised in relation to the education of members of professions.

2.4 Professional education

There is an increasing body of literature concerning the professions in which the nature of professions, the process of professionalisation and socialisation processes have received much attention. While there are many studies on the education and training for specific professions, “there has been comparatively little written about professional education as a field of study distinct from higher education” (Taylor, 1997, p.3). The following sub-sections aim to examine the core issues pertaining to professional education, so that the author’s specific study of student learning experiences within pre-qualification professional accounting

education will be suitably informed. The objectives of professional education are explored and the criticisms of traditional professional education are examined.

2.4.1 Objectives of professional education: Professional knowledge and competence

Setting objectives is a common activity in the modern world. The identification and expression of objectives occurs when systems are designed or re-evaluated, or activities or events are planned. Objectives are the expression of goals for the future and they provide a guide and framework for the activities of organisations and individuals. The selection of specific objectives usually requires the consideration of alternative objectives and an evaluation of the appropriateness and suitability of each. Setting objectives in an educational environment is as important as in any other context. Educational objectives express the goals of an education system. Furthermore, they provide a framework for the design, operation and evaluation of that system. Thus, it is very important that objectives are carefully considered in the context of each education system and that other aspects of the education system such as curriculum, teaching and assessment are aligned with these objectives.

Bloom (1956) suggests that there are three main sources of educational objectives, consideration of which can explicate the objectives in any educational system:

- the needs of students in their present stages of development;
- the demands that will be placed on students on completion of their programme;
- natural objectives arising from the subject matter.

As a result of the clear association of professional education with professional practice, the demands facing professionals during their careers dominate debates surrounding educational objectives within professional education (Carter, 1985). Indeed, the development of professional competence emerges as the critical objective of professional education. While much of the remainder of this section explores aspects of professional competence, care must be taken to ensure that objectives arising from the other two sources identified by Bloom (1956) are not wholly overlooked within professional education. In particular, if programmes

are to fulfil the humanistic aspect of education highlighted in considering the concept of education generally, the facilitation of learners' personal growth through their learning experiences requires attention⁴.

Competence is not clearly defined in the literature on the professions. Cheetham and Chivers (1996) contend that the concept of competence is a difficult one to pin down in any sphere of work, but it is particularly problematic in the arena of the professions, where roles can be complex and the knowledge and skills involved are multifaceted. However, there appears to be a general understanding that professional competence infers that an individual is able to fulfil his occupational and professional responsibilities satisfactorily. Jarvis (1983, p.34) suggests that competency is embodied by good practice based on sound theory, and therefore, "this demands that the practitioner should have both the knowledge and the skill to undertake the demands of the job, proficiency in one but not the other area is less than competency." The development and use of knowledge and skills in professional practice is at the heart of the concept of competence. Moreover, competence is a dynamic concept. Drawing on the model of skills acquisition devised by Dreyfus and Dreyfus (1986), literature on expertise has explored how a professional progresses from being a 'novice' to an 'expert'. The ultimate challenge for professional education programmes is to support and foster this progression in an appropriate manner and in a way that recognises the inherent role of professional practice in this development.

The concept of professional knowledge is a complex one, the exploration of which is made more complicated by the different expressions of its constituent parts and the blurring of boundaries between knowledge and skills. Jarvis (1983) contends that there is value in understanding the nature of knowledge generally before interrogating the concept of professional knowledge. He argues that knowledge has both objective and subjective orientations, in that an individual can acquire and accumulate objective information and through subjective

⁴ It is interesting to note that in considering the implications of Bloom's (1956) taxonomy of educational objectives, which were classified into three domains (cognitive, affective and psychomotor), Deakin et al., (1974) contended that accounting courses should prioritise the cognitive domain, as the other two were "not as relevant to the discipline of accounting" (p.584).

processing he/she can convert it into knowledge (Jarvis, 1999, p.147). In other words, knowledge is created when a learner interprets, analyses and internalises information, or reflects on his/her learning experience and/or the use of knowledge in a practical situation (Jarvis, 1983, p.65). It is also recognised that an individual can construct knowledge through his/her experiences of phenomena. Jarvis (1983, pp. 67-77) also asserts that knowledge can be of different levels and can take different forms. Knowledge levels refer to both the degree of understanding of, and use that a learner can make of, knowledge⁵, whereas the form of knowledge describes its inherent nature. A common delineation of forms of knowledge is the distinction between 'knowledge that' and 'knowledge how'⁶, where 'knowing that' commonly refers to an individual's factual knowledge, whereas 'knowing how' captures knowledge of application and embodies many issues commonly pertaining to skills. The complexity of the concept of knowledge is further exacerbated by recognition that an individual's knowledge is not confined, but rather it is dynamic, evolving and constantly being constructed.

Professional knowledge is “that selection from the overall body of knowledge considered by members of the profession to be the foundation of their practice” (Jarvis 1983, p.74). Due to the rapid changes experienced in so many aspects of professional life, the boundaries of professional knowledge are not static and when the body of knowledge becomes too broad specialisation within the profession often occurs. Command of a specialised knowledge base is one of the key features distinguishing a profession from other occupations (i.e. medical knowledge is the domain of the medical professional, legal knowledge the domain of the legal profession). Eraut (1985) asserts that many previous efforts to map the knowledge requirements of professions have focused on designing syllabi, examinations and regulations to control entry to the profession, rather than truly

⁵ Bloom (1956) suggests that there are six levels of knowledge:

- (1) To have knowledge – recall of specifics, universals, processes, methods, patterns, structures etc
- (2) Comprehension – the lowest level of understanding, so that the learner can make use of the knowledge learned.
- (3) Application – to be able to use abstractions in both a concrete and particular situation.
- (4) Analysis – the breakdown of knowledge into its constituent parts in order to clarify ideas.
- (5) Synthesis – the putting together of parts into a whole to reveal new ideas.
- (6) Evaluation – judging the value of the knowledge. (Source – Jarvis, 1983, p.69)

⁶ The distinction between 'knowing that' and 'knowing how' was first made by Ryle (1949) (Source: Eraut, 1992, p.105).

seeking what is meant by professional knowledge. However, it is now readily recognised that professional knowledge comprises more than simply discipline specific factual knowledge. As indicated above, Jarvis (1983) favours the delineation of knowledge forms into 'knowledge that' and 'knowledge how' and he analyses professional knowledge under this rubric. He describes 'knowledge that' in a professional context as the discipline specific, academic knowledge associated with any profession. He argues, however, that it is 'knowledge how' which transforms this theoretical knowledge into professional practice. Commonly the application of knowledge in practice is viewed simply as a skill, but Jarvis (1983, pp. 67-77) contends that different aspects of skills need to be explicated. He acknowledges that there is often a psycho-motor, practical element of a skill required to perform the operation. However, there is also a significant cognitive element of putting factual knowledge into practice, which involves the professional thinking about the practical situation, critically evaluating it, selecting a course of action, changing it if the need arises and constantly reflecting on the process. Jarvis asserts that these activities are 'knowledge how'. Ultimately, in a professional context, combining knowledge ('knowledge that' and 'knowledge how') with skills (practical operation) is absolutely essential:

A professional who has mastery of knowledge without the skills to perform his practice is of no more value than one who has skills but not the knowledge (1983, p.75).

Hence, Jarvis (1983) envisages professional competence as knowledge (embracing 'knowledge that' and 'knowledge how'), skills and a third element, professional attitudes (see Table 2.1). This dimension relates to moral values and commitment to the ideology of the profession.

It can be seen from Table 2.1 that, while the initial delineation of the elements of professional competence appears straightforward – knowledge, skills and professional attitudes – it is far from being so, as the three elements are very much inter-related, overlapping concepts. For example, knowledge embraces not only knowledge of the relevant academic discipline, but also knowledge regarding skills and moral values. It is important for professional educators to understand the elements of competence and the interweaving of these elements if they aim to develop among prospective members the ability to discriminate competent work

from incompetent work and the ability to constantly evaluate their own competence.

Table 2.1 Elements of professional competence

<i>Knowledge and understanding of:</i>	<i>Skills to:</i>	<i>Professional attitudes:</i>
-Academic discipline -The psychomotor elements of skills -Interpersonal relationships -Moral values	-Perform psycho-motor procedures -Interact with others	-Knowledge of professionalism -Emotive commitment to professionalism -Willingness to perform professionally

Source: Jarvis (1983, p.35)

Eraut (1985, 1992) asserts that commonly there is an oversimplified view of what constitutes professional knowledge, and that artificial distinctions are made between the theoretical, practical and experiential, which fail to acknowledge the inter-relatedness of these different knowledge forms. He explains that describing and/or prescribing a profession’s knowledge base is complicated, as many areas of professional knowledge and judgement are not codified and many professionals “cannot explain the nature of their own expertise” (1992, p.101). Wilensky (1964) contends that "professional knowledge, like all knowledge, is to some extent tacit" and that the expert professional can only communicate a fraction of his knowledge. Indeed, the inaccessibility of tacit knowledge contributes to the exclusive jurisdiction of professions by excluding their expertise from undue question and criticism. Eraut's (1985) map of professional knowledge denotes three subcategories: (1) propositional knowledge; (2) process knowledge; (3) personal knowledge. Each of these three categories will now be examined and the overlap of the map with the categorisation of professional competence (knowledge, skills and attitudes) proposed by Jarvis (1983) will be considered.

(1) Propositional knowledge

Drawing on the work of Schon (1983), Eraut (1985) describes three sub-elements of propositional knowledge:

- Discipline-based theories and concepts, derived from bodies of coherent, systematic knowledge.
- Generalisations and practical principles in the applied field of professional action.
- Specific propositions about particular cases, decisions and actions (p.120).

The first sub-element is commonly referred to as the theoretical knowledge base of a profession and it does not usually rely on the field of professional action (Eraut, 1985). The difficulty with this type of knowledge is that, while its validity is generally unquestioned, its relevance to practice and practice training is subject to debate. An example of such theoretical knowledge in accounting is the concept of measurement. There is wide recognition of the validity of this concept regarding the field of accounting. However, in practice, consideration of measurement issues is often limited or restricted. This may arise because either measurement issues regarding certain items have been codified through regulation or, alternatively, reliance is placed on what Eraut (1985, p.120), drawing on the work of Buchmann (1980), calls “communal practitioners concepts”. So, “communal practitioners concepts” are used “while apparently more valid theoretical ideas get confined to ‘storage’ and never get retrieved” (Eraut, 1985, p.120). Another problem associated with theoretical concepts and professionals in practice, is that concepts and theories are often not applicable to the immediate situation, rather their application must be developed. This tension between the validity of theoretical concepts, and their relevance to practice, has contributed to what is widely referred to in lay-man terms, as the ‘theory-practice gap’. The notion of a theory-practice gap may be an ignorant distinction, but it highlights a sense that there is a difference between theoretical knowledge and the application of that knowledge in practice.

The relevance of the second category of propositional knowledge to the practising professional is rarely questioned. This knowledge primarily comes from the professional’s previous experiences and it involves a process of generalisation (Eraut, 1985). However, Eraut (1985, p.121) explains that this generalisation process is poorly understood and as it involves the “semi-conscious patterning of

previous experience” of the professional and often he cannot articulate and explain the generalisation process used. As a result, the validity of this knowledge can be subjugated below that of discipline-based factual knowledge, as it is considered subjective as opposed to objective knowledge.

The relevance to professional practice of the third category of propositional knowledge is generally unquestioned. Knowledge of specific propositions is essential to address particular cases and problems.

(2) Personal knowledge and impressions

Personal knowledge is the stock of knowledge that a person gains through experience. Such experiences may have little to do with formal education but can arise through social interactions or through efforts to achieve a task (Eraut, 1992). Some of the knowledge gained through experience will take the form of propositional knowledge or process knowledge. However, much will remain “prepropositional at the impression level” (Taylor, 1997, p.18). Eraut (1992) refers to this part of knowledge as personal knowledge and he asserts that, while this knowledge contributes to professional action, it is poorly understood. Taylor (1997, p.19) argues that the challenge in professional education is to bring individuals’ personal knowledge to the surface so that the implications of such knowledge, which includes impressions, assumptions and attitudes, can be examined for its influence on professional practice.

(3) Process knowledge

The nature of professional action is a series or combination of processes and the quality of professional performance depends on the manner in which such processes are conducted (Eraut, 1992, p.105). While propositional knowledge will play a part in such processes, there is still, as mentioned previously, a distinction between ‘knowing that’ and ‘knowing how’. Therefore, Eraut (1992, p.105) defines process knowledge as “knowing how to conduct the various processes that contribute to professional action”. Eraut illustrates the importance of such knowledge to professional action by examining five processes: acquiring information; skilled behaviour; deliberative processes; giving information; and controlling one’s own behaviour. Propositional knowledge is vital with regard to

each of these processes. However, 'knowledge how' or process knowledge is essential to transform this into effective action.

The interweaving of the three types of knowledge - propositional, personal and process - is stressed (Eraut, 1992, p.116), and in many ways echoes the inter-relatedness of the elements of competence put forward by Jarvis (1983) and illustrated above in Table 2.1. In more recent work, Eraut (2000) reconfigures his map of professional knowledge to more readily embrace the role of tacit knowledge and to acknowledge how different knowledge types are identified. He contends that, in many respects, professional knowledge can be defined as embracing both codified or public knowledge and personal knowledge. Codified knowledge consists of the propositional knowledge which is subject to quality control by regulators, the research community and professional debate. This knowledge type captures knowledge about skilled behaviour but does not include 'knowledge how'. On the other hand, personal knowledge is encapsulated as the cognitive resource that an individual brings to a situation which allows him/her to think and perform. It embraces personal interpretations of codified knowledge, in addition to procedural, process and experiential knowledge. While codified knowledge is explicit, much personal knowledge is tacit. The development of personal knowledge by professionals, and the ways in which knowledge becomes meaningful in professional practice, is explored by Daley (1999, 2001). She contends that meaning-making is framed by the nature of professional work and that novice and expert professionals use different learning processes. Novice professionals learn through more formal mechanisms compared to expert learners who utilise more informal learning processes (Daley, 1999).

A seminal piece of work concerning professional practice was the development of the idea of the 'reflective practitioner' by Schon (1983). His thesis rails against the 'technical rationality' epistemology of professional practice which he feels has dominated for too long the view and development of professions. 'Technical rationality' views professional practice as the systematic application of previously determined theories, concepts and methods to practical situations. Such an epistemology views professional action as a science, it separates theory and practice and most importantly it assumes a steady, predefined operating

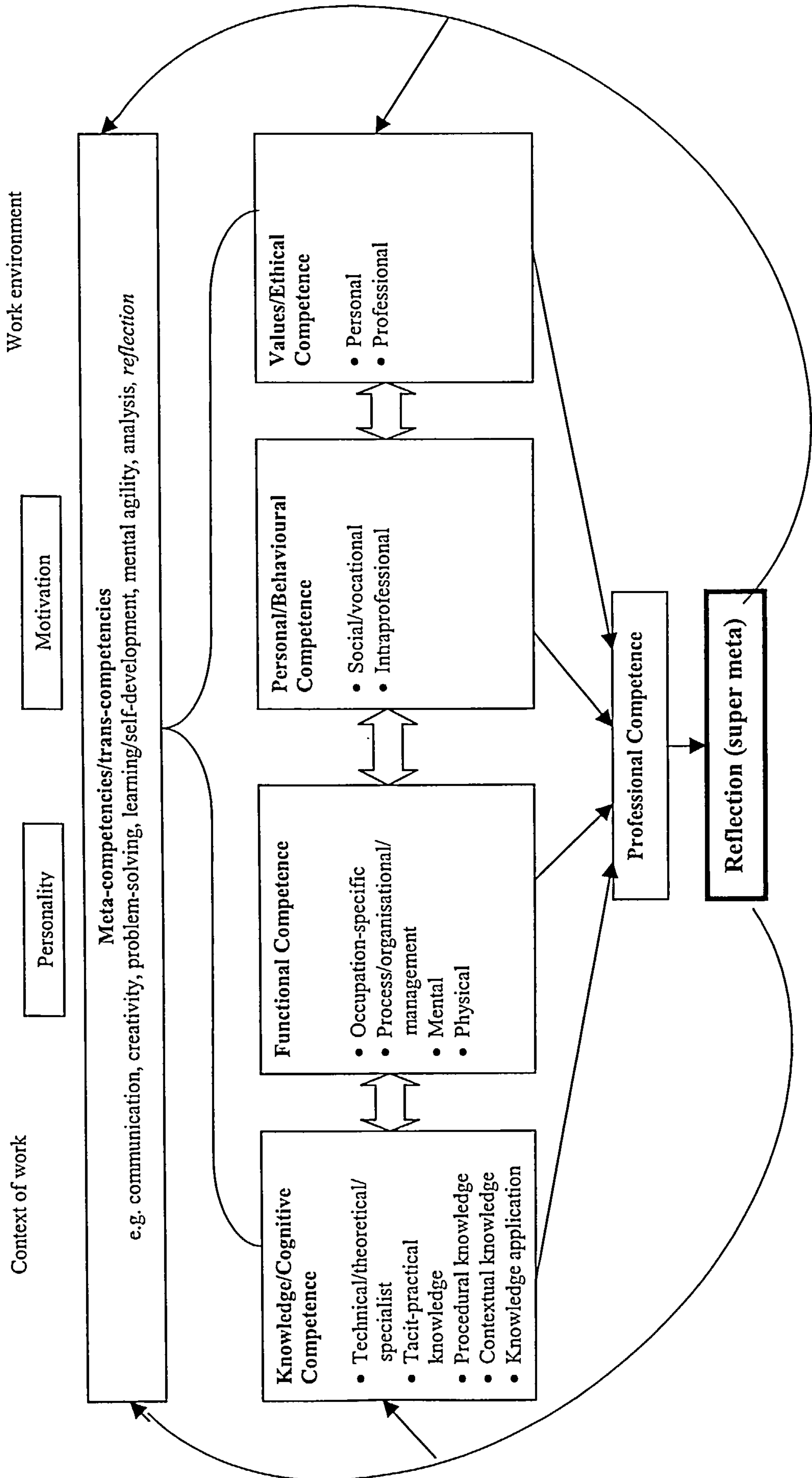
environment. Schon contends that such a conceptualisation of professional practice is divergent from the reality. He argues that a significant part of professional practice revolves around dealing with ill-defined, previously unexperienced problems, which do not lend themselves to solution by the simple application of previously developed theories, concepts or techniques. Instead, Schon considers that professional's practice hinges on reflection on- and in-action. This reflection firstly comes from the tacit knowing in-action which the professional in practice develops. The professional then tries to make sense of action and turns thought back on the understanding that is implicit in his/her practice. He/she brings this understanding to the surface, critically evaluates it, restructures it and embodies it into future action. Schon (1983) proposes that this reflection in-action is central to the 'art' that enables professionals to deal with situations of uncertainty, instability, uniqueness and value conflict.

The conceptualisation of professional practice as knowing and reflecting in action is very different to the many conceptualisations of competent practice as enveloping different types of knowledge, skills and attitudes. However, the perspectives are not necessarily mutually exclusive or competing and they all seem to have something to offer in attempting to gain some understanding of the complex area of professional practice. Schon's approach places a lot of emphasis on the creation of knowledge through reflection which then enables practice. The work of Jarvis, Eraut and others focuses more on the forms of explicit knowledge and skills which can be talked about and classified and which foster competence. These approaches recognise that tacit and personal knowledge contribute to competent practice, but they do not conceptualise and explicate them in the way that the reflective practitioner epistemology does. The centrality of reflection to effective professional practice has been widely accepted and many models of professional competence now explicitly embody reflection as an integral part of enabling knowledge, skills and values associated with professional work. Indeed, recent work by Cheetham and Chivers (1996, 1998) strives to bring together the reflective practitioner and competencies approaches. Their model depicts four core components of competence: knowledge/cognitive competence, functional competence, personal/behavioural competence and values/ethical competence. Each of these core components consists of a number of constituent parts.

Furthermore, overarching the core components are meta-competencies such as, reflection, communication, self-development, creativity, analysis, and problem solving, which develop, enhance and mediate all of the other competencies in the model. All of the elements of the model dynamically interact to produce outcomes and to contribute to the cyclical development of professional competence and practice (Figure 2.2).

The appropriateness of combining the competence approach and the reflective practitioner approach is in some way confirmed by research examining how professionals in six professions actually work (Cheetham and Chivers, 2000). This study found that neither the reflective practitioner nor technical rationality epistemologies individually capture the reality of professional action. It was found that, while reflection is very important in professional practice, reliance on technical specialised knowledge is greater than anticipated by Schon (1983). Thus, Cheetham and Chivers (2000) argue that an epistemology of professional practice needs to combine professional knowledge (different types) with work-based competence, rational and reflective thinking and flexible, innovative practice.

Figure 2.2: Model of professional competence



Source: Cheetam and Chivers (1998) - adapted

The review in this section of some of the principal perspectives of professional competence and practice, has in no way attempted to reconcile the variations in the different approaches. Rather, it aimed to explicate the complexity of professional competence and highlight the resultant challenge to professional educators. Understanding the elements of professional competence and professional knowledge provides a foundation for setting the objectives of professional education programmes⁷. If the overriding objective of professional education is to support the development of existing or prospective members as competent professionals, it is essential that programmes address all elements of competence in an integrated and holistic manner. The setting of objectives for any professional education programme is essential, but it is only the first step in the implementation and operation of an effective programme. The structure of a programme, its content, delivery and assessment, among other things, must all be devised. However, if objectives have been set, these objectives should then drive many of these subsequent issues relating to that programme.

It was said previously that, as learners must be the focus of educational processes, understanding learning is essential for professional educators (Jarvis, 1983, p.82). While there is an ever-increasing body of literature on students' learning within higher education, there is very little research published on the learning of professionals. Indeed, there is “a remarkable ignorance about professional learning” (Eraut 1985, p.118). In terms of the type of learning that would seem appropriate to the development of competence, the researcher considers that professionals need to learn in ways that integrate knowledge, skills and attitudes. They need to be able to relate theoretical issues to practical situations and develop abilities to process and reflect on their experiences. In addition, the capability to adapt to change is essential in today's dynamic environment. It is, therefore,

⁷ Understanding the complexity of professional knowledge and competence will enhance professions in a variety of ways. While this understanding will provide the framework for reviewing professional education as is illustrated, it will also aid the creation and development of the knowledge base. Eraut (1985) challenges the traditional view that the responsibility for knowledge creation rests with the research community. He asserts that, if all elements of professional knowledge are to develop, much of the development must occur in the practice domain, because that is where much of professional knowledge is used and it is hard to separate knowledge use and creation. He recommends that professional education programmes should “enhance the knowledge creation capabilities of individuals and professional communities” (p.131).

critical that professionals do not view the body of professional knowledge as static. They must be able to deal with new situations from their understanding of the theoretical foundations of their profession's knowledge base and from their previous experiences, and they must have the skills and abilities to create new knowledge. To adapt to change in this way professionals must be lifelong learners.

An exploration of the learning approaches and experiences of students within a professional accounting programme forms the centre-piece of this study. Therefore, given the absence of learning research in the domain of the professions, specific examination of the student learning literature from the broader field of higher education is considered in Chapter 3 and its relevance to the field of professional education is examined. However, to complete this chapter on the framework of professional education, the growing criticisms of traditional professional education programmes will be explored.

2.4.2 Forms of professional education

Taylor (1997, pp.4-5) contends that all professional educators face common challenges. Namely, how can prospective professionals and existing professionals be prepared for practice in a rapidly changing world where the rate of knowledge obsolescence is increasing? How can professionals prepare to deal with the increasing overlap of professional boundaries and the increasing requirements for inter-professional practice? How can professional programmes balance the differing demands of stakeholders and, more particularly, how can students be facilitated most effectively to be lifelong learners ready to adapt to changing professional requirements? Pressure will also come from increasing globalisation, with the demand for mutual recognition of qualifications and increased moves to create an international standard of education within professions (Taylor, 1997, p.12; Eraut 1992, p.114). Eraut (1992, p.114) also draws attention to the increasing public scrutiny of self-regulating professions and indeed the accounting profession in Ireland has encountered sustained public scrutiny in the wake of recent political and financial scandals (Hanlon, 1994, p.108; Canning and O'Dwyer, 2001). Therefore, the need for professions to review and evaluate their

education systems is essential to ensure that they appropriately prepare prospective members for the challenges ahead and sustain the competence of current professionals.

Criticism of traditional professional education has been widespread. The principal criticism concerns the failure of pre-qualification professional education programmes to prepare students for practice in the future. The growing recognition that professional education must develop prospective members' understanding of the interweaving of the elements of professional competence, and also must facilitate them to be lifelong learners, has not yet been incorporated into most professional education programmes⁸. Cohen (1985, p.176) contends that, in many respects, professional education "unfits people for professional practice". He considers that professional education has traditionally devoted too much emphasis to the development of the theoretical knowledge base of the profession at the expense of knowledge regarding the skills required for professional practice. Many commentators have attributed the dominance of theoretical knowledge within professional education to the influence of higher education, which values propositional knowledge over other knowledge types (see Taylor, 1997, p.38; Cohen, 1985; Eraut, 1992, pp.98-99; McKenzie et al., 1985). Taylor (1997) explains that this traditional focus by the professions is understandable in the light of the process of professionalisation, which has been dominated by the need to demonstrate mastery and control of a specialised knowledge base. Eraut (1994, p.14) argues that the traditional focus of professions on propositional knowledge stems from the aura of certainty that surrounds that knowledge type. Furthermore, it also signifies that the profession is sufficiently erudite to necessitate lengthy pre-qualification education and training programmes. Jarvis (1983, p.75) contends that the emphasis on theoretical knowledge rather than skills is a reflection of the values that members of many societies place upon the cognitive domain. From the review of the elements of professional education presented in the previous sub-section, it is clear that a programme that prioritises propositional knowledge over other knowledge types,

⁸ In the accounting profession the criticisms of traditional accounting education are widespread and will be discussed in more detail in Chapter 4.

is not preparing prospective members for the reality of practice. Such a focus may also deny the development of the student as a lifelong learner.

Taylor (1997, p.49), drawing on the work of Barnett et al. (1987), suggests that the emphasis on propositional knowledge may vary across professions. Cohen (1985) also identifies this potential for variation across professions:

Generally the more established the profession, the more academically respectable is its training and the less involved in skills development (p.184).

The established professions typically have dual qualification systems (Eraut, 1992, p.99). This involves prospective members completing a degree programme within the higher education system in the first instance. Then the prospective member must pursue an apprenticeship or training with a member of the professional association and, at the same time, complete the pre-qualification examinations of the professional association. This structure of education and training is employed only by traditional professions which have sufficient power and prestige to both maintain an examination system outside the higher education system and to require prospective members to complete lengthy training periods. This system of qualification is used by the legal profession and also by some professional bodies within the accountancy profession⁹. The major disadvantage of this structure is the “acute separation of theory and practice” (Eraut, 1992, p.99). Furthermore, the suitability of the notion of apprenticeship for developing practice knowledge has also been questioned, as it preserves tried and trusted practices and fails to stimulate fresh thinking about issues (Carsberg, 1976, p.10). The concurrent model of professional education consists of periods of professional practice and training built into higher education programmes. This structure is common in professions where professional associations are not as powerful as those described above and cannot sustain an independent examination system. That said, this structure could be considered to best describe pre-qualification education within the medical profession, which is one of the oldest

⁹ All professional accountancy bodies in Ireland and Britain set their own pre-qualification examinations. All student members of ICAI, ICAEW and ICAS must complete a training contract under the supervision of an approved existing member of the relevant body. These professional bodies have a 90%+ graduate intake. The accountancy profession is discussed in detail in Chapter 4.

and most prestigious professions. Indeed, this model of pre-qualification education is very common in the caring professions. The major advantage of this concurrent system is that it facilitates the integration of theory and practice, removing the artificial delineation that exists in the dual qualification system. Some professions do not operate the dual qualification system or the concurrent system but offer prospective members the opportunity to follow pre-qualification professional education courses while involved in full-time employment.

There is now general recognition that professional education should be about “educating for change” (Taylor, 1997, p.88), and that pre-qualification education must develop students as lifelong, independent learners. Professionals are experiencing rapid changes in the environment in which they work, the knowledge base of professions continues to expand and there is a greater need than ever for integration among professions. Professionals must adapt to these changes if they are to remain competent. Indeed, maintaining competence, and distinguishing competence from incompetence are at the heart of the ideology of professions and pre-qualification professional education must help students develop this ideology (Jarvis, 1983, p.34). Developing students’ lifelong learning skills during pre-qualification education does not guarantee that they will continue learning throughout their professional lives but it does stimulate an ethos of independent learning:

No guarantee exists that those who commence practice will remain competent, since knowledge and techniques change rapidly. Nevertheless, those who have the ability to recognise high standards are those whose competency is more likely to be enduring (Jarvis, 1983, p.105).

Thus, students must be encouraged to be critical evaluators and thinkers. Education programmes cannot afford to prioritise factual discipline-based knowledge, which will quickly become obsolete, but rather must develop students’ process and personal knowledge, in addition to propositional knowledge. It is absolutely essential that the education system supports these educational objectives:

If we want practitioners to be reflective, critical and self-directed in the world of practice then we must create conditions through teaching, for them to be reflective, critical and self-directing in the

world of the classroom [Usher and Bryant (1987, p.211) quoted in Taylor (1997, p.10)].

Addressing the way students learn and assisting them to develop as independent learners is essential, as Houle (1980, p.90) states:

... anybody who has been taught only what to learn has been prepared for the present, which will soon be the past: anybody who has been taught how to learn has also been prepared for the future.

McKenzie et al. (1985, p.188) highlight a “disturbing mismatch between educational aims and pedagogic practice” and express concern at the “apparent inability of established professional bodies to understand the importance of the relationship between learning outcomes and learning processes” (p.197). The authors urge professional educators to move from a content-driven, didactic approach to courses. Jarvis (1983, pp.83-93) similarly considers how different forms of facilitating student learning (i.e. lectures versus team work versus conditioning, etc.) in professional education may develop the different aspects of professional competence that are desired.

Assessment methods used within professional education have also been questioned. Assessment is widely recognised to affect the way students learn and it is possible that the type of learning encouraged is not in keeping with the desired objectives (Taylor, 1997, p.108). Most professions use written examinations as a key element in the qualification process, yet there is little evidence that examination success is correlated with practice success (Jarvis, 1983, p.99). Often the perceived objectivity of assessment methods is given priority over suitability, as Cohen (1985, p.180) comments, “there is a tendency to measure what one feels one can measure, ignoring what one should be measuring”. The favoured assessment method of professions, the written examination, suits the assessment of propositional knowledge. However, it offers little opportunity to assess process or personal knowledge. Taylor (1997, p.108) advises that professional education should ensure that assessment is aligned with objectives and desired outcomes. There should be variety in the methods and forms of assessment used in professional education if the professions are serious about developing the varied knowledge types associated with professional

competence. She draws particular attention to the potential of using self and peer assessment to develop critical awareness skills and views such abilities and skills as central to the concept of lifelong learning (p.109).

Within pre-qualification professional education, there is also a need to recognise the limitations of formal education programmes in developing professional competence. As has been explicated, professionals learn much from their practice, not only codified practice knowledge and skills, but also tacit knowledge about practice in action. Thus, pre-qualification education programmes should prepare students to learn in practice by developing their learning skills (Cheetham and Chivers, 2001). By fostering students' critical awareness of tacit knowledge and informal learning, education programmes can prepare students to become competent professionals.

The central theme that can be drawn from this evaluation of traditional professional education is that there is a need for a major review of education within many professions. Professionals of the future must be first and foremost able to adapt to change and, therefore, the traditional focus on discipline-specific propositional knowledge within pre-qualification programmes is inappropriate. Pre-qualification programmes must facilitate the development of students as lifelong learners and so an understanding of the way professional students learn must be developed. Professional education programmes must focus on the students and the process of their learning, and the humanistic element of education must not be overlooked, as Jarvis (1983) highlights repeatedly:

Hence, the education of professionals is also about helping the individual prepare himself for practice as much as it is about giving him the necessary knowledge and skill to embark on his professional career (p.128).

...education is a worthwhile enterprise, not because it is valuable in itself but because it may enrich the life of those who participate in it (p.137).

There is very little literature on student learning in professional education (Eraut, 1985, Taylor, 1997, p.3). Yet for the future development of appropriate and effective professional education programmes an understanding of students'

learning must be developed as “without such knowledge, attempts to plan or evaluate professional education are liable to be crude and misdirected” (Eraut, 1985, p.118). This study aims to develop an understanding of student learning within a professional accounting context and, in so doing, contribute to the education change debate, which particularly concerns professional accounting bodies, higher education institutions and students.

2.5 Summary

This chapter has explored the domain of professional education. It examined briefly the role of professions and positioned professional education within the field of education generally. The objectives of professional education were explored and the concept of professional competence was analysed. Various models of professional competence were considered and the elements of competence - knowledge, skills and attitudes - were studied. In addition, the centrality of reflection in professional practice was highlighted. Finally, traditional forms of professional education were critically appraised.

The chapter concluded with the identification that professional education for the future must develop professionals' ability to adapt to change. This objective requires professional education programmes to focus on students' and members' learning, to understand the ways in which they learn and to develop structures and systems which support them as lifelong, independent learners. This study aims to contribute to the understanding of students' learning in a professional accounting education programme. To develop further an understanding of the key issues which might frame this study the next chapter explores the student learning literature from the higher education field. The subsequent chapter explores the setting of the study in a professional accountancy body in Ireland.

CHAPTER 3

STUDENTS' LEARNING IN HIGHER EDUCATION

- 3.1 Introduction**
- 3.2 Development of research on students' learning**
- 3.3 Students' experiences of learning**
 - 3.3.1 Learning outcomes and learning approaches*
 - 3.3.2 Factors which influence learning approaches*
 - 3.3.3 Models of students' learning in context*
- 3.4 The learning of accounting students**
- 3.5 Summary**

3.1 Introduction

In the previous chapter it was identified that there is a considerable dearth of research in the area of learning within professional education. This study aims to reduce this research deficit by exploring students' learning within the pre-qualification education programme of a professional accountancy body. While there is little student learning research within professional education programmes, learning within higher education has been the subject of increased research activity in the later part of the twentieth century. Even though there are differences between pre-qualification professional education programmes and higher education programmes, they also share many similarities¹, and so the possibility of exploring the extension of some of the student learning concepts and issues explicated in the higher education setting to the professional education environment seems worthwhile in terms of developing the framework for this study. Thus, this chapter examines the development of research on students' learning in higher education and, in particular, explores the strand of research which developed from the group headed by Ference Marton at the University of Gothenburg in the mid-1970s. Key aspects of the student learning process, such as learning approaches, conceptions of learning and the learning environment are examined and the final section of the chapter considers the research conducted to date on students' learning within the discipline of accounting.

¹ In Ireland, many pre-qualification professional programmes share similarities with higher education programmes. Firstly, they generally aim to build the foundation of knowledge required to pursue a career in the area and they are typically undertaken by young, 'traditional' students. The programmes are usually operated with large-group lectures and end of course written examinations. For many professions, such as medicine and law, much if not all of the required pre-qualification education takes place within the higher education system. Within the accounting profession in Ireland and Britain credit is given for higher education study, but the full complement of pre-qualification education cannot be completed in the higher education system. In addition, there is typically scope for students to qualify as professional accountants without completing a higher education degree programme in advance, with the implication being that the professional qualification will be of equal or higher standing or recognition (Robinson, 1983, p.298). Pre-qualification professional education programmes are commonly quite different in nature to post-qualification, continuing education programmes, which can vary in nature, format, delivery and length depending on the needs of members and the professional associations.

3.2 Development of research on students' learning

At the beginning of the 1970s, research in the domain of higher education was in its infancy. Early research in the field, as evidenced by the then newly-established higher education research journals, generally focused on exploring the objectives of higher education and the administration and funding of the sector (Entwistle and Ramsden, 1983, p.2). While there was some attention given to student-related issues, such research habitually aimed to explain student attainment or to describe new teaching methods or developments. Little attention was given to the process of students' learning².

Historically, research on learning had been conducted primarily by psychologists. Marton and Booth (1997, pp. 3-11) review the developmental work on discrete aspects of learning led by many of the world's leading psychologists during the late 1800s and the early 1900s. They describe the work of Ebbinghaus who attempted to explore memory without the distorting impact of previous knowledge, to the extent that nonsense syllables were created and used in his experiments. Pavlov, Watson, Skinner and other behaviourists examined learning from the perspective of how individuals learn through conditioning, whereas Piaget concerned himself with how individuals construct knowledge as a result of their interactions and associations with their environment. Another trend in psychological research on learning has been the study of intelligence and other traits of the individual. Despite well-recognised deficiencies in the concept of a single measure of intelligence, the simplicity of the concept and the ease of measuring it, has led to its wide-scale use within education (Gardner, 1984; Entwistle, 1997, p.8).

Early research on learning within the higher education setting was inclined to draw from the work of the educational psychologists described above. Studies

² It is interesting to draw comparisons here with the development of research concerning professional education and learning. It was noted in Chapter 2 that the research on professional education has primarily focused on objectives of professional education and syllabi issues. There is little research available on learning within professional education, just as in the early 1970s there was little research conducted on students' learning within higher education.

sought to explain the differences between students' performance by using simple input-output models. More specifically, these studies sought to correlate the inputs to the higher education system (students with stable psychological profiles, prior academic achievements, etc.), and the outputs of the system (graduating students with defined degree results), in an attempt to explain variations in levels of performance. However, these studies experienced very little success in that “relatively stable psychological characteristics of students proved to be only weakly related to levels of academic performance” (Entwistle and Ramsden, 1983, p.6). The failure of such studies to adequately explain the varying levels of academic attainment of students in higher education created an impetus to focus on “study processes and on the context, or academic environment, within which students’ learn” (Entwistle and Ramsden, 1983, p.6). It was also recognised that the traditional psychologists' approach to studying learning in laboratory settings with artificial learning materials, was inappropriate for the emerging research agenda (Entwistle, 1997, p.11). The realisation that a new approach to research on learning within higher education would be needed to provide more meaningful output for use by higher education teachers and administrators, occurred independently, but to some extent in parallel, to a number of groups of researchers.

At Lancaster University a six-year study commenced in 1968 to explore, among other things, lecturers' objectives with regard to students’ academic performance in higher education. Lecturers from a wide range of disciplines were asked about their expectations for ‘good’ students and their perceptions of ‘weaker’ students. While there was a huge range of discipline-specific evidence, there was also a common theme in lecturers’ expectations. They primarily expected good students to develop critical thinking, as Entwistle and Ramsden (1983, p.7) comment:

While knowledge and technical skills were expected, students had to be able to use these ideas effectively – to combine and interrelate ideas.

The expression of such an objective by lecturers is not, and was not, surprising. However, the study didn’t specifically examine the extent to which students achieved the lecturers' expectations. It is interesting to note, though, that there was evidence from the Lancaster study that the teaching and assessment practices of

the lecturers concerned contradicted their expressed goal of developing critical thinking among students and hence the need to explore more rigorously the influence of lecturers and other elements in the academic environment on students' learning was identified (Entwistle, 1997, p.6).

In the USA, a study by Perry (1970) attempted to answer, to some extent, one of the questions raised by the Lancaster research – to what extent do students develop intellectually in the manner desired by their lecturers? Through interviewing students during each of their four years in Harvard and Radcliffe, Perry identified nine positions along the dimension of intellectual and ethical development. He contended that, during their time in higher education, students move along the dimension, developing, to varying degrees, from seeing the world in black and white to the position of valuing a personal philosophy of life, whereby they recognise, interrogate and evaluate alternative interpretations of reality. In another prominent US study, Becker et al. (1961) explored how medical students cope with the demands placed on them during their training and education. While the study was ethnographic in nature and primarily concerned the socialisation of new recruits to the medical profession, the students' detailed description of their experiences during education and training exposed interesting data for educationalists and highlighted the potential of using alternative research approaches to explore education issues.

In conjunction with the work of the researchers described above, it was the awakening of researchers in Gothenburg University to new directions in higher education research, and new research approaches, which spearheaded the development of a new paradigm of educational research focusing on students' experience of learning. Ference Marton, leading the Gothenburg research team, attributes much of the early impetus for the subsequent research of the group to the comments of the external examiner of his doctoral thesis. His thesis was presented at the Department of Education and Educational Research at Gothenburg University in the spring of 1970 and it explored verbal reasoning in the tradition of experimental psychology by examining the extent to which study participants learnt the names of famous people during 16 trials (Marton and Booth, 1997, p.14). However,

The external examiner, though finding no fault with the thesis, posed the question of whether or not it told the community anything about how their own students were actually learning, studying, and memorizing the stuff they met in their university courses (Marton and Booth, 1997, p.14).

The impact of this enquiry was to initiate a programme of research that focused on the ways in which students actually learn in real settings, thus attention moved to exploring the quality of students' learning rather than simply the quantity of what was learnt. Indeed, during his doctoral research, Marton had observed not only differences in what subjects learnt, but also different ways of addressing the learning task (Marton and Booth, 1997, p.15). Hence, examining qualitatively different approaches to learning and different learning outcomes became a central theme in the Gothenburg research. Another distinguishing feature of the emerging research programme was its emphasis on exploring the issues mentioned from the student perspective. The Gothenburg researchers considered that, by developing an understanding of the variation in the ways students experienced learning, they would be better able to understand the higher education process and so would be in a better position to improve its effectiveness³ (Marton and Booth, 1997, p.13; Entwistle, 1997, p.3).

Not only did the aims of the research pursued by the Gothenburg group vary from prior studies, the research approach adopted was also different. On the whole, the research methods previously adopted by psychologists, as briefly described above, viewed learning as independent of context. In addition, it was considered that individual and social constructivism⁴ both lacked explanatory power due to the separation of “inner” aspects of the learner (mental acts) and the “outer world” (acts and behaviour) (Marton and Booth, 1997, p.10). The Gothenburg team did not wish to separate the inner aspects of the person from the outer world:

³ While the Gothenburg team were initiating their research programme, other prominent researchers were beginning to expand the boundaries of the student learning research field. For example, Pask (1976) explored pathologies of learning and Biggs (1987) investigated students' learning processes, in terms of their motives and strategies.

⁴ Both individual constructivism and social constructivism are forms of cognitivism which was the dominant paradigm in psychological and educational research for about three decades from the late 1950s (Marton and Booth, 1997, p.11).

One should not resort to hypothetical mental structures divorced from the world, and we have no intention of doing so. Nor should one resort to the social, cultural world as seen by the researcher only. People live in a world which they – and not only the researchers – experience. They are affected by what affects *them*, and not by what affects the researchers. What this boils down to is taking the experiences of people seriously and exploring the physical, the social, and the cultural world they experience (Marton and Booth, 1997, p.13).

Thus, the Gothenburg group did not divorce the inner and outer aspects affecting the learner. They did not seek one aspect to explain the other. Rather, they viewed the world of the learner as an integrated whole:

There is not a real world “out there” and a subjective world “in here”. The world is not constructed by the learner, nor is it imposed on her; it is *constituted* as an internal relation between them (Marton and Booth, 1997, p.13).

To gain such an understanding of the experience of others, Marton and his colleagues contend that the researcher must examine the expression of that experience in the words and actions of the learner:

We have to ask learners what their experiences are like, watch what they do, observe what they learn and what makes them learn, analyse what learning is for them (Marton and Booth, 1997, p.16).

Therefore, the Gothenburg research was primarily conducted by means of analysing interviews with students who described their experiences of addressing learning tasks. The experiences described were analysed into categories of description which captured the qualitative variation in those experiences. This research method became known as phenomenography and is defined by Marton (1994, p.4424) as:

...the empirical study of the limited number of qualitatively different ways in which various phenomena in, and aspects of, the world around us are experienced, conceptualised, understood, perceived and apprehended.

While alternative frameworks for understanding learning continue to exist, such as the cognitive paradigm (Entwistle, 1997, p.3), the work of Marton and his colleagues represents a key element of the framework for understanding students' learning for the purposes this study. Thus the early work of the Gothenburg team,

and that of researchers elsewhere who also explored learning from the students' perspective, is discussed in the following section.

3.3 Students' experiences of learning

3.3.1 *Learning outcomes and learning approaches*

Within the student experience of learning paradigm, learning is conceived as the changing of the learner's conceptualisation of reality (Ramsden, 1992, p.4). One of the first studies conducted by Marton and his colleagues within this paradigm examined the qualitative differences in learning outcomes achieved by students when addressing a specific learning task (Marton and Saljo, 1976a, 1976b). In that study, forty students were given three chapters to read from an education textbook which explored the effects of education on individuals and society. After reading the text the students were asked questions about it. The objective of the study was to reveal how the text appeared to the students and what they understood it to be about. On analysing the students' answers, the researchers recognised that there was no uniform understanding and, importantly, neither were there forty different understandings, as Marton and Booth, (1997, p.16) comment:

Focusing on the meaning revealed by the answers, rather than on the words used to express them, led to the discovery of four distinctively different ways of making sense of the main argument of the text. At one extreme was a global appreciation of the overall effects of educational measures, supported by detail and example, bringing out the principles involved. At the other extreme was a narrow focus on the title of the text as such.

Thus, four different categories of learning outcomes, as shown in Table 3.1, were identified. In terms of distinguishing the categories, the descriptions falling into Category A delineated a full understanding of the author's intended meaning of the text, while those in Category B embraced a partial understanding of the underlying meaning. Responses in Category C had not captured the meaning of the author's arguments, indeed, in many instances the meaning was misconstrued. However, Category C responses demonstrated a detailed, but disjointed, memory

of elements of the text. Category D responses indicated a lack of understanding of the text and poor recall of the facts as students typically focused on the words and phrases themselves. The four categories of learning outcomes can be viewed as a hierarchy, with logical relationships between the categories. Category A responses demonstrate the highest level of understanding, compared to Category D responses which show the lowest level of understanding, but each category can be said to represent a different degree of partial understanding of the whole (Marton and Booth, 1997, p.19).

Table 3.1 Categorising the learning outcome

A.	Conclusion orientated, detailed
	The student summarizes the author’s main argument, shows how evidence is used to support the argument, and explains the thoughts and reflections used to reach personal understanding of that argument.
B.	Conclusion orientated, mentioning
	Again there is an adequate summary of the main argument, but the use of evidence or personal experience to support that argument is not made clear.
C.	Description, detailed
	The student gives an adequate list of the main points presented in the article, but fails to show how these are developed into an argument.
D.	Description, mentioning
	A few isolated points are made, some relevant, some irrelevant. At the bottom end of this category an impression of confusion and misunderstanding is given by the student’s comments.

Source: Entwistle and Ramsden (1983, p.16)

In another study, Marton and Saljo (1976a, 1976b) confirmed these categories of learning outcomes and also explored students’ experiences of the learning task. This second study aimed to examine the extent to which the variation in learning outcomes achieved might be related to the ways students set about the assigned

learning task. By examining students' descriptions of how they set about the task, their intentions and their learning activities, it was found that there were marked qualitative differences in the learning processes of the students. Ultimately, two distinctive approaches to learning were identified (Marton and Saljo, 1976a, 1976b). In the first instance, some students described focusing on the meaning of the text, they sought to understand the arguments of the author, and they examined critically the evidence presented and the appropriateness of the conclusions drawn. In essence, these students engaged with the learning task and internalised the learning process. This approach to a learning task became known as a deep approach⁵. The other distinctive approach to learning was a surface approach. Students describing this approach focused on the text itself rather than its meaning and they viewed the task as an external imposition. They attempted to rote-learn discrete elements of the text in an unrelated way, without personal involvement or reflection. Marton and Booth (1997, p.22) aptly summarise the difference between the two approaches:

The essential distinction between them is that a surface approach focuses on what can be called the *sign* (here the text itself), whereas a deep approach focuses on that which is *signified* (here the meaning of the text).

In later work, Ramsden identified a third approach to learning which he labelled a strategic approach (Ramsden, 1979). This approach to a task is characterised by a concern to achieve the highest possible marks and the interaction with the task and the specific activities embraced are influenced by this motivation. The defining features of the three distinctive learning approaches are set out in Table 3.2.

⁵ In the original research Marton and Saljo described the two distinct ways students set about the learning task as deep-level and surface-level processing (1976a). However, it was later concluded that as the two categories of 'processing' captured both a difference in intention and process, the term 'processing' was too narrow a descriptor and the term 'approach' was more appropriate (Entwistle, Hanley and Hounsell, 1979). Marton and Saljo agreed with the appropriateness of the term (Marton and Booth, 1997, p.47).

Table 3.2 Defining features of approaches to learning

Deep approach

- Intention to understand
- Vigorous interaction with content
- Relate new ideas to previous knowledge
- Relate concepts to everyday experience
- Relate evidence to conclusions
- Examine the logic of the argument

Surface approach

- Intention to complete task requirements
- Memorize information needed for assessments
- Failure to distinguish principles from examples
- Treat task as an external imposition
- Focus on discrete elements without integration
- Unreflectiveness about purpose or strategies

Strategic approach

- Intention to obtain highest possible grades
- Organize time and distribute effort to greatest effect
- Ensure conditions and materials for studying are appropriate
- Use previous exam papers to predict questions
- Be alert to cues about marking schemes

Source: Entwistle, 1987, p.16

One of the most important aspects of the Marton and Saljo studies was the relationship identified between the distinctive approaches to learning and the various learning outcomes identified. It was found that a deep approach to learning was associated with conclusion orientated learning outcomes and thus a high level of understanding, whereas a surface learning approach was associated with description orientated outcomes and consequently lower levels of understanding (Marton and Saljo, 1976a, 1976b). Therefore, it would seem appropriate that, if a high level of understanding of a discipline is desirable among students, then it is important to encourage them to adopt a deep approach to learning, as Entwistle and Entwistle (1991, p.208) observe:

It appears that academic staff in higher education expect students to develop conceptual understanding of their discipline and to apply critical analysis to the information and ideas they encounter. This would require students to adopt a deep approach in their learning.

In another part of the programme of research in Gothenburg, Svensson re-examined the data of Marton and Saljo. Unlike Marton and Saljo, who had examined the learning process and then considered the relationships with outcomes, Svensson retained both elements of process and outcome in his initial analysis (Marton and Booth, 1997, p.47). He described the qualitative differences in approach to be holistic versus atomistic, which was found to be a similar dichotomy to the deep/surface categorisation, as Marton and Booth (1997) comment:

... the two distinct research strategies produced one dichotomy (deep/surface) which emphasised *referential* aspects of students' experiences – their search for meaning or not, while the other (holistic/atomistic) concerned *organisational* aspects – the way in which they organized the informational content of the article in their reading (p.47).

Thus, a holistic approach is characterised by students who attempt to critically examine the evidence presented and the conclusions reached and they relate the message to a wider context as they seek to understand the overall meaning of what they are reading (Svensson, 1977). An atomistic approach, however, is characterised by focusing on the text itself, attempting to memorise parts; there is little attempt to look at the text in its entirety or to look for its message. Svensson (1977) contends that, to achieve a deep level of understanding, a deep/holistic approach to studying is necessary. By the nature of the activities of a surface/atomistic approach a deep understanding cannot be achieved. Svensson also found that the distinctive approaches to learning were evident in the normal study activities of students as well as in the experiments. Furthermore, he identified that there was a relationship between the approach taken and examination performance, though it was an indirect relationship, in that those adopting a deep/holistic approach were more likely to adopt study habits that were directly related with examination success (Svensson, 1977, Marton and Booth, 1997, p.49).

It is important to clarify at this point that the approach to learning concept does not describe a characteristic of a student. It is not inside him/her but rather it describes how he/she sets about a specific learning task; it is a dynamic concept (Ramsden, 1987). The approach adopted by a student in a specific situation is

determined by his perception of the learning task, which is influenced by a whole range of things, from the form and content of task, to his/her previous experiences of the learning (Marton and Saljo, 1976a, 1976b; Entwistle and Ramsden, 1983, p.2; Prosser and Trigwell, 1999, p.4), as Laurillard, (1997, p.136) comments:

... the operational outcome of this combination of judgements and perceptions is an intention either to understand or to memorise, and thereby to use either a deep or surface approach.

Additionally, it must be recognised that the qualitative phenomenographic research of the Gothenburg team and other researchers formed the basis for the development of a variety of instruments to facilitate the measurement of the learning approaches of large groups. Drawing on the Gothenburg research, the *Approaches to Studying Inventory* (ASI)⁶ developed by Entwistle and his colleagues (see Entwistle and Ramsden, 1983, pp. 35-55) is perhaps the most widely used questionnaire on student learning in higher education (Richardson, 1994). Other instruments have been developed from the various research strands within the student experience of learning paradigm. In Australia, the Study Process Questionnaire of Biggs (1987) is very popular and it captures learning approaches in terms of students' motives and strategies. Other inventories emerging from alternative research perspectives include the Inventory of Learning Processes (ILP) (Schmeck et al., 1977) and the Inventory of Learning Styles (ILS) (Vermunt and van Rijswijk, 1988).

The concept of learning approaches, explicated by the work of Marton and others, has been identified as one of the most influential to emerge from higher education in recent times (Ramsden, 1992, p.39). The principal reason for the importance attached to the learning approach concept is the relationship that has been identified between learning approaches and learning outcomes, as described above. The research questions and approach of Marton and Saljo were extended by many researchers to other learning tasks. For example, Hounsell (1997, pp. 106-125) investigates students' conceptions of writing essays and essay writing procedures; Laurillard (1997, pp. 126-144) explores students' approaches to problem-solving; and Entwistle and Entwistle (1991) examine students'

⁶ The latest version of the ASI is the Approaches and Studies Skills Inventory for Students (ASSIST) (ASSIST, 1997).

experience of understanding when revising for examinations. Having identified distinctive learning approaches, with one being clearly preferable in terms of the learning outcome achieved⁷, the focus of many research studies turned to investigating what influenced the approaches adopted by students and whether those approaches could be changed.

3.3.2 Factors which influence learning approaches

In their seminal work, Marton and Saljo (1976b) contend that it appears to be easier for lecturers to induce a surface approach rather than a deep approach to learning. Consequently, Fransson (1977), another of the Gothenburg team, examined how levels of interest and anxiety affected students' approaches to learning. He identified that, when a student feels threatened or under pressure to conform to course or assessment requirements, he/she is less likely to adopt a deep approach to learning. Also, a perceived lack of relevance of material appears to encourage a surface learning approach. Thus, from an early point in the development of this research paradigm, it was recognised that educators can influence approaches to learning, through the way they shape students' perceptions of workload, relevance of course material and expectations regarding assessment.

However, the range of factors which influence students' approaches to learning is more extensive than simply course-related issues controllable by the lecturer. The learning approach adopted by a student is highly sensitive to the student's conception of learning, his/her prior learning experiences and his/her perceptions of the learning environment (Prosser and Trigwell, 1999, p.4). Therefore, to understand the student's perspective of learning in any context, it is necessary to briefly explore these issues, as Ramsden (1985, p.65) states:

⁷ To develop high levels of understanding a deep approach to learning is generally perceived to be preferable. However, Lucas (2000) cautions against assuming that surface approaches to learning are inferior in all cases. She contends that some subjects such as, science, engineering and accounting, may be associated with a degree of rote memorisation. Also, some research has found that rote memorisation was used by Asian students as part of learning strategy to develop a deep understanding (Marton and Booth, 1997, p.39; Richardson, 2000, p.27).

Tinkering with what are assumed to be necessary skills without considering the learning context and the meaning of learning to the students is worse than useless.

Conceptions of learning

A conception of learning captures the way in which a person views learning, in other words, what learning means to him/her. In early work in the area, Dahlgren and Marton (1978) identified two different conceptions of learning. The first conception views learning as something that happens to the person. It conceives learning as a passive activity involving the transmission of unrelated 'bits of knowledge'. The second conception captures an active view of learning, which involves changing one's conception of reality in some way. Saljo (1979), developing this work further, explored the qualitative variation in the ways in which students described their conceptions of learning and determined five categories of description to capture the variation identified. These five categories of description, which are set out in Table 3.3 (conceptions A-E), have subsequently been confirmed by a number of researchers, notably van Rossum and Schenk (1984). In addition, van Rossum et al. (1985) explored the relationships between students' conceptions of learning and other aspects of the learning situation, while Marton et al. (1993) more fully described the five conceptions and identified a sixth category of description.

Table 3.3 Conceptions of learning

Learning as ...
A. The increase in knowledge
B. Memorising
C. Acquisition of facts, procedures, etc., which can be retained and/or used in practice
D. Abstraction of meaning
E. An interpretative process aimed at understanding reality
F: Changing as a person

Source: van Rossum and Schenk (1984) and Marton et al., (1993)

The elements or characteristics of the various conceptions are outlined below, but at the outset it is important to recognise that the conceptions differ from each

other in a variety of ways (Marton et al., 1993). Firstly, each conception embraces a 'what' and a 'how' element and both elements contain a referential and a structural aspect. The referential aspect relates to the global meaning of the phenomenon, whereas the structural aspect relates to the way in which the phenomenon, and its component parts, are delimited and related to each other, both from the perspective of its internal and external horizons (Marton et al., 1993). Thus, the way in which the individual conceptions vary are quite extensive. However, students' descriptions of their conceptions of learning rarely include all aspects, rather they will include fragments of a particular conception.

Conception A - Learning as the increase in knowledge

Students who describe this conception have a passive view of learning and exhibit little personal involvement in the learning process. There is commonly a vagueness associated with this conception and the nature of learning is taken for granted (Saljo, 1979). Conceptions of this type typically identify learning as the acquisition and storing of discrete pieces of information. Thus, there is a quantitative orientation to this conception and also a temporal aspect, whereby the student picks up knowledge and thus knows more now than previously (Marton et al., 1993). Students holding this conception have a preference for teachers who present clear factual information. Additionally, such students are detail oriented in their study activities (van Rossum et al., 1985).

Conception B - Learning as memorising

This conception shares many characteristics with Conception A, in that it has a quantitative flavour. Furthermore, it views learning as something which is external to the individual, and thus there is a lack of personal involvement or action associated with learning. The variation between the two conceptions relates to the fact that Conception B embraces the memorisation of acquired knowledge and its reproduction in specific occasions, typically, in examinations (Marton et al., 1993). Van Rossum et al. (1985) determined that students with this conception have similar teaching and study preferences to those describing Conception A.

Conception C - Learning as the acquisition of facts, procedures, etc., which can be retained and/or used in practice

The emphasis in this conception is on the application of knowledge acquired. Students with this conception still view learning in passive terms and, as with Conceptions A and B, they conceive it to be something that is external to themselves (Ramsden, 1992, p.26). While Conception B embraced an application phase to learning, in the reproduction of knowledge in examinations, this conception recognises that acquired knowledge may need to be tailored or adjusted in order to be applied. In addition, this conception extends the application frame for acquired knowledge beyond the educational setting to work and life situations (Marton et al., 1993). It has been found that students holding this conception favour organised teaching approaches and examination questions which distinguish between reproduction of knowledge and the application of knowledge (van Rossum et al., 1985).

Conception D - Learning as abstraction of meaning

This conception views learning as the gaining of understanding, which clearly distinguishes it from Conceptions A-C, which did not feature seeking meaning in any form. Another change evidenced in this conception is that it embraces a more active view of learning; students are involved in learning and construct their own meaning (Marton and Booth, 1997, p37). Students with this conception do not favour factual type lectures. They want to participate in lectures and also want a certain amount of independence in their learning to abstract meaning and develop their own understanding, though primarily for educational purposes. These students have a more holistic study approach and will actively seek interconnections across subjects and with their prior learning (van Rossum et al., 1985).

Conception E - Learning as an interpretative process aimed at understanding reality.

This conception centres on understanding in much the same way as Conception E, but rather than viewing learning as the development of understanding alone, this conception involves the learner understanding different perspectives and forming his/her own view. In addition, a student holding this conception usually views

learning as being located in every aspect of his/her life rather than being in any way confined to formal educational situations (Marton et al., 1993).

Conception F- Learning as changing as a person

Marton et al. (1993) identified this sixth conception, which they considered builds on Conception E by adding an existential aspect to learning. Students with this conception describe how their development of seeing phenomena in new ways and seeing the world differently, results in their changing as people. This is the most complex conceptualisation of learning identified to date.

It is clear that there is considerable variation in the conceptions of learning which have been identified. In many ways, the different conceptions reflect a hierarchy from the simplest conception, which views learning as the acquisition of knowledge, to that of learning involving changing as a person. However, while in any group or learning situation some students will hold higher conceptions of learning than others, students do not necessarily hold the same conception in every situation or over time. Van Rossum et al., (1985, pp. 636-637) concluded that learning conceptions are not stable characteristics of people, rather, they "show the *development* of the student from novice to expert in learning (see van Rossum and Hamer, 1985); a development that moreover is strongly contextually determined". A developmental trend was also reported in the conceptions of students interviewed repeatedly over a number of years in the Marton et al. (1993) study, though the authors would not speculate about this characteristic with any other students or in any other context.

In terms of the links between conceptions of learning and other aspects of the learning process, it is important to note the clear demarcation between Conceptions A-C and Conceptions D-F. Conceptions A-C can be grouped as reproductive oriented conceptions as opposed to Conceptions D-F which have the construction of meaning at their core. Marton and Booth (1997, p.38) suggest that this distinction is most revealing as it answers the question, 'from where do different approaches to learning tasks spring?' They contend that those who view learning primarily as reproducing limit themselves to the tasks of learning imposed by a study situation, whereas those who conceive learning in the

constructive terms of seeking meaning look beyond the tasks themselves to the world that the tasks reveal. They conclude that "this is directly analogous to the difference between surface and deep *approaches* to learning: the former focusing on the tasks themselves and the latter going beyond the tasks to what the tasks signify" (p.38). Indeed, van Rossum and Schenk (1984) empirically found that students who held reproductive conceptions of learning adopted surface approaches to learning, whereas those who revealed constructive conceptions adopted deep approaches to learning.

Prior learning experiences

As well as holding a conception of learning, a student brings all his/her prior learning experiences to every new learning situation and those experiences vary for each individual student. There can be variation in prior conceptual understanding of the subject matter, ways of understanding the nature of that subject matter, and prior experiences of, and approaches to, studying the subject matter (Prosser and Trigwell, 1999, p.30). For a student tackling a learning task in higher education, these prior experiences embrace not only experiences regarding other learning tasks in higher education, but also those encountered within the school system or other learning environments. The culmination of these experiences influences the student's perception of the new learning task and his/her approach to that task.

Prosser and Trigwell (1999, p.31) contend that a student's prior conceptual understanding is not a stable structure that he/she maintains, rather it is relational, in that when a student faces a new learning situation his/her prior understanding may be evoked. In studying first year physics students' understanding of the phenomenon of electricity, Prosser et al. (1996) identified that those students who had well-developed prior conceptual understanding were likely to interpret the learning context as supporting a deep approach to learning about the subject and emerged with well-developed post understanding. Those with less-developed prior conceptual understanding were found to be more receptive to those aspects in the learning context which afforded a surface approach and were more likely to emerge with poorly-developed understanding. Dahlgren (1978), in a study of

economics students, found qualitative variation in their understanding of key concepts. He also reported that those who commenced their study of economics with poor conceptual understanding of key phenomena, often completed their courses without their understanding of those phenomena changing significantly. In many respects, a student's failure to develop conceptual understanding in a new learning situation, when he/she had misconceptions regarding key phenomena or the subject matter itself, is not unexpected. A poor basic understanding of concepts and issues is likely to frustrate the student's efforts to understand new and perhaps more advanced material (Ramsden, 1992, p.65).

Prior experiences of learning a subject also involved students adopting certain learning approaches to tasks. When those students face learning tasks in a new environment, their interpretation of the task requirements and learning context brings their awareness of their prior experiences to the foreground and influences their approaches to learning in the new situation. Furthermore, students' approaches to studying in higher education have been found to be influenced by their learning approaches when at school, creating a particular need to be mindful of the effect of learning environments when students face transition (Ramsden, 1992, p.67).

It is important for educators to understand the variation in the prior experiences of any student group. They must recognise that various elements in the current learning environment may evoke the prior experiences of the students. Additionally, educators need to be aware that commonly students bring from their prior learning experiences misconceptions regarding the subject matter. If educators do not actively seek to challenge students' conceptions and to ultimately change those conceptions, students will generally continue to have poor understanding of key phenomena.

The learning context

It has been repeatedly stressed in this chapter that students' approaches to learning are not intrinsic characteristics, but are relational. A student's approach to a learning task results from, among other things, his/her conception of learning,

his/her perception of the task requirement and the extent to which prior experiences are evoked by the learning situation. In addition, aspects of the learning environment have been shown to affect a student's perceptions of a learning task and, as explicated briefly below, teaching, assessment and syllabus issues have been found to be particularly influential.

Following on from the work of Fransson (1977), Ramsden (1979) reported that students' perceptions of teaching and assessment demands are related to their approaches to learning and the subsequent learning outcomes. When students perceive their workload to be fair, course goals to be clear and unambiguous, and they consider that they had a certain freedom in their learning, they are more likely to adopt a deep approach to learning (Entwistle and Ramsden, 1983). Conversely, excessive workload, a lack of independence and unclear goals are related to students adopting a surface approach to learning. Additionally, assessment has been recognised as one of the most critical of all influences on student learning, as Rowntree (1977, p.10) comments, "if we wish to discover the truth about an educational system, we must look into its assessment procedures". Students adapt their learning approaches to their perception of the reality of the assessment demands. If they consider that assessment requires the repetition of facts they are likely to engage in surface learning activities, such as rote-memorisation, at the expense of seeking understanding. Research has shown that students who adopt a surface approach to learning in response to assessment demands are aware that they will reach poorer quality learning outcomes than might otherwise be achieved (Ramsden, 1992, p.72).

Drawing on prior instruments and other studies, Ramsden (1991) designed the Course Experience Questionnaire (CEQ) to capture students' perceptions of many of the previously identified context variables, and to provide a global measure of the teaching quality of courses. Many studies have shown that students' perceptions, as measured by the CEQ, are related to their approaches to learning. For example, Ramsden et al. (1997), in a large scale study of 8,000 students, reported that a deep approach to learning was clearly associated with perceptions of high teaching quality, clear goals and the provision of a certain degree of

freedom in learning. Additionally, a surface approach to learning was associated with heavy workloads and assessment that appeared to reward rote-learning.

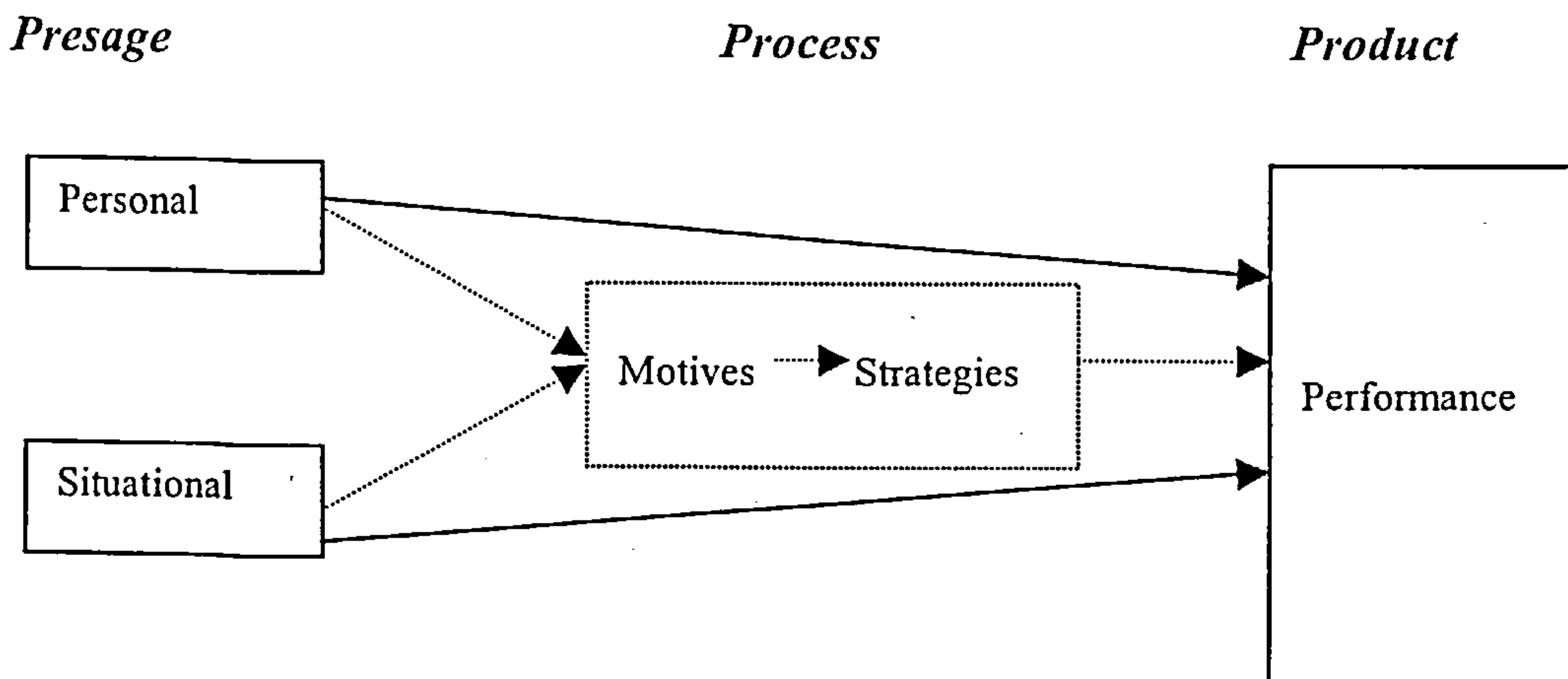
Developing awareness among educators of the influence of their teaching and assessment strategies on students' learning is essential to the design of learning environments which support or evoke deep approaches to learning. It is critical to appropriately align curriculum, teaching and assessment to achieve the desired learning outcomes (Biggs, 1999, pp.25-29). However, it is important to recognise that it is students' perception of the environment which is the defining feature. Educators may contend that a learning situation fosters deep approaches to learning, but students may not perceive it to be so. Thus, there is a growing need for research which explores students' perspectives on learning in particular contexts.

3.3.3 Models of students' learning in context

Before proceeding to examine the research into students' learning conducted within the accounting discipline in higher education, it is useful to briefly examine some models of students' learning. These models draw together the various components of students' learning developed in the literature and so aid the coherent integration of the concepts and issues explored to date in this chapter.

Biggs (1987) developed a model of students' learning which emphasises the range of factors which influence students' approaches to learning and the learning outcomes. His model is designated by three P's – 'Presage', 'Process' and 'Product' (see Figure 3.1).

Figure 3.1 Biggs' general model of students' learning



Source: Adapted from Biggs (1987, p.9)

'Presage' represents all those factors which impress on, and influence, the student's learning process and which may exist before the student enters the learning situation (Biggs, 1987, p.10). The presage factors are of two kinds: personal factors, e.g. prior learning experiences, cognitive abilities, values, attitude, and personal circumstances, whereas situational factors embrace the institutional aspects of the learning context, e.g. syllabus, teaching and assessment.

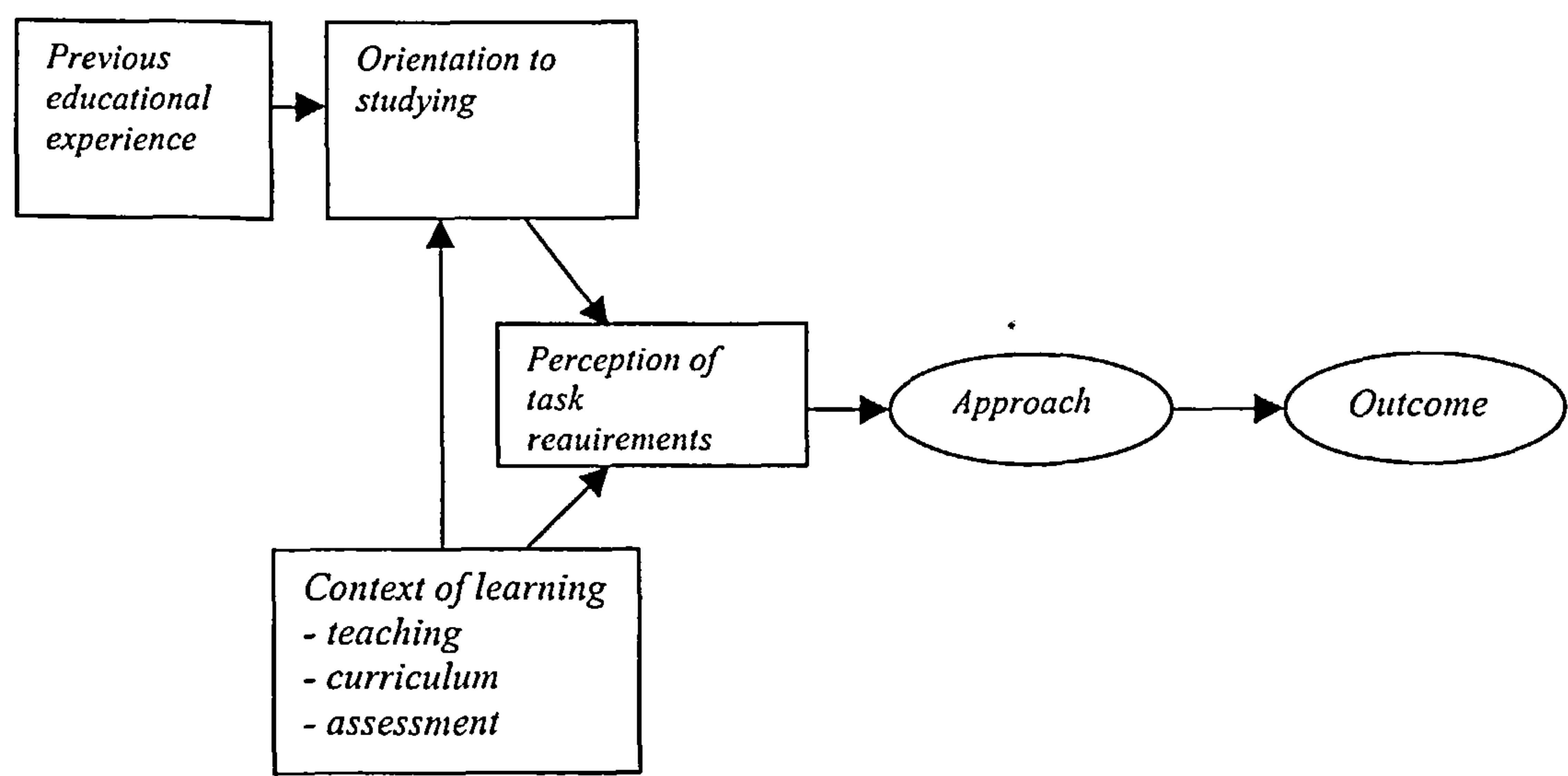
The 'Process' element of the model embraces students' motives and strategies for dealing with learning tasks. Each motive-strategy combination defines a distinct approach to learning and Biggs identified three such approaches – deep, surface and achieving (Biggs, 1987, p.10).

The 'Product' aspect of Biggs' model represents the learning outcome, that is, what is achieved or demonstrated on completion of the learning task. Interestingly, Biggs views the learning outcome as not only embracing academic performance in terms of understanding achieved and grades obtained, but also as enveloping personal outcomes such as satisfaction and changes in self-conceptions.

Ramsden's (1992, p.83) model of students' learning in context (see Figure 3.2) draws heavily from the three P's model of Biggs and shows that the learning outcome is influenced by the learning approach. The model contends that the learning approach is affected by a student's perception of the learning task which is, in turn, affected by the learning context (an open set of factors including teaching, curriculum, and assessment factors) and the student's general orientation to study. Orientations to study are influenced by prior educational experience and the learning context. This model effectively conveys the extent to which students' perceptions of the learning task are the linchpin in the learning process. Students evaluate the learning situation and, influenced by their prior experiences and orientations to learning, they formulate their perceptions of the task culminating in their approach to that task, as Laurillard (1997, p.144) comments:

Students take a largely rational approach to learning. They consider what is required of them, they decide on priorities, and they act accordingly.

Figure 3.2: Student learning in context

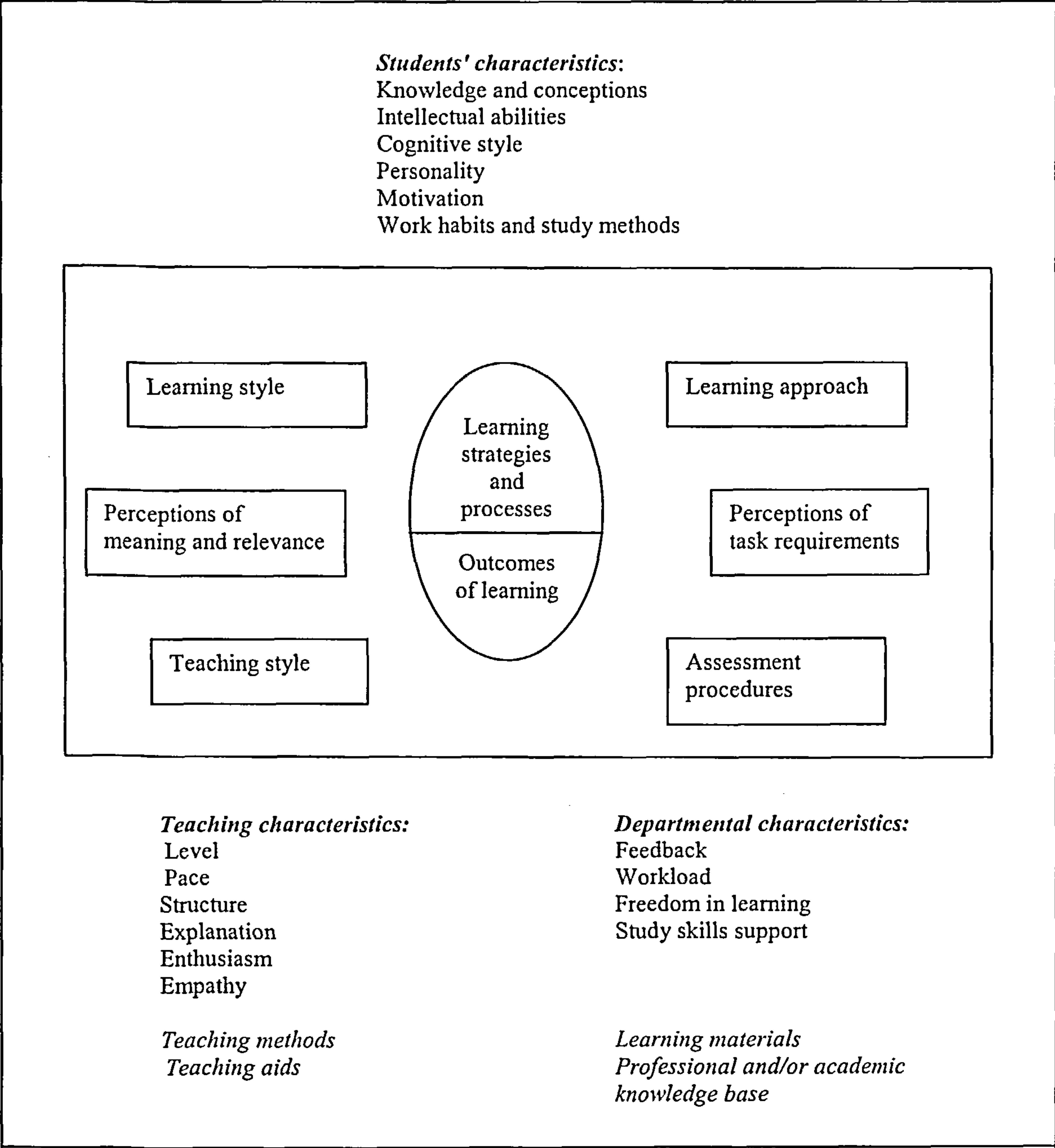


Source: Ramsden, 1992, p.83

Entwistle's (1987) heuristic model of the teaching-learning process draws attention to the wide range of student, teaching and departmental characteristics

which interact to affect the quality of students' learning. The model does not attempt to articulate the relationships between the various components identified, rather it aims to guide the direction of future research and to explicate the factors which educators need to consider when changing aspects of the learning context.

Figure 3.3: Heuristic model of the teaching-learning process



Source: Adapted from Entwistle (1987, p.23)

There is considerable overlap in the three models presented. They all emanate from student-focused learning research which emphasises the complexity of learning and the range of factors which impinge on the quality of that learning. In the past, before the development of research exploring the student perspective of learning, there was a tendency to attribute the blame for low levels of understanding and poor academic performance to the students themselves (Entwistle and Ramsden 1983, p.2). However, the students' experience of learning research identifies considerably more factors which influence the ways in which students learn and hence the learning outcomes achieved. These models in no way eliminate the contribution of students' characteristics and student-centred issues to the quality of their learning. Rather, they recognise that a broader set of factors affect learning, which in many instances can be influenced by educators. Thus, the models provide educators with a framework to understand students' learning. Through exploring the factors that impact on learning, educators can consider strategies by which they can aim to improve the quality of students' learning. The following section explores the application of the students' learning research in the domain of accounting education.

3.4 The learning of accounting students

The term 'accounting education' captures the range of accounting programmes and courses offered by any educational establishment. It embraces accounting courses offered within the school system, within further and higher education and within the professional environment. Similarly, 'accounting education' envelops students who take only a single course in accounting as part of their school, further education or higher education curriculum, as well as those who pursue specialist study in the discipline, either in higher education and/or within the accounting profession. While the area of accounting education research may still be considered to be in an early phase of development (Rebele et al. 1998a, 1998b), there is an increasing body of literature available in the area, which is evidenced by the number of specific research journals which have emerged in the last twenty

years.⁸ Within the emerging accounting education literature there is much reporting of the application of new teaching and assessment methods, the use of IT and programme development issues in the accounting discipline in higher education. Research focusing on understanding students' learning has emerged at a slower pace, despite the fact that many researchers have identified the need to explore students' approaches to learning accounting (Lucas, 1996; Beattie et al. 1997; Sharma, 1997), as Beattie et al., (1997, p.10) comment:

The design of intervention strategies which improve teaching and learning in accounting education will require a sound understanding of the complex and contingent nature of learning approaches.

The need for such research comes from the accounting education change debate, which to date has been vociferous in identifying the problems of existing accounting programmes. The development of the education change debate will be explored in more detail in Chapter 4 but, in essence, the debate has highlighted that accounting education has failed to keep pace with the changes in the profession and the business environment. Accounting education in many instances today is similar in nature to that in existence thirty or forty years ago and focuses heavily on the transmission of technical knowledge to students. It is now recognised that, to deal with the pace of change in accounting knowledge and practice, accounting programmes must encourage students' to develop a full understanding of the principles and concepts that underpin accounting, rather than simply teaching existing technical material (see for example, American Accounting Association (AAA), 1986; Patten and Williams, 1990; Albrecht and Sack, 2000). To achieve the desired learning outcome of high levels of understanding, it is desirable that accounting students adopt deep approaches to learning (Jones et al. 1997; Beattie et al., 1997; Sharma, 1997). To foster quality learning, accounting educators can learn much from reviewing education developments and research in other disciplines, but there is growing awareness of the need for research within specific disciplinary settings (Lucas, 2000).

⁸ For example, in the US, the *Journal of Accounting Education* and *Issues in Accounting Education* were first published in 1983. In Britain, *Accounting Education: An International Journal* was first published in 1992.

Studies investigating the learning approaches of accounting students within higher education have had reasonably mixed results, though it must be said that the majority of the studies seem to indicate that accounting students are more likely to adopt surface approaches rather than deep approaches to learning. One of earliest studies reporting the surface learning of accounting students was an Australian study of first year students by Bowen et al. (1987). Gow et al. (1994) reported that the learning approaches of accounting students in Hong Kong varied during their three years of undergraduate study. The students were more likely to adopt a deep approach to learning in their first year. However, they found that preferences for a deep approach declined sharply between first and second year and then rose to some extent between second and third years, though not to the level identified in the first year. A variety of factors were identified as influencing the Hong Kong students' adoption of a surface approach, including a perception of heavy workload, assessment demands, teaching approach and extrinsic motivation. In a more recent Australian study, Sharma (1997) identified that there was some preference among accounting students for a deep approach to learning by their third year of study but, up until that point, they did not exhibit such a preference. Additionally, Booth et al. (1999) found that accounting students had a significantly higher score on the surface scale and lower deep scores compared to arts, education and science students. They also reported that the higher surface scores of the accounting students were associated with poorer academic performance.

In Britain, Jones and Hassall (1997) reported preliminary findings of a study which associated age and gender differences with the learning approaches adopted by university accounting students. They also reported variation in the learning approaches between students attending semesterised and non-semesterised institutions. Doctoral research by Lucas (1998) explored students' and lecturers' experiences of learning and teaching introductory accounting within higher education. One of the key findings of this research was that students experience the learning of accounting in fundamentally different ways and "learning accounting" is viewed by many students as the learning of a technique.

In an Irish context, Byrne et al. (1999) identified differences between the approaches to learning accounting of first year students on a specialised accounting degree programme and those on a general business studies degree programme. The study contends that the higher deep scores of the students on the specialised accounting degree reflect their greater levels of intrinsic interest in the subject matter compared to students on the general business degree. The study also examined the relationship between the learning approaches of the students and a number of variables in the learning environment. In a further study, Byrne et al. (2002a) explored the relationship between the learning approaches of accounting students and their learning outcomes. They found that, for the full sample, the relationships expected conceptually were present, in that high scores on the deep approach to learning scale were associated with high academic performance. Additionally, high scores on the surface learning scale were related to poor academic performance. However, the study generated some very interesting findings regarding gender differences. The relationships of the learning approaches and learning outcomes of female students were as expected, but no relationships between learning approaches and learning outcomes were found for the male students. The researchers suggest that the unexpected results relating to the male students arise because the learning approaches reported by those students do not reflect the reality of their study activities.

The research conducted in the domain of professional accounting education has been quite disparate and there has been little attempt to develop this field beyond the exploration of competencies, education models, syllabi issues and predicting examination success (e.g. Deppe et al. 1991; Needles and Powers, 1990; Davidson, 1996; McCourt Larres and Oyelere, 1999). There has been little impetus to explore learning issues within pre-qualification professional accounting education and the student experience of learning paradigm has had very limited application in this arena, despite the similarities of the learning contexts. Only one study was identified in the literature which has specifically explored in a professional accounting context, some of the concepts developed in the higher education literature. Hassall and Joyce (1997, 1998 and 2001) examined the learning approaches of students of one of the British professional accountancy bodies. They identified differences in the approaches of British-

based and international-based students. Similarly, it was found that female students more commonly engaged in surface learning compared to male students. However, no investigation of the factors influencing the students' learning was reported in this study, nor were the implications of this finding for the relevant professional accountancy body considered. Some interesting insights into the perceptions of students of ICAEW regarding the syllabus, workload and emphasis on technical knowledge within their pre-qualification programmes, are provided by Coffey (1993 and 1994). However, as this research primarily focused on the socialisation of these students into the training and work environments of their accounting firm, issues pertaining to learning experiences were not thoroughly explored. Other studies, outside the student learning paradigm, but which explore aspects of pre-qualification education of professional accountants and thus deepen the understanding of the context of this study, will be examined in Chapter 4 (e.g. Power, 1991; Hoskin and Anderson-Gough, 2001; Anderson-Gough et al. 2003).

As outlined in Chapter 1, this study aims to develop an understanding of the learning of students when preparing for the FAE of ICAI. While Chapter 2 highlighted that there is limited prior research on learning within pre-qualification professional education, the student learning focused research paradigm delineated in this chapter appears to offer a starting point for the subject matter of this study. It is readily recognised that the concepts, issues and models of student learning explicated in this chapter have related to the higher education context, whereas the setting for the current study is pre-qualification professional education. However, there are many similarities in the two environments which make the possibility of extending the student learning framework a worthy consideration. Firstly, as will be considered in more detail in the next chapter, the FAE is a set of written examinations which students complete at the end of their programme of study. The programme of study embraces a series of traditional lectures, tutorials and a suite of mock examinations, all of which take place during the 10-12 months prior to the examinations themselves. The students participating in the FAE programme are typically graduates who had completed their higher education study one to three years previously. These FAE students are usually in the age group 23-26, and there would be very few mature students or overseas students. The nature of the assessment, the programme of study and the type of

students involved mirror much of the activity of higher education. Thus, it is feasible that aspects of the student learning experience in the higher education context might be relevant in the professional accounting education setting. However, the extension of the concepts to this new environment will not be taken for granted, rather the appropriateness of the extension will be considered at every turn. Furthermore, the researcher will remain constantly open to both new ways of describing learning and to novel issues which may emerge as a consequence of the learning context.

3.5 Summary

This chapter has examined research within the student experience of learning paradigm. The development of this strand of research by Marton and his colleagues at Gothenburg University was explored, and the extension of this research within higher education generally and the discipline of accounting specifically was examined. In summary, there has been a huge growth in research concerning students' experiences of learning. It is now evident that the ways students learn affect the quality of their learning, or in other words, the learning outcomes achieved. Three distinctive approaches to learning have been identified and a wide range of factors has been found to influence students' approaches to a learning task. To date, there has been little extension of higher education research concepts to the context of professional education. This study aims to consider many of the issues raised in the higher education literature in the domain of pre-qualification professional accounting education. Specifically this study focuses on developing an understanding of the learning experience of students when preparing for the FAE of ICAI. The next chapter describes the accounting profession in Ireland, it explores the raging debate surrounding accounting education in Ireland and beyond and it examines the education system and practices of ICAI, which provides the setting for this study.

CHAPTER 4

THE ACCOUNTING PROFESSION AND EDUCATION

4.1 Introduction

4.2 The accounting profession in Ireland

4.3 The accounting education change debate: An international perspective

4.3.1 Criticisms of accounting education

4.3.2 Response of the profession to the criticisms

4.4 The accounting education change debate: An Irish perspective

4.4.1 The changing role of professional accountants in Ireland

4.4.2 The pre-qualification education system of the ICAI

4.4.3 The ICAI, the future and the need for student-centred learning research

4.5 Summary

4.1 Introduction

The objective of this study, as stated in Chapter 1, is to develop an understanding of the learning of prospective professional accountants as they prepare for the qualifying examinations of a professional accountancy body in Ireland. The research was motivated by a perceived gap in prior literature pertaining to pre-qualification professional accounting education and by the researcher's personal experiences of being a student within that environment. The literature review presented to date has developed the framework for the study in two ways. Firstly, as the study relates to a profession, Chapter 2 briefly explored the nature of professions and the role, objectives and forms of pre-qualification professional education. It was identified that the key goal of professional education is the development and maintenance of professional competence, which embraces a complex web of knowledge, skills and values. Furthermore, it was recognised that little research to date has been conducted to explore the nature of students' learning in pre-qualification professional education or to consider its implications for the achievement of the espoused high quality learning outcomes of professions. Thus, to inform the design of this study on students' learning in pre-qualification accounting education, research on the learning of students within higher education was interrogated in Chapter 3. While it was appreciated that theories, concepts and issues developed in that context could not be extended to a new environment without due analysis, it was considered that the ethos and approach of that body of research could be significantly illuminating. Hence, elements of the student learning paradigm, such as learning approaches, factors which influence learning approaches, and their relationships with learning outcomes were explored.

Hence, the role of this chapter is to draw together those two aspects of the framework for this study - professional education and students' learning - by delineating the context of this study within pre-qualification professional accounting education in Ireland and by explicating the specific setting within that context, namely the FAE of ICAI. This is achieved by, firstly, examining the structure and nature of the accounting profession in Ireland and by locating ICAI within that structure. Secondly, the goals of pre-qualification professional

accounting education are examined by exploring the accounting education change debate. Initially, problems of traditional accounting education exposed internationally are delineated and the responses of professional bodies in the USA, Britain and elsewhere are considered. Then the relevance of the change debate to the Irish accounting profession is explored by evaluating the change in the role of professional accountants in the 20th century and by describing and analysing the pre-qualification education system of ICAI in the light of these changes. The chapter concludes by summarising the contribution of the literature review to the justification of the current study and the pertinence of its research objective.

4.2 The accounting profession in Ireland

The accounting profession worldwide has traditionally been associated with institutional fragmentation, with a range of bodies or associations representing accountants in any one country (Anderson-Gough et al, 1998, p.10). This fragmentation is historically associated with the variation in both the activities performed by members of different professional bodies and the types of organisations in which they work. The structure and form of the accounting profession in Ireland, as will be outlined, shows remarkable similarities to the profession in Britain, which is perhaps not surprising given the historical relationship between these countries (Byrne and Flood, 2003).

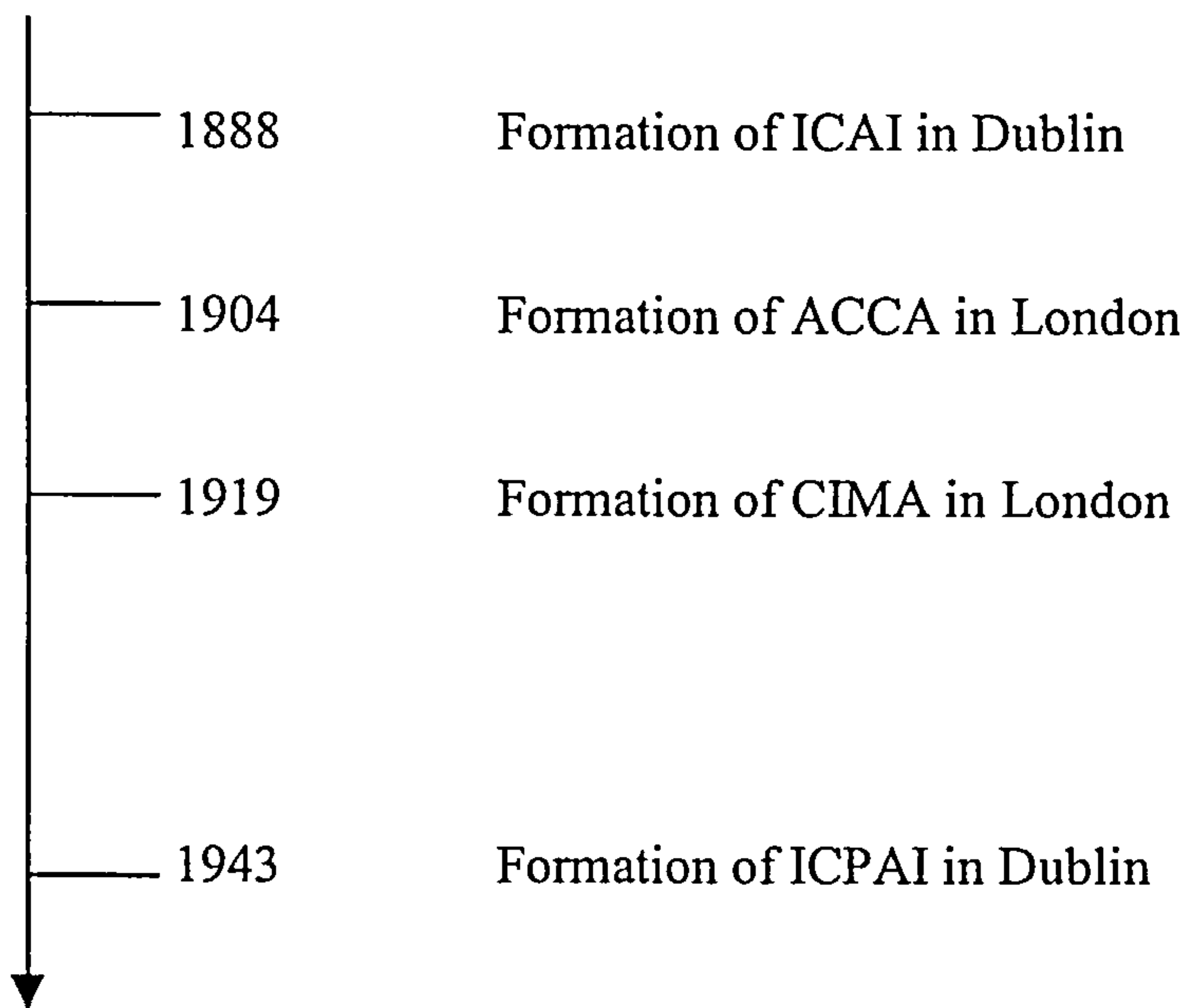
Table 4.1 Professional accountancy bodies operating in Ireland

	Members	Students
The Institute of Chartered Accountants in Ireland (ICAI)	12,775	2,500
Institute of Certified Public Accountants in Ireland (ICPAI)	2,000	1,500
Chartered Institute of Management Accountants (CIMA)	2,563	2,164
Association of Chartered Certified Accountants (ACCA)	5,200	4,115

Source: Information supplied by the individual bodies in 2002/2003

Four accountancy bodies currently operate in Ireland, as detailed in Table 4.1. ICAI is the largest and longest established body, receiving a royal charter in 1888 (see Figure 4.1). It is akin to ICAEW and ICAS and its activities are traditionally grounded in public practice, with the provision of audit, tax and other services by accounting firms. CIMA and ACCA both operate in Ireland as branches/divisions of the British-based bodies. CIMA is customarily associated with management accounting in industry and developed from the Institute of Cost and Works Accountants formed in 1919. ACCA, established in 1904, has historically focused on both activities of public practice and industry. ICPAI was formed in 1943 and is an Irish-based and managed body, which has developed both public practice and industry roles.

Figure 4. 1 Time line highlighting the development of the different professional accountancy bodies operating in Ireland



While the development of different professional bodies was due historically to the differing occupational functions of members, there is now a considerable overlap in their activities. This is evidenced in the fact that, increasingly, members of all

of the professional bodies work outside practice, engaged in a variety of accounting, financial and other roles in the private and public sectors¹. Also, the nature of the work of accounting firms has changed considerably in recent years. Traditionally, the main activities of firms entailed audit work and the provision of taxation services, whereas today, increasing percentages of the total income of the 'Big 4' accounting firms in Ireland and internationally are generated by non-traditional activities, e.g. management consultancy and other advisory services (Neimark, 1996). For example, in the last ten years the income generated by the consultancy business of KPMG in Britain rose from 16.7% of total fee income to approximately 30% in 1999 (Corning, 2000).

While acknowledging the increasing convergence in the roles and activities of the members of the different professional bodies, it should be noted that there have been considerable differences in the prestige associated with the different bodies. Anderson-Gough et al. (1998, pp.10-11) comment that the long-standing pre-eminence of ICAEW and ICAS in Britain is due to the historical relationship of these bodies with the influential agencies of central government. In Ireland, ICAI has customarily been afforded most distinction or recognition. The status of ICAI may be due to its relationship with ICAEW and ICAS, the connections of its founders to the most prominent and wealthy Irish Protestant families of the time, the success of the major accounting firms with which it is affiliated, the rigour of the training and education process or a range of other factors. No research on this issue has been published as the history of ICAI and indeed the accounting profession in Ireland generally is "remarkably under-researched" (O'Regan and Murphy, 1999). However, regardless of any historical or contemporary differences between the bodies, there is little doubt that professional accountancy qualifications are very highly regarded, as Hanlon (1994, p.35) comments "accountancy has become the preeminent qualification for business in the Anglo-American world". The high demand for accounting skills in Ireland, Britain and elsewhere validates professional accounting qualifications as passports for top

¹ Tinker and Koutsoumadi (1997) estimate that approximately 90% of accounting graduates in the USA end up employed outside public practice. In Ireland and Britain a similar trend in the employment of professional accountants is occurring - 66% of ICAI members currently work outside public practice (ICAI, 2002a).

management roles (Anderson-Gough et al., 1998 p.11). Furthermore, it signifies that professional accountants are viewed as "the premier providers of management information to business" (Collins, 2000, p.12).

In terms of maintaining and enhancing their role and status in the business community, all of the professional accountancy bodies in Ireland place considerable emphasis on the education and training of prospective members. For example, ICAI state:

The title "Chartered Accountant" has a fine tradition, but tradition carries no assurance for the future. That assurance comes through the quality of the students we recruit each year, the training and education of these students and the professional and ethical standards which all members sustain (ICAI, 2000, p.9).

However, there is often a blurring of the boundaries between what is meant by both 'education' and 'training' in considering the process of qualification for professions, to the extent that the terms at times appear to be used interchangeably. For the purposes of this study the researcher wishes to clearly describe the meaning that will be ascribed to the terms. As was referred to in Chapter 2, Peters (1967, p.7) distinguishes training as being more confined than education, in the sense that "people are trained *for* jobs, *as* mechanics, and *in science*", whereas education is associated with a "more all-round type of development". In the context of the accounting profession, Puxty et al. (1994) describe the formal educational process of prospective professional accountants as the series of lectures, tutorials and study materials that students encounter in preparing for the qualifying examinations of a professional body. On the other-hand, they describe training as the work experience required for membership. The researcher supports this distinction and will use this delineation between education and training throughout this study. However, while this study clearly falls within the domain of education since it explores students' learning as they prepare for their qualifying examinations, work experiences and work-based issues will be explored to a certain degree, as they may impact on students' examination preparation and they are likely to be affected by students' examination success. Furthermore, it is readily recognised that it is the combination of education and training which leads to the development of professional competence and there is a

need for prospective professional accountants to link and integrate their learning for qualification purposes and their work-based learning (Anderson-Gough et al., 2003).

The qualification process of the various professional accountancy bodies is perceived as both challenging and time-consuming and involves passing a range of examinations and completing satisfactorily a period of supervised training. All of the bodies provide exemptions from professional examinations for graduates, though full exemption is not afforded by any of the bodies. Thus, all prospective members must complete, at a minimum, the final qualifying professional examinations of their respective body regardless of previous educational qualifications. Each of the professional bodies operates its own syllabus and examination system. However, ICAI is the only body which is directly involved in providing tuition for students preparing for its examinations. The other bodies do not provide tuition programmes, rather a range of private colleges run courses in advance of examination sittings. With respect to the training requirements of the different bodies, ICAI requires all prospective members to enter into a training contract with a recognised principal for a minimum of three years. During the training period the prospective member is expected to attain suitable experience and is required to maintain a training log in conjunction with his/her principal which describes the experience gained. This training log must be presented and reviewed by ICAI before membership can be confirmed. Typically the training of prospective members of ICAI must be completed in a member accounting firm, though since the 1980s, a *training through business* scheme has been in operation, whereby prospective members can complete their training period under a member working in industry or the public sector. To date, few students have pursued this training route. The other accountancy bodies similarly require a minimum training period and the maintenance of a training log. However, they typically do not employ the concept of a training contract.

Before examining the accounting education change debate, which has raged for approximately 20 years and which is relevant to the accounting profession world-wide, it is important to briefly make reference to the current state of the profession. Accounting today is operating in a more complex business

environment than ever encountered previously. In many countries there are more accountants and more regulations than ever before. However, in recent years, the global business community has been rocked by huge accounting and financial scandals. In the USA, the Enron debacle, followed by problems at WorldCom, Xerox and others have prompted intense public scrutiny of the role of accounting within organisations and the function and responsibilities of auditors (Sack, 2003). In Ireland, the largest employee fraud was uncovered in 2002, arising as a result of rogue trading at a US subsidiary of AIB, Ireland's largest banking organisation. Coupled with the involvement of accountants in other recent public scandals, this incident has caused increasing questioning of the role of accountants and the regulation of the accounting profession in Ireland. However, many commentators recognise that the pressure on the accounting profession today is simply symptomatic of a profession which has been in a state of flux for many years:

In accounting, the right of the profession to regulate its activities, the behaviour of accounting firms, and the usefulness of accounting information have all been questioned in recent times (Velayutham and Perera, 1993, p.288).

The sources of the profession's problems are many. Firstly, professional accountants face an identity crisis, as the nature of their work has changed considerably in recent years (see for example AAA, 1986; Sundem and Williams, 1992; Collins, 2000). Professional accountants today work in complex organisations with complex businesses which are changing constantly. While in the past the role of professional accountants was dominated by gathering and recording data and conveying information to management for different purposes, many of these traditional activities are today performed by information technology. As a result, accountants are now being asked to contribute to organisations by converting information into knowledge and by adding value to the decision making process (Sack, 2003). The dissonance between accountants' traditional and emerging roles is blurring the boundaries of the domain of the accounting profession and is causing a crisis of identity to the extent that many professional accountancy bodies today describe their members as business advisors and business analysts rather than accountants (see for example, ICAEW, 1998).

The tensions concerning the role and occupational territory of professional accountants are further illustrated by the changing activities of the 'Big 4' accounting firms. While in the past the provision of audit and taxation services were the staple products of accounting firms, the recent growth of accounting business has occurred in the non-traditional areas of service, such as consultancy (Hanlon, 1994; Neimark, 1996; Anderson-Gough et al., 1998; Corning, 2000). Many consider that the large modern accounting firms are attempting to align themselves with other professional service groups and reform themselves as multi-disciplinary practices offering clients a one-stop-shop for professional services (Tinker, 1998; Corning, 2000). The desire of firms to focus on non-audit services is caused by a number of factors, most importantly, the higher profit margins attainable for non-audit business and secondly, the increasing legal pressures within the audit environment (Anderson-Gough et al., 1998, p.12; Puxty et al., 1994). Indeed, it is reputed that many firms view the provision of audit service as a loss leader, which yields the opportunity to sell high margin consultancy or advisory services (Sack, 2003).

Many commentators consider that the increasing profit-making motive of accounting firms and their move away from the audit function is indicative of a profession which has lost a sense of public service and now is more akin to a commercial industry (Hanlon, 1994; Anderson-Gough et al., 1998). As was briefly outlined in Chapter 2, one of the key traits of a profession distinguishing it from other occupational areas is a commitment to public service. Additionally, professions are typically self-regulating and thus have the onus of ensuring that all members act professionally and uphold the concept of public service. Professional accountancy bodies espouse their commitment to the public interest by the issuance of ethical guidelines to members and by the operation of disciplinary procedures to assess the practice of members. However, Canning and O'Dwyer (2000, p.2), in reviewing the disciplinary process of ICAI, argue that:

.... the public interest and an attendant concern for accountability and transparency is merely used as a convenient mechanism for avoiding criticism and state regulation by members of the accountancy profession.

Puxty et al. (1994) contend that professional accounting education fails to embed public interest and ethical behaviour at the heart of professional activity. They argue that accounting education doesn't locate accounting in any social or organizational setting and fails to develop critical thinking and reflection. During their professional education programmes prospective professional accountants may be made aware of existing ethical guidelines, but little critical engagement with those guidelines or consideration of their appropriateness or centrality to professional action is fostered. Thus, a vicious circle is enacted, whereby the accounting profession institutionalises its existing view of ethics and ethical practice by embodying such views in the education of future members (Puxty et al., 1994). Thus, the exposure of such future members to other world views, which might encourage the questioning of existing practice, is restricted. The role of education in meeting the needs of a changing profession is at the heart of the accounting education change debate which is fully explored in the next section of this chapter. The subsequent section evaluates this debate in an Irish context.

4.3 The accounting education change debate - An international perspective

This section explores the emergence of the accounting education change debate internationally and considers the responses of the accounting profession to the issues raised. As will be illustrated, the debate emanated from the USA, where accounting education programmes aimed at prospective professional accountants are offered nearly exclusively in the higher education sector. Many students sit the qualifying examinations for the various professional accountancy bodies, immediately on graduation and thus there is little recognition of pre-qualification professional accounting education in any context other than that provided by the higher education sector. This form of accounting education is in stark contrast to that encountered in Ireland, Britain, Australia and many other countries worldwide. In this alternative tradition, prospective professional accountants typically encounter pre-qualification professional accounting education in two forms. Firstly, such prospective accountants usually complete accounting degrees within the higher education system. Secondly, on graduation they attend courses and prepare for the series of professional examinations which are required to

achieve professional qualification. Regardless of the variation in the traditions of pre-qualification professional accounting education, the change debate is equally relevant in both cases, as it questions the extent to which prospective members are appropriately prepared for their professional careers. Thus, the term 'accounting education' is used to cover the range of pre-qualification education forms.

4.3.1 Criticisms of accounting education

The accounting education change debate came to the fore in professional circles in the USA with the issuance of two major reports in the 1980s: the Bedford Committee Report (American Accounting Association (AAA), 1986) and the 'Perspectives on Education' white paper issued by the then 'Big 8' accounting firms (Arthur Andersen et al., 1989). Both of these reports highlighted that the fundamental problem of accounting education was its failure to keep pace with the changes encountered in the accounting profession, as the Bedford Committee Report concluded:

1. The accounting profession is expanding, entering a new era with new functions within organizations and within society and with new expectations of those who enter it.
2. The current state of most professional accounting education programs is inadequate to meet the needs of this expanding profession (AAA, 1986, p.172).

The two reports particularly identified that the role of the accountant had been significantly altered by changes in the natures of activities of the organisations in which he/she works, increasing globalisation, the contribution of information technology and increasing regulation and scrutiny of accounting practice. They consequently recognised that in order to fulfil their new and ever-changing roles, accountants require a dynamic knowledge base and an evolving set of skills. It was explicated that, despite these changing demands facing accountants, accounting education had changed little over the past decades and it was thus deemed to be failing the profession as it was not appropriately educating students for their future careers.

Both the Bedford Committee Report (AAA, 1986) and the 'Perspectives on Education' white paper (Arthur Andersen et al., 1989) identified a number of

common problems with accounting education programmes. Firstly, programmes traditionally had a content orientation, focusing on imparting technical knowledge to students in a standard lecture format. The reports recognised that given the rate of change in regulation and practice within the accounting discipline² and the dynamic environment in which accounting operated, no accounting programme could provide a student with all the technical and general knowledge that he/she would need throughout his/her professional life³. The second principal problem associated with accounting programmes was their failure to prioritise the development of the wide variety of skills that would be required by students to survive and thrive in the dynamic professional work environment. Hence, in the light of these problems, the reports recommended wide-sweeping changes to regain the relevance of accounting education. In particular, the reports recommended that programmes needed to focus on empowering students with the skills necessary to deal with the changes they will encounter during their professional lives. This focus involves developing students' critical thinking and analytical skills and other skills that will facilitate them in continuing to learn independently as their careers progress. It was recognised also that programmes needed to move from a content orientation to focusing on the process of student learning and the encouragement of learning approaches that would foster independent and lifelong learning.

While the reports discussed above emanated from the profession in the USA, it should be noted that accounting academics there readily supported the need for change. Many recognised the stagnation of accounting education (e.g. Needles and Power, 1990; Sundem and Williams, 1992; Mueller, 1994) and the need for the development of a wider skills base among prospective professional accountants, as Deppe et al. (1991, p.258) comment:

² An example of the rate of change of the accounting regulation is evident from an examination of the number of Financial Reporting Standards (FRSs) issued by the Accounting Standards Board since its inception in 1990, compared to the previous body the Accounting Standards Committee (ASC). In the 21 years of its existence from 1970-1990 the ASC issued 26 Statements of Standard Accounting Practice (SSAPs), some of which were withdrawn within the lifetime of the committee. Since its formation in 1990 the ASB has issued 19 FRSs, which are much more detailed than SSAPs. There is also an increase in the rate of issuing exposure drafts of FRSs and there is also a significant increase in the issuance of other guidance notes, etc.

³ It should be noted that dealing with the obsolescence of discipline specific knowledge and the development of new knowledge is seen as a major challenge for professions in general at the turn of the 21st century (Taylor, 1997, p.18).

Training in accounting that was sufficient for the industrial era is no longer adequate. Competencies for accountants must be expanded beyond the technical knowledge and skills currently emphasized).

Needles and Powers (1990), in chronicling the development of accounting education models by professional bodies in the USA between the years 1967 and 1990, contend that the imparting of technical and rule-based material was clearly prioritised over the development of skills. Frederickson and Pratt (1995) warn educators that the call for the development of a broader skills set among accounting students cannot be ignored. They argue that, if accounting programmes fail to develop desirable accounting graduates, then accounting employers will simply look elsewhere for suitable recruits and this would impact on the standing of accounting departments within institutions and on the profession as a whole. Tinker and Koutsoumandi (1997) similarly highlight the threat of accounting employers recruiting from outside their traditional source of supply if accounting programmes do not change to deliver graduates with the desired skills to the marketplace. Indeed, Tinker has been one of the most outspoken critics of accounting education over the years. While he has criticised the failure of accounting programmes to develop a broad range of skills among accounting students required for the modern workplace as mentioned above, he has criticised accounting education more vehemently for failing to develop accounting students' "intellectual apparatus" leaving them bereft of the abilities to question and interrogate accounting rules and practice:

Today's students and tomorrow's practitioners are saturated with a litany of rules and procedures that are supported by little other than expedient reasoning, ad hoc explanations and piecemeal rationalizations. Professional accounting education is certainly not a talkshop for exploring the meaning of social existence: rather it resembles a rote-learning process in which students are inculcated with the profession's party line by pedantic and legalistic methods. The role of accounting in major social controversies is never articulated in accounting education because the intellectual apparatus necessary for conducting a comprehensive appraisal is withheld. Instead, every year some 50,000 new U.S. students are overwhelmed with a welter of technical and legalistic material that has no apparent connection to the conflicts and complexities of social existence. The ultimate trivialization and degradation of accounting is the near obsession with rules and bookkeeping procedures. Today's students are trained to become greyhounds in

bookkeeping and ignoramuses in social analysis (Tinker, 1985, p.xx-xxi).

The limitations of the rule orientated, rote-learning emphasis of accounting education were similarly exposed by Kinney (1990). In reflecting on his own experiences of professional education in the 1960s, he describes how his accounting courses did little to develop his understanding of accounting as a social, legal or political phenomenon, or of the dynamics of accounting regulation and practice. Briloff (1990) too criticises accounting education for devoting little time to conceptual or ethical discourse.

Thus in the late 1980s and early 1990s the shortcomings of accounting education in the USA were well and truly exposed. Accounting education programmes were failing twofold to adequately prepare accounting students for their professional lives. Firstly, accounting programmes focused on developing technical accounting knowledge and failed to develop attributes such as critical thinking, analytical skills, problem-solving skills, communications skills and, above all, an ability to adapt to change. Secondly, the technical focus of accounting programmes failed to encourage students to think about accounting and to understand its social, political and historical underpinnings. Students, therefore, did not question accounting rules and practices and thus were inappropriately prepared to develop accounting practice in the future and to adapt to changes in the accounting environment.

Concern regarding the state of accounting education outside the USA has also been growing. In Australia, the Mathews Report (1990) on *Accounting in Higher Education*, emphasised the need to support and revitalise the accounting discipline within higher education as it has suffered a long period of chronic neglect. The change debate has also been active in New Zealand (www.icanz.co.nz) and professional accountancy bodies in both Australia and New Zealand have instigated change in their pre-qualification education structures and systems in recent years.

In Britain, many academics have expressed concern regarding accounting education similar to those raised in the USA. Arnold (1989, p.4) argues that the

increasingly dynamic environment in which accounting operates requires education programmes to develop among students an ability to deal with change. He contends, in tune with US commentators, that an ability to deal with change rests on developing a skills' repertoire which extends beyond technical and numeracy skills. Similarly, the failure of a technical fact-based approach within accounting education to develop a true understanding of the discipline has been highlighted. Sikka (1987, p.293) contends that, while the accountancy profession "purports to attach considerable importance to the theoretical as well as the practical knowledge and is interested in the intellectual development of future accountants", the reality falls far short of the assertions. Puxty et al., (1994) argue that traditional accounting education makes little effort to locate accounting in any social or organisational context, preferring instead a simple process of transmitting factual information:

'Fact'-based learning is dominant; but there is no indication of how 'facts' are formulated or that their construction is always contingent upon particular trajectories of histories, politics and nexus of power relations (p.86).

Accounting students are encouraged to see the world one way only, that is, the way of the accounting profession and current practice. Thus conformity emerges and those who might question practice and might initiate change are not nurtured (Hanlon, 1994, p.115). Stagnation and conformity are also considered to have developed due to the relationship of research, education and practice in accounting. Educators teach and research what is practised and those who are educated practice what they have been taught. In other words, by teaching current practice and encourage a conformist ethos, accounting education is perpetuating stagnation and stifling innovation (Arnold, 1989, p.19). The syllabi of professional accountancy bodies are particularly focused on current practice and, given the high number of students in Britain, particularly in England, who only encounter this form of accounting education, there is a deficit of conceptual accounting knowledge and skills in the profession⁴.

⁴ Some reasons for the high numbers of 'non-relevant' graduates entering the profession in England were explored by Solomons and Berridge (1974).

Ethnographic research on professional accounting education in Britain is insightful. Power (1991) describes his experiences of professional education as a student member of ICAEW in the 1980s. He echoes the view that professional accounting education restricts accounting discourse, commenting: “discursive values are displaced by those of technique and strategy” (p.350). In describing the initial professional accounting induction course that he attended, Power comments on how the need for hard work is repeatedly stressed to students. He also reflects on the difficulties experienced by students in adapting to the new environment. Taylor (1997, p.23) contends that the transition to professional education commonly represents a “major life transition” for students regardless of their prior education or experience or the nature of the course they are undertaking. Power (1991) describes how the tutors on his induction course frequently impressed on him the distinction between learning within a university context and a professional accountancy context. Furthermore, the need for rote-learning was explicitly expressed, as the author comments:

Learning double-entry bookkeeping is described to students as similar to riding a bike, i.e. not an intellectual process (p.340).

Just in the way seeking understanding is not encouraged in coming to terms with new techniques and practices, it is also discouraged for achieving success in the professional examinations:

The dominant instructional idea is not to develop understanding but to score marks in the most efficient manner possible. Understanding is regarded as possibly a necessary but by no means a sufficient condition for examination success (Power, 1991, pp.340-341).

As a result, students view good tutors as the ones who cover the syllabus, teach good examination technique, and are successful in predicting the examination⁵. The author contends that, while the syllabi for the more advanced courses aim to move from a rote-learning emphasis to a discursive approach, this objective is not reflected in the relevant examination papers.

⁵ The obsession of professional accounting students with predicting examination questions is evidenced in ‘Pass’ magazine, a publication aimed at students of the principal professional accountancy bodies in Britain and Ireland.

Many of the experiences recounted by Power are shared by the trainee accountants (graduates trainees with an international accounting firm who are studying for ICAEW examinations) who are the subjects of Coffey's doctoral study (1993). That study, which primarily explores the socialisation of trainee accountants into an accounting firm, explicates students' difficulties in establishing what is required of them within professional education. The trainees' experiences of courses preparing them for professional examinations convey similar themes to those illuminated by Power (e.g. the emphasis on factual knowledge, an uncritical acceptance of rules and regulations, encouragement to rote-learn without understanding). However, an added dimension reported in Coffey's work is the pressure experienced by the trainees to conform within the workplace and the evidence of the interplay between the need to conform in the workplace and studying for professional examinations.

In exploring the organisational and professional socialisation of trainee chartered accountants working in the regional offices of 'Big 4' accounting firms, Anderson-Gough et al. (1998, 2002) also reported interesting findings regarding students' conceptions of being professionals and the nature and role of professional qualification with ICAEW. Firstly, trainees' dominant understanding of being a professional referred to behavioural attributes. Success was perceived to embrace qualification, but more importantly it was associated with expected behaviours and achievements in the workplace. The trainees were highly sensitive to the consequences of failing professional examinations (termination of training contracts, stalled promotion), but professional behaviour dominated examination success in terms of their perceptions of the drivers of advancement. Hence, the trainees in the study held instrumental perspectives regarding professional examinations. The issue for them was to pass the examinations in order to get the qualification of 'Chartered Accountant' so that they could then move on to achieve wider career goals. Anderson-Gough et al. (1998, 2002) thus found that 'credentialism' was the dominant attitude towards the qualification and there was little evidence of the content of the examinations being perceived as valuable to the trainees or indeed of the knowledge accrued as being a feature of professional identity.

Thus it appears that, despite the rhetoric of ICAEW regarding the intention of its qualification process to develop the knowledge and skills necessary to be competent professional accountants, there is little evidence to indicate that students interpret the process as being about professional development. Rather they view examinations and qualification as a means to an end and as a passport to career advancement. The systems of examinations that are in place for ICAEW and other professional bodies, and the courses organised to prepare students for such examinations (albeit by private colleges), primarily encourage fact-based, low quality, rote-learning⁶. Furthermore, trainees do not see a considerable overlap between their studies for qualification and their work. They typically view advancement as being a function of appropriate professional behaviour shaped by their training firm. Thus, there appears to be a mismatch between the demands of the workplace on professional accountants, the actual education system supported by the professional bodies, and the perceptions of trainees regarding the nature of success and being a professional.

The following section of this chapter examines how the profession in the USA, Britain and elsewhere has responded to the criticisms of accounting education and to what extent, if at all, they have attempted to eliminate the mismatch between the demands on professional accountants in the work environment and the education system which prepares them for the workplace.

4.3.2 Response of the profession to the criticisms

In the USA, in response to the support gained for the arguments to change accounting education, the American Accounting Association (AAA) together with the large accounting firms formed the Accounting Education Change Commission (AECC) in 1990⁷. The AECC was charged with instigating change within accounting education and operated by issuing 'position' and 'issue' statements

⁶ In Britain there is little literature specifically reviewing the education and training process of the other major bodies, namely CIMA and ACCA. One recent study reporting CIMA students' views of the training process exposed a number of areas of concern and highlighted the variance between the rhetoric of a quality training programme and the students' views of that programme (Hassall and Joyce, 2000).

⁷ The AECC ceased to exist in 1996.

providing general guidelines to accounting educators. In addition, a scheme to provide grants to universities and colleges for the development of improved curricula in accounting education was introduced (Mathews, 1994).

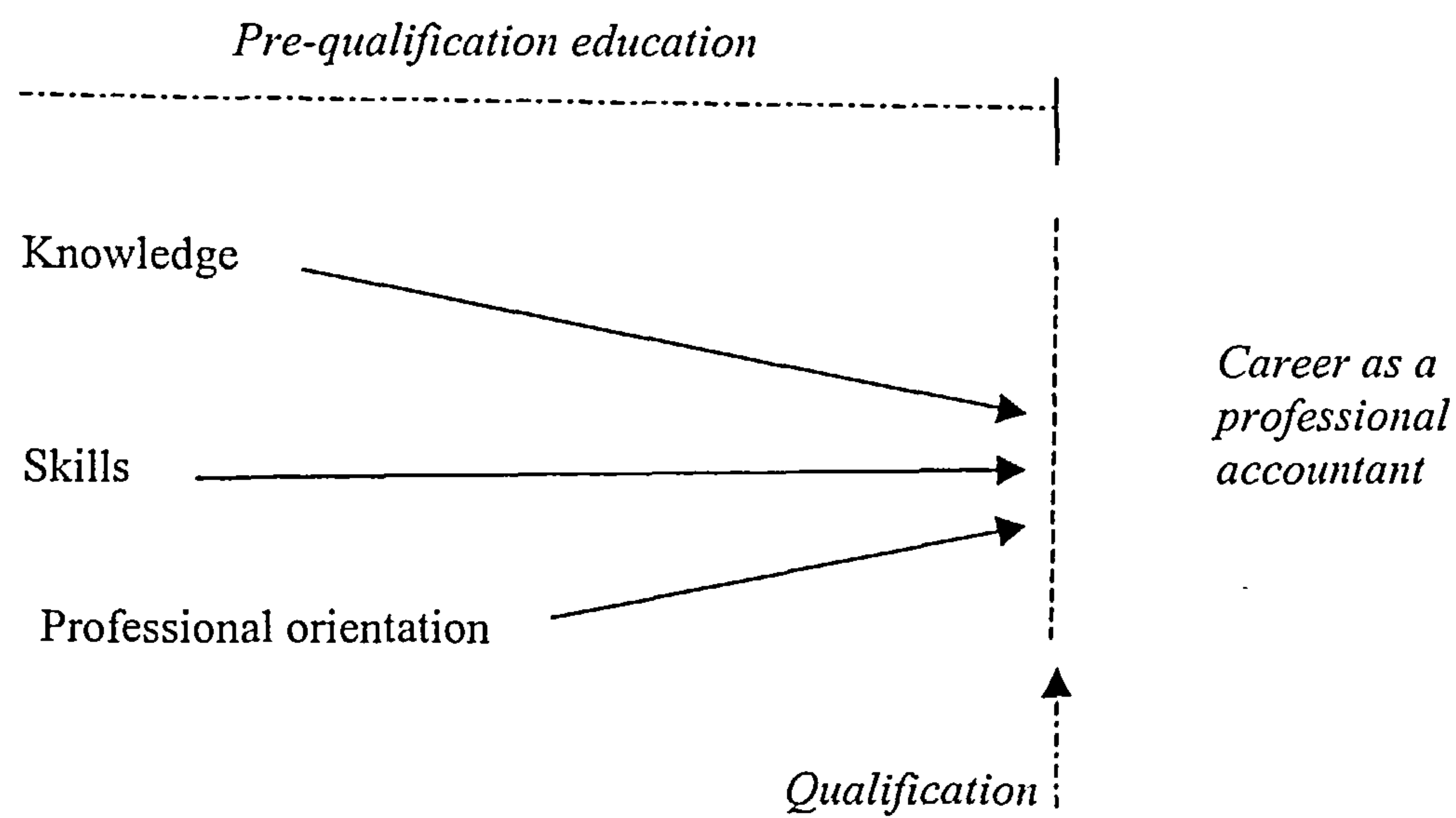
The AECC stated that the overriding objective of accounting programmes must be to provide students with the necessary foundations for a career of learning (AECC, 1990, p.308). It contended that the focus within accounting programmes should be to teach students to learn on their own and to facilitate them to *become* professional accountants. The AECC considered that lifelong learning for the professional accountant would centre around skills, knowledge and professional orientation and the building blocks for such learning must be provided by education programmes in advance of entry to the profession (see Figure 4.2). To ensure clarity surrounding the concepts of knowledge, skills and professional orientation a composite profile of the capabilities needed by accounting graduates was presented by the AECC (see Table 4.2). On reviewing this profile, it is clear that considerable emphasis is to be devoted to the development of non-accounting knowledge and skills. The knowledge element must embrace general and organisational knowledge as well as accounting knowledge; intellectual, interpersonal and communication skills must be developed in addition to accounting skills; and a range of personal capacities and attitudes should be nurtured. The AECC also strongly recommended a change in orientation of accounting programmes from the memorisation of rules and regulations to the development of analytical and conceptual thinking.

Table 4. 2 Composite profile of capabilities needed by accounting graduates

Knowledge	Skills	Professional orientation
<ul style="list-style-type: none"> • General knowledge • Organizational and business knowledge • Accounting knowledge 	<ul style="list-style-type: none"> • Intellectual skills • Interpersonal skills • Communication skills • Personal capacities and attitudes 	<ul style="list-style-type: none"> • Understand ethics • Identify with the profession • Address issues with integrity, objectivity, competence and concern for the public interest

Source: Adapted from AECC, 1990

Figure 4.2: The foundations for a career as a professional accountant consist of knowledge, skills and professional orientation



Source: Adapted from AECC, 1990

The AECC encountered much support from the professional and academic communities in the first couple of years after its formation (Mathews, 1994). However, more than a decade later, despite some successes such as "Project Discovery" at the University of Illinois, little substantive change has taken place to the nature of accounting education in the USA. In a survey of accounting faculty, May et al. (1995) report that while a majority agree with the need for change in accounting education, there is considerable disagreement regarding the extent and form that the change should take. Davis and Sherman (1996) argue that the process by which the AECC operated must be questioned. They contend that, while there was agreement that accounting education was not working, the AECC simply rushed ahead thoughtlessly pushing for change. Little time was taken to understand the true nature of the problems and to consider and evaluate alternative ways of solving those problems. Doost (1999) echoes the sentiment that the change agents have focused on change for change's sake, have been satisfied to identify quick fixes and have failed to seriously examine major issues pertaining to accounting education. He describes the new 150-hour rule required of accounting students to entitle them to sit the CPA examination as a "patchwork solution" and epitomises the profession's disregard for issues such as teaching and

learning quality which would enhance accounting education in the long-term. Many are now openly critical of the contribution of the AECC, as Tinker (1998) comments, "With few exceptions, this effort has been a spectacular disaster." A recent monograph by Albrecht and Sack (2000) reflects that accounting educators have failed to heed all the prior warnings regarding the lost relevance of their programmes, to the extent that accounting education at the beginning of the twenty first century is "outdated, broken and needs to be modified significantly" (p.1). Thus, they have re-ignited the call for change, warning that "more of the same" is not an option.

The International Federation of Accountants (IFAC) has provided an international response to the accounting education change debate⁸. IFAC's revised guideline 'Prequalification Education, Assessment of Professional Competence and Experience Requirements of Professional Accountants' recognises that the environment in which professional accountants work is constantly changing and the professional bodies are charged with the responsibility for equipping their members to meet the new and evolving challenges (IFAC, 1996). The guideline states:

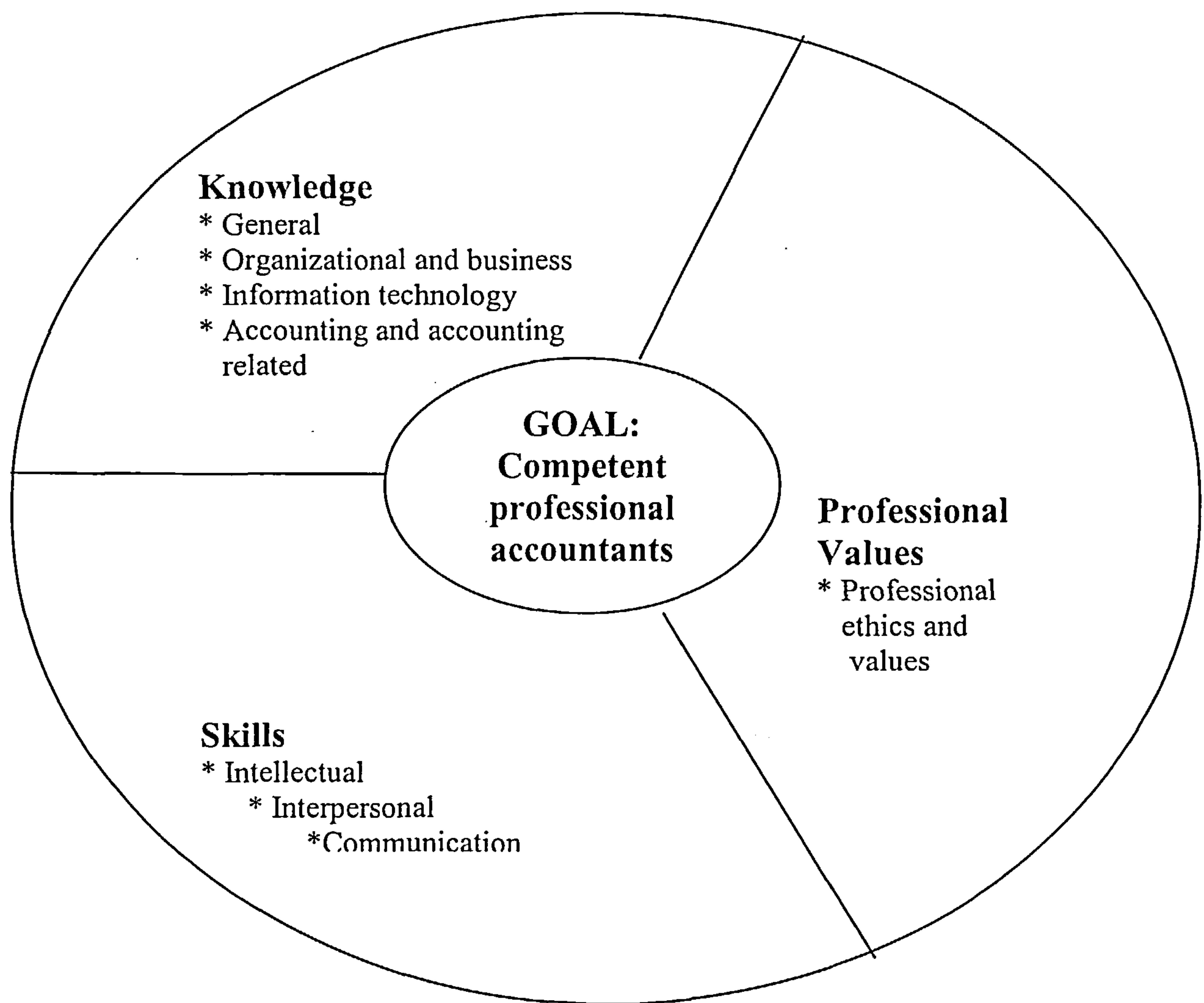
The goal of accounting education and experience must be to produce competent professional accountants capable of making a positive contribution over their lifetimes to the profession and the society in which they work. The maintenance of professional competence in the face of the increasing changes they encounter makes it imperative that accountants develop and maintain an attitude of learning to learn. The education and experience of the professional accountants must provide a foundation of knowledge, skills and professional values that enables them to continue to learn and adapt to change throughout their professional lives (IFAC, 1996, par. 7). (See Figure 4.3).

The IFAC guideline contends that accounting education programmes must move from the traditional approach that has emphasised 'transfer of knowledge', to an approach that will develop professional accountants who will be characterised "by a constant striving to learn and apply what is new" (par. 8). Additionally, it

⁸ IFAC is an organisation of national professional accountancy organisations. Under the umbrella of IFAC there are currently 155 member bodies, in 113 countries, representing over 2 million accountants. "IFAC strives to develop the profession and harmonize its standards world-wide to enable accountants to provide services of consistently high quality in the public interest." (www.ifac.org).

suggests that the knowledge base which will be required by professional accountants in the future will be more broad-based and so accounting programmes should expand beyond the traditional technical accounting courses. Also, the skills base required by accountants will include communication and interpersonal skills, but also intellectual skills such as: the capacity for inquiry, research, abstract logical thinking, inductive and deductive reasoning and critical analysis (IFAC, 1996, par. 17).

Figure 4.3 Goal and elements of accounting education and experience



Source: Adapted from IFAC (1996)

There are considerable similarities between the IFAC guidelines and the recommendations of the AECC. In addition, the emphasis on pre-qualification education preparing students for a career of learning as professional accountants has been reiterated by many professional bodies around the world. Major revisions to the admissions policy and final qualifying examination (FQE) of the Institute of Chartered Accountants of New Zealand have been made in the 1990s. The FQE now emphasises professional qualities and skills as well as accounting. It is based on real case situations and it does not re-examine material covered in prior study (Hay and Maltby, 1997). Similarly, the Institute of Chartered Accountants in Australia, has embedded skills development into its qualification system and has expanded its delivery and assessment processes for developing and testing professional competence.

In Britain, many professional bodies have similarly changed their systems of pre-qualification (Paisey and Paisey, 2000, pp. 47-58). In reviewing its education process and making recommendations for syllabus changes, ICAEW emphasised the need to change students' current modes of learning and to encourage them to develop understanding and to view their learning as a long-term activity:

Given the current syllabuses, the size and nature of the learning task are such that students approach it as a short-term, rote-learning matter, divorced from the reality of the workplace, not as a process which generates deep understanding (ICAEW, 1998, p.12).

Thus ICAEW, like ACCA and CIMA, have introduced new syllabi and examination formats. In each instance the emphasis within the new syllabi is on a broader knowledge base and on developing a range of skills or competencies needed in the market place (Paisey and Paisey, 2000). Despite the reviews and changes made by the various professional bodies to their pre-qualification education systems, there has been no exploration of the learning of students when preparing for professional examinations. However, ICAEW has recently sponsored action research examining the enabling of work-based learning of trainees. Hoskin, Anderson-Gough and a number of other researchers are exploring ways of supporting learning which will develop competent professional accountants in the contemporary, complex accounting environment (Anderson-

Gough et al. 2001; Hoskin and Anderson-Gough, 2001; Anderson-Gough et al., 2003). They examine the increasingly 'transdisciplinary' nature of accounting knowledge and the need for accounting professionals to have an integrative understanding of a range of disciplinary expertise, coupled with personal skills. In this context, it is argued that effective ways of bridging students' 'qualification focused learning' and their 'work-based learning' must be established to enable students to become competent professionals. The work of this research team in explicating the work-based learning of trainees will make a significant and very welcome contribution to the literature on the learning of prospective professional accountants. It is also clear that exploring the learning of students during the formal qualification examination process may enhance the objective of bridging the gap between theory and practice and between the classroom and the workplace, thus increasing the justification for the current study.

It should be noted that the emphasis on developing desired competencies for professional accountants has not rested solely with the professional bodies and organisations such as AECC and IFAC. The issue of competencies and how to develop them among accounting students has received much attention in academic accounting journals⁹. Within the higher education sector, the concern surrounding the competencies and abilities of accounting students has been matched by an increased interest in the vocational aspects of higher education programmes in general. Thompson (1995) attributes the emergence of the competence movement in Britain in the 1980s to the realisation that education and training standards had fallen significantly behind those of other western countries and that a radical overhaul of the education and training policies and practices was required. The focus of the competence movement was on identifying the necessary competencies or attributes required by an individual to perform at work. Established in 1986, The National Council for Vocational Qualifications (NCVC) devised a National Vocational Qualification (NVQ) framework which is a structure of competence-based standards relevant to all levels of qualifications. Described simply, the NVQ framework identifies five levels of competence that embrace increasing levels of complexity, i.e. Level 1 relates to competence in the

⁹ Indeed *Accounting Education - An International Journal* dedicated an issue in 1995 to the exploration of the 'competence movement' within the accounting domain

performance of a range of varied work activities which are mainly routine and predictable, whereas Level 5 refers to competence in complex techniques and skills across abstract and changing contexts (Thompson, 1995). The purpose of this framework is to facilitate the NCVQ to work with occupational groups to devise the competence levels required to perform jobs in each particular occupational area and to aid the design of relevant education and training programmes which would ensure the maintenance and control of competence within the workforce.

Within the higher education sector in Britain there has also been a number of ancillary projects and developments explicitly stating the outcomes of higher education and contributing to the process of monitoring standards. The 'graduateness' project of the Higher Education Quality Council (HEQC) set about identifying those attributes which are expected of graduates across all degree programmes and how these attributes might be defined and their possession assessed (HEQC, 1996). While there are overlaps between the competence movement and the 'graduateness' project, they differ in perspective. The competence movement has a vocational orientation and focuses on performance in the workplace, whereas the 'graduateness' project set about explicitly expressing the expectations of the academic community of a typical graduate (HEQC, 1996). The benchmarking project of the Quality Assurance Agency for Higher Education (QAAHE) has extended the work of the 'graduateness' project. To date, benchmarks for 47 subject areas have been issued, including accounting. Each subject benchmark describes the nature and characteristics of programmes in the defined discipline area and represents general expectations about the standards required for the award of an honours bachelor's degree in the discipline area (www.qaa.ac.uk). Subject benchmarks do not articulate detailed syllabi for discipline areas, rather they provide general guidance for the articulation of learning outcomes of programmes and they facilitate the monitoring of standards and the comparison of programmes.

This section has sought to illuminate the accounting education change debate in an international context. The criticisms of accounting education in the USA, Britain and elsewhere have been evaluated and the different responses of the professional

bodies and organisations have been briefly analysed. In addition, themes of this debate such as the role of competencies have been set in the context of developments in higher education and national policy. Having examined the international debate and research pertaining to various countries, the next section seeks to explore the relevance of the change debate in an Irish context.

4.4 The accounting education change debate - An Irish perspective

To examine the relevance of the accounting education change debate in an Irish context, the changing role of professional accountants in Ireland is examined at the outset. Having identified the changes which have taken place in the role and functions of professional accountants, the response of the Irish profession in changing pre-qualification education accordingly is then evaluated. This debate primarily relates to ICAI, as students preparing for its FAE are the subject of this study.

4.4.1 The changing role of professional accountants in Ireland

As was indicated earlier in this chapter, ICAI was formed under royal charter in 1888. It is interesting to note that, since its establishment, ICAI has been an all-Ireland organisation. The coming together of accountants from both the North and South of Ireland at a time of increasing political tension may seem surprising, but it was prompted primarily by economic self-interest (Annisette and O'Regan, 2001). A number of the ultimate founders of ICAI had trained in England or Scotland and had witnessed the benefits accruing to members of a well-organised professional body. Furthermore, it was felt at the time that many English firms were using their involvement with the established professional bodies as a means of acquiring the most lucrative accounting work in Ireland. Thus, it was considered that establishing ICAI under royal charter was the best course of action for Irish accountants to maintain their status and to protect Irish accounting work for themselves (Annisette and O'Regan, 2001). Since its formation, Ireland has changed considerably in political terms. In 1922, independence from Britain was secured, though at the expense of partition, with the six north-eastern counties

remaining part of the United Kingdom of Great Britain and Northern Ireland. Despite this partition and the tensions which have surrounded Northern Ireland for the greater part of the 20th century, ICAI has flourished as an all-Ireland body.

While ICAI had 42 members on formation, its membership has grown to 12,775 by 2002. However, the rate of membership growth was not constant. As Table 4.3 illustrates, the enlargement of ICAI has primarily occurred in the recent years, with a staggering growth in membership between 1988 and 2002 of over 100%. The slow growth of the Irish accounting profession in the early part of the 20th century may be due to a number of factors but principally to the underdevelopment of the Irish economy (Hanlon, 1994, p.50; Byrne and Flood, 2003).

Table 4.3 Membership of the ICAI

Year	Number of members
1888	42
1938	417
1970	2,312
1980	4,033
1988	6,000
2002	12,775

Source: Quin, 1988; ICAI, 2002a

Of the ICAI's active membership today, 83% work in Ireland, 8% work in Britain and 9% work abroad elsewhere (ICAI, 2002a). Some 34% of current active members are in practice or are employed in practice and 66% are employed outside practice (ICAI, 2002a). This latter statistic is in stark contrast to that of the forming members of ICAI who were all in practice and it again highlights the need to examine briefly the changing role and activities of professional accountants in Ireland.

In the years after its formation, the main work of ICAI members related to bankruptcies and failures. The early members also generated some business by

developing clients' accounting systems, completing basic taxation work and conducting land agency duties (Robinson, 1983, p.26-28; Hanlon, 1994, p.50). The latter feature stemmed from the number of absentee landlords in Ireland and thus accountants took advantage of Irish economic and political circumstances. However, the primary implication of the underdevelopment of the Irish economy and the limited amount of industrial development meant that early practitioners generated fee income from a high number of small accounts. This experience of the early Irish accountants was very different from their English counterparts who thrived in the industrial development of the late 19th century (Hanlon, 1994, p.50). Similarly, while statutory audits became a staple product of the accountancy profession in the early 20th century, the limited industrialisation experienced in Ireland restricted the opportunities for Irish accountants. In comparison, the British profession, particularly in London and other English cities, flourished due to economic expansion and the challenges posed by the outbreak of the First World War. Wide-scale manufacturing activity was initiated to support the war effort and accountants were heavily involved in cost control, cost accounting and in governmental planning. Such opportunities did not arise in Ireland and, while Irish accountants did benefit from the enhanced prestige associated with the profession generally after the war, it did not occupy a central role within the economy as experienced by its British counterpart (Hanlon, 1994, p.52). The status of professional accountants in many countries further developed during the Second World War and in the period of global economic development which followed. However, Ireland in the 1950s was gripped by chronic economic depression, which led to the emigration of many ICAI members to Britain, the USA, Australia and elsewhere (Byrne and Flood, 2003).

However, the role of Irish professional accountants and the range of opportunities which they experienced altered considerably in the second half of the 20th century. In the 1960s, recognising the failure of previous protectionist economic policies, the Irish government removed trade barriers and encouraged foreign direct investment, which resulted both in the development of Irish indigenous industry and an influx of overseas companies. These activities led to a host of new business opportunities for Irish accountants, as did Ireland's entry into the European Economic Community (now the European Union) in 1973 (Byrne and Flood,

2003). Robinson (1983, p.221) contends that the altering economic activity imposed heavier and more varied responsibilities on accountants. Operating as a sole practitioner, or indeed as a small practice, became impractical because of the breadth of knowledge required to properly service the demands of the expanding industrial and services sector. Thus, the trend of accounting firm mergers, which continues today on a global basis, emerged in an Irish context during the 1960s in response to the increased pressures on accountants to provide a wider range of services (Robinson, 1983, p.221). Furthermore, the expanding work opportunities created a pressure for accountants “to keep afloat on the incoming tide of technical advances as the telex was replacing the telegram and even the telephone; the tape; the carbon copy; and the computer the patient junior clerk.” (Robinson, 1983, p. 222). Therefore, the changing role of the professional accountant related to both the tasks that he/she performed and the ways in which he/she performed those tasks.

In the 1970s and 1980s, the expansion of the management consultancy business within accounting firms and the growth in the provision of other services such as corporate financial advice, extended the activities of practising accountants to a level that would never have been conceived at the start of the century (Gibson, 1988, p.9). Similarly, the continuing growth in opportunities for Irish accountants outside practice and the developing technologies associated with those activities were symptomatic of a profession which had out-stripped its expectations, as Quin (1988, p.93) comments:

The traditional function of the chartered accountant was previously to process information. By the mid-1970s the processing function diminished in importance with the rapid advance in microcomputer technology. The chartered accountant is now more concerned with the information output by computers and with how to manage information The skills he requires for this enhanced function are analytical, interpretive and managerial.

The Irish economy experienced phenomenal growth in the 1990s and is commonly referred to as the 'Celtic Tiger'. Gross Domestic Product (GDP) rose by an average of 9.6% per annum between 1994 and 2000 and the level of unemployment fell dramatically (Haughton, 2000). Rapid export growth, wage and price restraints, low inflation and increased consumer spending all

contributed to economic success. Furthermore, the availability of a well-educated, English-speaking workforce attracted many technology, pharmaceutical and financial multi-nation companies to establish large operations in Ireland (Byrne and Flood, 2003). The accounting profession has continued to blossom in this environment. Membership of professional accountancy bodies has exploded as the job opportunities, in terms of challenges and remuneration, attract large numbers of graduates every year. The major accounting firms in Ireland have recently reported continued fee income growth (O'Neill, 2000). For example, KPMG reported fee income of £77.3 million for the year ended 30 April 2000, which represents an increase of 18% compared to the previous year. Perhaps the extent of growth in Irish accounting firms business is best illustrated by recognising that the fee income of KPMG in 1988 was £20 million approximately (Hanlon, 1994, p.56).

However, while the accounting 'industry' is thriving, it must be recognised that the pressures on accountants have increased further with enhanced developments in technology and an increasingly dynamic environment. Collins (2000) warns the Irish profession that, if it fails to evolve and respond to the changing environment its preeminence as the custodians of business information will be eroded. He argues that the key challenge for the profession is to maintain its historic goals and values but to move forward with different methods. He contends that accountants today need to have analytical skills and communication skills in conjunction with a broad-based accounting and general business knowledge.

It would appear that the extent of change in the role of professional accountants experienced and recorded in the USA, Britain and elsewhere has been similarly encountered in an Irish context. While the pattern of change may have been different (i.e., in Ireland there was slow development in the early part of the 20th century but accelerated development in the latter half of the century), there is no doubt that the challenges facing Irish accountants today are similar to those facing their counterparts internationally. ICAI acknowledges the changes encountered in the role of professional accountants in Ireland and, as a member of IFAC, it subscribes to the guideline regarding the pre-qualification education of professional accountants. However, it is necessary to evaluate how it has

developed its education process in the light of the environmental changes and to analyse its efforts to enact the recommendations of IFAC. Hence, a historical review of the education system and structures of the ICAI is essential in developing an understanding of the setting of this study.

4.4.2 The pre-qualification education system of the ICAI

There is a variety of routes to becoming a student member of the ICAI, and the route pursued impacts on the number of professional examinations which must be completed and the length of the training contract. The current examination system of the ICAI consists of two Professional Examinations (Professional 2 and 3) and the Final Admitting Examination (FAE), with each level involving four papers (see Table 4.4).

Table 4.4 The current structure of ICAI examinations

<i>Professional 2</i> 1. Financial Accounting and Introduction to Auditing 2. Business Information Systems 3. Management Accounting and Business Finance I 4. Taxation I
<i>Professional 3</i> 1. Advanced Financial Accounting 2. Auditing 3. Management Accounting and Business Finance II 4. Taxation II
<i>Final Admitting Examination</i> 1. Auditing and the Reporting Accountant 2. Financial Accounting and Reporting: Tax Planning 3. Management Accounting: Business Finance 4. Multi-discipline case study

Source: ICAI (2002b)

To become a student member of the ICAI, non-graduates must firstly complete with distinction the foundation examinations of the Institute of Accounting Technicians in Ireland (IATI). They must then enter a training contract and are

required to complete all ICAI examinations. Non-business graduates are similarly required to complete all ICAI examinations. However, these graduates have the option of taking a postgraduate diploma offered at Dublin City University, Dublin Institute of Technology or the University of Ulster (Jordanstown), which then exempts them in full from Professional 2. Graduates with a degree in accounting or business may be exempt from some or all of the individual papers within Professional 2. Currently, degree programmes from 21 universities and third level institutions in Ireland have been awarded full or partial exemption from the Professional 2 examination (ICAI, 2002b). Graduates of specialised postgraduate accounting programmes offered at Dublin City University, University College Dublin, NUI Galway or the University of Ulster (Jordanstown) are exempt from Professional 3. All students must complete the FAE. Figure 4.4 illustrates the various routes to membership and Figure 4.5 depicts the typical make-up of the the ICAI's student intake.

Not surprisingly, written examinations have formed the backbone of the ICAI's qualification process since its formation as they are regarded as essential in developing the competence of future members and to maintaining the perceived high status of the profession (Robinson, 1983, p.61; Geddes, 1995). However, changes to the structure and syllabi of the examinations have been made many times since the first professional examinations at the end of the last century.

Figure 4.4 Routes to membership of the ICAI

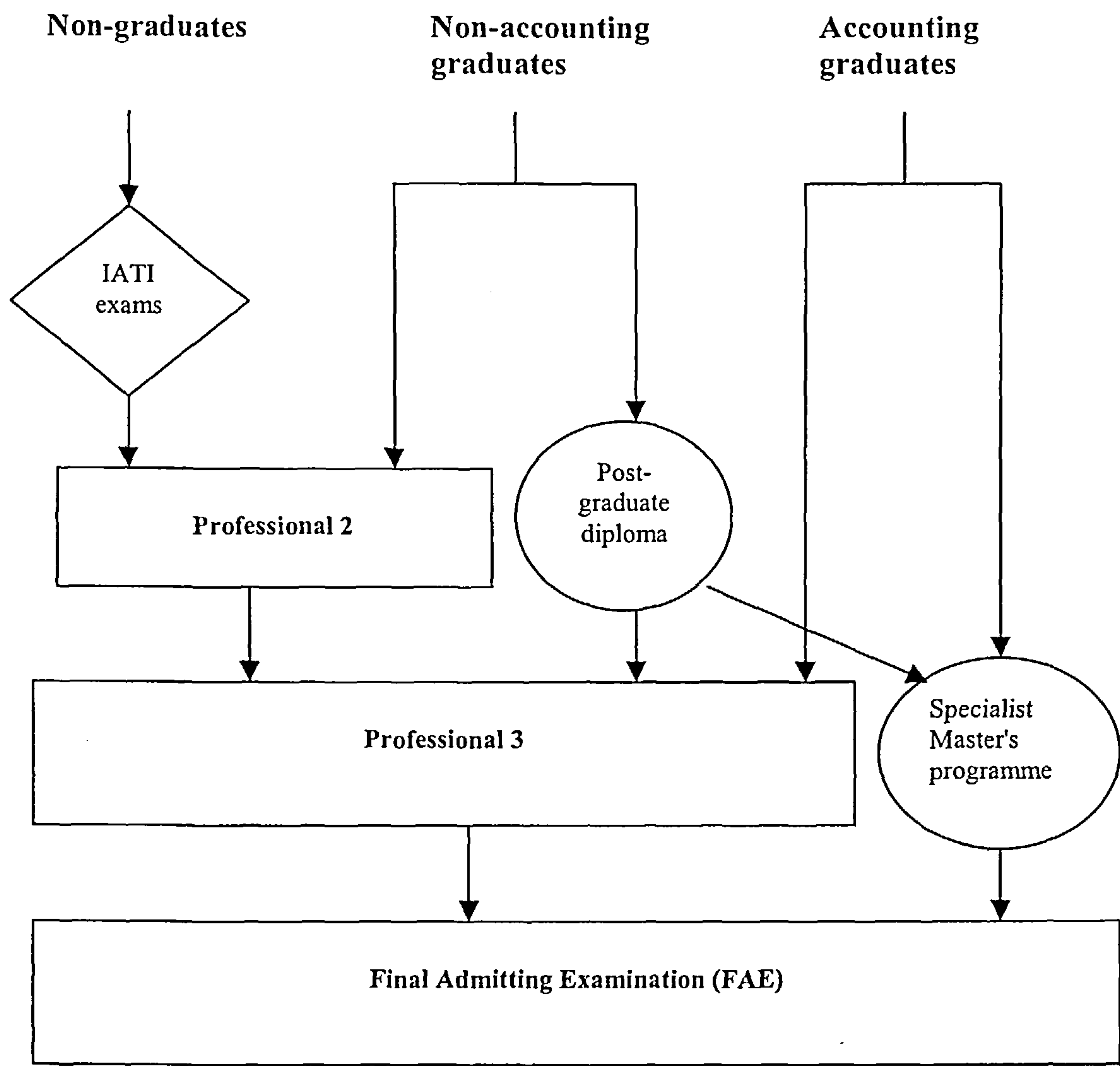
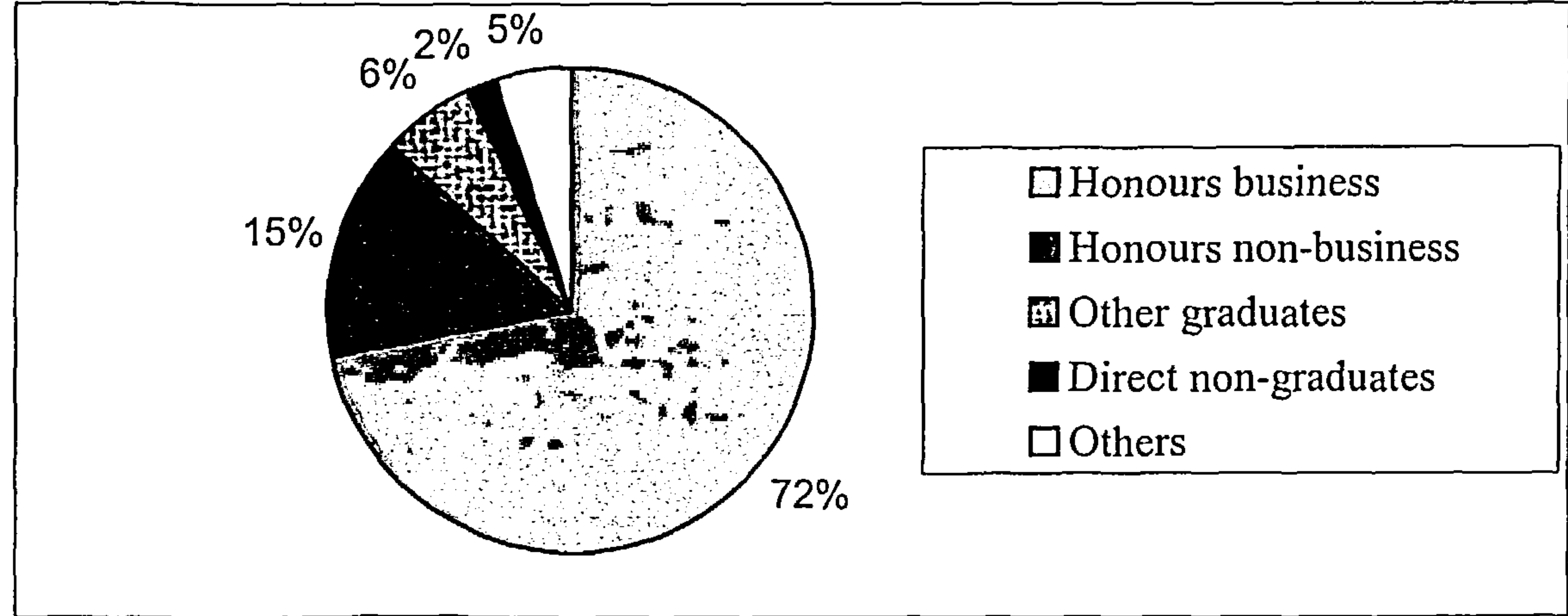


Figure 4.5 Profile of the ICAI's student intake



Source: Information provided by ICAI in 2003

The changes to the structure of the examinations relate to grouping examinations into stages or levels. In the early days, students had to demonstrate their basic competence before being articulated by completing a preliminary examination that covered a range of subjects including English composition, algebra, English history, geography and Latin (no material directly relevant to Ireland was included in the early examinations). Exemption from the preliminary examination was afforded to university graduates and those who had passed specified state examinations (Robinson, 1983, p.210). Once articulated, prospective members were required to pass Intermediate and Final professional examinations, with both examinations containing a number of papers covering a variety of subjects.

The Intermediate and Final examination system remained in place until 1960. A restructured system of professional examinations, consisting of five levels (Parts I –V) was introduced in 1961. The preliminary examination was discontinued in 1962 since by that time, the majority of student members were gaining exemption on the basis of previous educational achievement and so only those who had failed to pass other examinations were taking the preliminary examination.

A four stage system of examinations was introduced in 1974, comprising two Foundation Examinations and two Professional Examinations. In 1982 another change was made: the four level system remained but was re-designated as three Professional Examinations (Professional 1, 2, 3) and then the Final Admitting Examination (FAE). However, it was the nature of the change in the examination papers for the final level of examinations (i.e. the FAE), that was the most significant aspect of the 1982 change. Two of the papers within the FAE were set as single subject papers but the remaining three papers were multi-disciplinary case studies. Since the 1982 structure was put in place the changes to the examination system have been minor. In 1999, the Professional 1 examination was discontinued and the route for school leavers via the Institute of Accounting Technicians in Ireland (IATI) was established. The only other recent change to the examination system was the reduction in the number of papers within the FAE to four and also subject coverage which will be explained below.

Over the years revisions to the subjects covered within the ICAI's examination system have been made. The first final examination covered areas such as Commercial Accounts, Auditing, Executorship Accounts, the Law of Bankruptcy and reflected the main areas of business of the practising firm (Robinson, 1983, p.212). On the whole, the changes made over the years have reflected the changing work profile of accounting firms. For example, auditing received more attention in the examination system as auditing replaced bankruptcy work within firms, and taxation was first introduced to the examination syllabus in 1921 as the importance of taxation services increased. However, while new topics were introduced slowly e.g. taxation, there has been a reluctance over the years to remove topics of past expertise. This time lag in responding to changes in professionals' work activities has characterised many professional accountancy bodies (see Carey 1969, for discussion of the experience in the USA). In addition, there was reluctance to introduce subject areas that related to management activities or the work of accountants outside practising firms, as is demonstrated by the case of cost and management accounting.

During the First World War manufacturing capabilities and production efficiency were of great concern to the British government. Cost information and management expertise were perceived as central to the War effort. The government looked to the professional accountancy bodies of the time to assist in the effort. However, while Chartered Accountants completed the necessary tasks, they did so somewhat reluctantly "being more at home in the counting house than on the floor of the factory" (Robinson, 1983, p148). The failure of the existing bodies to exploit this new avenue of work prompted the formation of a new professional body 'The Institute of Cost Accountants Limited', which developed expertise in cost and management accounting (forerunner of CIMA). It is interesting to note that, while ICAI did cover cost and management accounting within its examination syllabus from 1921 it was only a part of the Commercial Accounts paper. It was not until 1955 that it was designated as a subject deserving of a paper in its own right.

This lack of initiative on the part of the ICAI, ICAEW and ICAS to contribute to the development of management accounting practice appears to be symptomatic

of their general reluctance over the years to concern themselves with management activities (Robinson, 1983, p145). This reluctance is reflected in the syllabi of ICAI. While general commercial knowledge had been included from an early stage in the syllabi, coverage of developing management practice such as Human Resource Management, Production Planning and even accounting and finance related areas such as Treasury Management has been limited. The focus of the syllabi has remained on technical accounting, auditing and taxation, even with the more recent syllabi changes i.e. 1974 and 1982. This traditional practice focus continues despite the growing percentage of members who work outside practice and, indeed, the increasing importance of consultancy and advisory services within accounting firms. It is interesting that subjects such as Business Strategy and Business Ethics have only achieved prominence in ICAI syllabi since 1997 (ICAI, 2001a).

ICAI has consistently used terminal written examinations to assess students' knowledge, though the format of these examinations has undergone some change. Professional accounting programmes are traditionally associated with large volumes of technical material and examinations that are characterised by time pressure (Power, 1991). ICAI prides itself on being the first of the professional accountancy bodies in Ireland or Britain to utilise multidisciplinary case studies within the examination system (Gibson, 1988, p.9). As mentioned previously, since the 1982 syllabi revision three papers within the FAE have been case study based covering a wide variety of subject areas (the first sitting of the multidisciplinary examinations was in 1985). The objective of this examination approach is "to test the future chartered accountant and his capability to react to real world situations" (Gibson, 1988, p.9). At the same time as introducing the case study approach, it was also decided that all papers within the FAE were to be taken in an open-book environment. Again, this change was motivated to reflect the real working environment of the professional accountant. In addition, it was an objective of the new case-based examination to assess a broad range of skills, such as analytical and problem-solving skills, professional writing skills, and the integration of knowledge from different subject areas. It is interesting that, in recent years, without any demonstrable discussion the multi-disciplinary aspect of the FAE appears to have been reduced in that two of the case-study papers now

relate to specific subject areas and only one paper is classed as multi-disciplinary. These recent changes do not appear to have been widely publicised and the reasons for them are unclear. As identified above the motive in introducing interdisciplinary papers was to reflect the real world work environment of the professional accountant. Today, the complexity of the accountant's work environment has increased but the ICAI has reduced the multidisciplinary aspect of the FAE with no explanation.

The 'Personal Computing for Accountants' (PCA) programme reflects another area of innovation of the ICAI in assessing the professional competence of prospective members is. This programme was introduced in 1988 (from 1988-1993 it was known as 'Microcomputers and Accounting' programme) and all prospective members are required to pass this hands-on programme. The programme covers word-processing, spreadsheets, database systems and integrated accounting software and the examination is practical in nature. While the ICAI was one of the first professional bodies to introduce a practical computing skills programme it may still be said to have been tardy in its response to the important developments of computing in the workplace. Mainframe and microcomputers had been widely used since the 1970s and professional accountants in industry had been adapting to this work environment without educational support from their professional body. Hands-on computing skills had also been included in many university accounting and business programmes since the early 1980s. A recent study of the ICAI's PCA programme reveals that prospective members perceive they acquire new skills or improve their existing computing skills by completing the PCA programme. However, they contend that more advanced material should be included in the programme and integrating computing skills into other areas of study should be considered (McCourt Larres and Oyelere, 1999).

The ICAI has had a long and fruitful relationship with Irish universities and has always recognised the value of attracting university graduates to the profession. On its formation, it afforded graduates exemption from the preliminary examination (Robinson, 1983, p.62). At the time of the introduction of the new five part examination system in 1961, accounting studies at the universities were

well-developed and, in 1966, it was agreed that graduates of approved university degree programmes would be afforded exemption from Parts I–III of the Institute's examinations. In so doing, the ICAI hoped to boost the number of graduates joining the profession (Robinson, 1983, p.299). In this regard the blanket exemption appeared successful, as in 1972 the ICAI had a graduate intake of 59% (Robinson, 1983, p. 300). However, soon after it became evident that the blanket exemption afforded to such graduates was giving rise to some problems, as some students were encountering difficulties with the remainder of the professional examinations. Therefore, in the 1970s the blanket exemption was removed and instead graduates were afforded a paper-for-paper exemption based on evidence of material covered and grades achieved.

Over the years the ICAI has worked in conjunction with the universities to develop new courses to enhance accounting education in Ireland. In the 1980s, post-graduate accounting programmes were introduced which facilitated accounting and business graduates to develop further their accounting education within the university environment. Graduates of such programmes are afforded further exemptions from the professional examinations. In addition, post-graduate conversion courses for non-accounting graduates were developed in the universities¹⁰. The ICAI's desire to work with universities and other third level institutions was perhaps originally motivated by its lack of resources to develop a full independent education programme for prospective professional accountants (Byrne and Flood, 2003). Indeed, until the formation of the 'Centre for Accounting Studies' (CAS) within the ICAI in the late 1970s, there was no system of support for students preparing for the professional examinations (Robinson, 1983, p.216). Some *ad hoc* lectures occurred, though they were often less than successful, and most students looked to the private colleges, and sometimes to

¹⁰ It should be noted that while there is a close relationship between the ICAI and Irish universities, it is not a partnership arrangement. In other words, the universities are not simply conducting the early education of students who will then progress to the ICAI to complete their professional education and training. The university programmes are independent and are complete in their own right as are degree programmes in other disciplines. The universities are conscious that many of the graduates of accounting and business programmes will consider becoming student members of the ICAI and so they are anxious to ensure that the exemptions awarded to their graduates are as favourable as possible. However, the universities do not place the gaining of professional exemptions as their key objective in programme development, rather they are subsidiary to the principal objectives of delivering and facilitating a quality educational experience.

their local societies, for assistance when preparing for their examinations. In addition, the syllabus information provided to students was very limited. It was not until the 1974 revision of examinations that a detailed syllabus, setting out the material to be covered, the objectives of each paper and recommended reading, was presented to students (Robinson, 1983, p308). With the development of CAS a well-structured approach to supporting students was initiated. Today, a programme of lectures, tutorials and mock examinations is provided for students in centres around the country, e.g. Dublin, Belfast, Cork and Galway. Materials for distance learning and other support are also provided for students in other parts of the country and for students working abroad (Byrne and Flood, 2003).

4.4.3 The ICAI's pre-qualification education system, the future and the need for student-centred learning research

In many respects, particularly when compared to other professional accountancy bodies, the ICAI has been quite innovative over the years in the development of its pre-qualification education system. In the 1980s, the establishment of the FAE as a multi-disciplinary, open-book, cased-based examination was ground breaking. Similarly, the ICAI was one of the first professional accountancy bodies to require all prospective members to complete a hands-on computing skills module. Through its good working relationships with the higher education sector and its entry into the provision of courses for students preparing for its examinations, ICAI has engaged in accounting education in a way that few other bodies have done.

The ICAI is a participating member of IFAC and has endorsed (in its statements, at least) the recommendations of the IFAC pre-qualification education guideline (IFAC, 1996). Objectives of the educational programmes and examination syllabi and their public relations documents espouse the need of an expanded knowledge and skills base for prospective accountants and the importance of learning to learn and adapting to change (Lynch, 1994; ICAI, 2001a). However, it appears that in substance little has changed in the last decade in the education of prospective members of the ICAI. Many syllabus changes have been introduced but there has been no substantive review of the education structures and systems. No significant

changes have been introduced in the way the ICAI's education programmes are conducted or in the form of assessment of professional competence. In 1999, the ICAI established a 'New Horizons Working Party' to assess the educational challenges and opportunities of the 21st century and to devise responsive strategies. While the work of this committee has been delayed quite significantly due to unforeseen circumstances, it appears that it intends to focus primarily on syllabus review in order to ensure that prospective members are appropriately prepared for the future (Walsh, 1999). Evaluating the opportunity to increase the use of information technology in educational provision within the ICAI's pre-qualification programmes also appears to be on the agenda of the working party. In addition, it plans to consider the issue of greater "front-loading" in the education process "to produce trainees who are more mature and skilled when they commence employment" (Walsh, 1999). There are no indications that an examination of student learning issues will be conducted which could provide a framework for future changes which would enhance the quality of student learning.

There is already some evidence which indicates that the ICAI's pre-qualification education system is not encouraging the type of deep, engaged learning which is aligned with the knowledge, understanding and skills which the profession desires of prospective members. The researcher was involved in a project with colleagues at her university in 1999 which explored graduates' experiences at university and the contribution of their degree programme to their subsequent careers (unpublished report). The majority of graduates subsequently qualified or, were in the process of qualifying, as Chartered Accountants with the ICAI. Thus, as the graduates discussed their experiences at university, some comparisons were made with their experiences in attending the ICAI's education programmes and in preparing for examinations of the ICAI. The majority of comments concerning the pre-qualification programmes of the ICAI centred on the volume of material students had to deal with and also the time pressure experienced whilst studying and during the examinations themselves. The students viewed the ICAI programmes as technically oriented, providing little scope for discussion, analysis or the development of deep understanding. The students appeared to see professional qualification as a hurdle and they generally adapted their study

methods and approaches in the manner they thought was most likely to lead to success. While this research project focussed primarily on graduates' university experiences, the comments made concerning their subsequent professional education are interesting. Hanlon (1994, p.114), in examining the way in which the accountancy profession works in Ireland and how it has changed with economic development, interviewed many members of the ICAI and identified a similar theme regarding the education system. He contends that the ICAI's education system encourages rote learning over discursive educational values and that the professional examinations "are seen as an obstacle to be overcome rather than as a means of enlightenment" (p.114). Therefore, justifiable concern exists that the ICAI's education system does not encourage students to adopt deep approaches to learning or foster an ethos of lifelong learning.

If the ICAI and other professional accountancy bodies seriously wish to implement the recommendations of the IFAC guidelines and focus on developing high quality learning outcomes (knowledge and skills) among students, then there is a need to understand how their students learn and how the learning environment which they create for students, influences that learning. Indeed, a thorough appreciation of all dimensions of existing programmes or systems is required if meaningful improvements are to be made in the future (Beaver, 1992). Ramsden (1992, p.65) warns:

Tinkering with what are assumed to be necessary skills without considering the learning context and the meaning of learning to students is worse than useless.

Thus, if ICAI, or any other professional accountancy body, changes elements of its education system in the hope of improving students' knowledge or skills, but fails to examine the student learning process in the context of its particular learning environment, then the changes made could be fruitless.

This study aims to reduce the student learning research deficit in the domain of pre-qualification professional accounting education by exploring how students experience learning when preparing for the FAE of the ICAI. The literature concerning professional competence and the accounting education change debate have highlighted the need for prospective professional accountants to develop

high quality learning outcomes, in terms of demonstrating both a deep understanding of accounting and related issues and a complex set of skills. This study will examine how students prepare for the FAE: their motivations, intentions to seek understanding and their detailed study activities. It will explore students' perceptions of factors in the learning environment which influence their learning and their perceptions of the outcomes of the FAE process. The orientation of the study and its approach are strongly influenced by student learning research in the higher education environment, but theories and concepts developed in that literature will only be used in this study if the research evidence supports their appropriateness in the particular context under review. Sensitivity to the learning context of the FAE is central to this study and the descriptions of the ICAI's pre-qualification education system presented in this chapter provide a certain degree of understanding of this context. However, it must be remembered that it is students' perceptions of the learning environment which influence their learning, rather than the objective features of that environment. Furthermore, it is important to recognise that students bring their own personal characteristics, preferences and prior learning and life experiences to any learning situation. Thus, in this study, students' experiences while training in accounting firms and their perceptions of the interplay of education and training and the impact of qualification in the workplace will be examined in the light of their influence on students' learning for the FAE. In summary, the advancement of pre-qualification professional accounting education requires research exploring students' learning in specific contexts, thus this study aims to address this need.

4.5 Summary

The ICAI is the largest and oldest accountancy body operating in Ireland and prides itself on developing top quality accounting and business professionals. The ICAI considers that its pre-qualification education and training system ensures that all new members are competent to maintain the quality of service expected of the profession in the future. In the ever-changing environment in which professional accountants work and with the increasing rate of knowledge obsolescence, the need for prospective professional accountants to develop the

ability to adapt to change and to continue to learn throughout their professional lives has been widely acknowledged internationally. In keeping with international guidance, the ICAI espouses the need for all its prospective members to develop such abilities during their pre-qualification education. However, as with professional accountancy bodies internationally, there is a rhetoric-reality gap. In other words, there has been little change over the past ten years in the ICAI's pre-qualification education programme to suggest that the body is serious about developing the said attributes and abilities among prospective members.

The ICAI is currently reviewing its pre-qualification education system, but to date there has been no attempt to consider student learning issues and the learning environment in the review process. It would appear that to develop professional competence, embedded in the transdisciplinary knowledge and abilities espoused by the accounting profession, it is important that the students develop a high level of understanding of the core principles and concepts of accounting that underpin existing practice and which are likely to frame future changes and developments. Hence, it is essential that the education system encourages prospective members to adopt deep approaches to learning. However, to date no research has been conducted to evaluate how prospective members of the ICAI currently approach their learning and what variables in the learning environment encourage them to learn in the ways in which they do. At a time when a review of the ICAI's education system is ongoing and changes to that system may be recommended, it would appear that the development of an understanding of the impact of the current education system on student learning would be a very valuable, and one might say necessary, input to the review process.

This study aims to develop such an understanding. The following chapter explores methodological issues pertaining to the study.

CHAPTER 5

RESEARCH METHODOLOGY

- 5.1 Introduction**
- 5.2 Broad objectives of the study**
- 5.3 Philosophical assumptions underpinning research**
- 5.4 Quantitative versus qualitative research approaches**
- 5.5 Philosophical assumptions and research approaches in the context of the current study**
- 5.6 Summary**

5.1 Introduction

The basic aim of this study, as indicated in earlier chapters, is to develop an understanding of students' learning as they prepare for the FAE of the ICAI. The previous chapters have set out the framework and setting of this study, thus the purpose of the current chapter is to examine the objectives of the study and to explicate and justify the research approach and methods which are employed to achieve the delineated objectives. Inextricably intertwined with these goals of establishing research questions and selecting research methods, is the need to consider the philosophical assumptions underpinning the study.

The research process, at least in the view of the researcher, is not simply a series of linear steps which, if completed, will generate the desired output. Rather, it is a complex process which seems to embrace a constant learning loop, where the researcher never ceases to reflect. Each step of every phase of a research project requires reflection in the form of re-thinking, re-conceptualising, re-examining or re-analysing previous aspects of the study. This process of reflection and learning seems particularly acute when considering the domain of research methodology at the point of research design. In so much published research, research questions and methods are clearly and concisely presented in a way that might imply that these key decisions, which are intrinsic to the study, were easily made. There is rarely any elaboration on the process of aligning research aims, research design (methods of data gathering and modes of analysis) and conclusions. Furthermore, while the majority of reported research in academic journals, monographs, reports and books clearly outlines the research questions asked and research methods pursued, few explore the ways in which these decisions are embedded in the philosophy of science. Indeed, an exploration of philosophical assumptions underpinning core choices in the research process appears to be only explicitly acknowledged in research projects the goals of which in some way pertain to the field of methodology or, indeed, in theses submitted for research degrees.

For this researcher the explication of research objectives and the selection and justification of research methods acknowledging the philosophical assumptions intertwined with these decisions was a thought-provoking process. The research

project was initiated with a desire to explore the field of student learning in the domain of professional accounting education, but the researcher had little knowledge of how philosophical issues such as epistemology and ontology would influence the questions that the study would seek to explore or the methods that would be chosen to achieve those objectives. To present the process of determining the research questions and methods which ultimately framed this study, the remainder of the chapter will be structured as follows. Firstly, the preliminary thinking of the researcher regarding the over-riding objective of the study is presented. Secondly, the different categories of philosophical assumptions which underpin any research study are explored. Thirdly, the alignment of different philosophical persuasions with both quantitative and qualitative research methods is examined. Then these issues of philosophy and methodology are considered in the light of the broad objectives of the current study, and ultimately the specific objectives of this study are delineated and the identification and justification of appropriate research methods are outlined. It is hoped that the presentation of this chapter will illuminate the iterative process which supported the explication of key choices in the research process.

5.2 Broad objectives of the study

It is clear from the literature reviewed in Chapter 4 that the role of the professional accountant and the activities and tasks in which he/she is involved in the workplace have changed considerably, and at an ever-increasing rate, over the last century. Additionally, it is evident that, despite this dynamism in the domain of professional accounting, the system of educating prospective professional accountants has not changed substantially over the years. At the beginning of the 21st century, the ICAI is again reviewing its pre-qualification education system. However, like so many review and change programmes instigated previously by the ICAI and other professional accountancy bodies, this review does not appear to involve an exploration of students' experiences of learning within the various pre-qualification programmes. Failure to embrace research on students' learning would appear to be a glaring oversight if the ICAI seriously wishes its students,

through its various education programmes, to achieve high quality learning outcomes.

As briefly explained in Chapter 1, the ICAI has been selected as the setting for this study because it is the oldest and largest professional accountancy body operating in Ireland. Also, the researcher is a member of the body and has some contacts with its Education and Training directorate. FAE students of the ICAI have been selected as the particular subjects of this study for a variety of reasons. Firstly, the FAE is the only examination within the ICAI system which all prospective future members must complete. As explained in the previous chapter, no prospective member of the ICAI can be exempt from the FAE (see section 4.4.2). Secondly, the FAE differs from other written examinations in that it is multi-disciplinary in nature, the papers are case-based and the examinations are completed on an open-book basis. Finally, the FAE is the only ICAI examination which the researcher completed and so her insight and personal experience of the ICAI education process is limited to this examination.

As delineated in Chapter 4, the ICAI, like other professional accountancy bodies, wishes its members to be competent professionals throughout their professional lives, adapting to change as accounting regulation and the accounting environment evolves. Professional accounting education (both pre-qualification and continuing) must support members as lifelong learners. In particular, pre-qualification programmes need to encourage students to develop a deep understanding of the core principles and concepts which underpin accounting practice and to foster the abilities of, among other things, applying and integrating knowledge, critical thinking, problem-solving, reflection and independent learning. However, given the dearth of research on the student learning process in the domain of professional accounting education, there is no framework which allows consideration of how pre-qualification education needs to be designed and delivered in order to encourage and support students to learn in ways which will be appropriate for the achievement of the desired outcomes. It may very well be the case that the models of the student learning process developed in the higher education context are applicable, with modification, in the professional accounting

education domain, but such issues have not been previously explored in any in-depth manner. This study hopes to reduce this research deficit.

Student learning research in the higher education environment has shown that variation in students' learning outcomes is related to the approaches to learning which students adopt as they set about learning tasks. As examined in Chapter 3, the deep-surface dichotomy is used in the higher education field to operationalise the concept of a learning approach. It has been clearly demonstrated that students who achieve high quality learning outcomes, in terms of developing deep understanding of relevant subject matter, have adopted deep approaches to learning, whereas those who achieve poor quality outcomes have adopted surface approaches. There has been some research extending the use of these categories of description and the instruments used to measure learning approaches beyond the traditional higher education field in which they were developed. Richardson (2000) explores whether the categories of description are suitable for use with non-campus based students, typically students participating in distance education programmes. Through interviewing students he concludes that non-campus based students exhibit the same qualitative differences in learning approaches as do traditional campus based students. Thus, he considers the use of instruments such as the ASI appropriate for measuring the approaches to learning of non-campus based students. Hassall and Joyce (1997, 1998 and 2001) use the deep-surface categorisation in a study of CIMA students worldwide. They use a version of the ASI to measure the approaches to learning of CIMA students at various stages in the examination process. However, the consideration of the appropriateness of the descriptors with this group of students was not reported. This study will explore students' learning approaches in the professional accounting domain and will consider whether the categories of description developed in the higher education context adequately capture the variation in FAE students' descriptions.

Students' learning approaches in the higher education context have been found to be influenced by both personal variables associated with the students and their perceptions of a whole range of variables in the learning environment. Indeed, as outlined in Chapter 3, considerable research has been conducted exploring the factors which influence the learning approaches of students in different contexts

and in different disciplines and many education change programmes have been shaped by such research findings. However, pre-qualification professional accounting education seems to have benefited little from such research. While it is readily recognised that the context of professional accounting education may differ in many ways from the higher education setting, thus eliminating the possibility of transferring the research findings directly, it would seem that professional bodies could learn much from embracing the thrust of the higher education research by instigating student learning research as part of their review and change programmes.

Thus, the basic and overriding objective of this study is to explore the student learning process in the context of one of the professional accountancy bodies in Ireland, namely the ICAI. The research aims to develop an understanding of how students learn when preparing for the FAE of the ICAI, to consider the factors which influence their learning, and to explore the nature of outcomes achieved by the students on completion of the education programme. Specific objectives are not presented at this point as further delineation of the research objectives requires consideration of the categories of philosophical assumptions which are embedded in different research traditions. Philosophical considerations will affect the nature of the specific objectives which the study will explore and will affect the research approach and the research methods which will be selected in order to achieve the research objectives (Covaleski and Dirsmith, 1990; Gill and Johnson, 1997, p.132). Thus, the next section of this chapter examines the basic philosophical assumptions which underpin any research study.

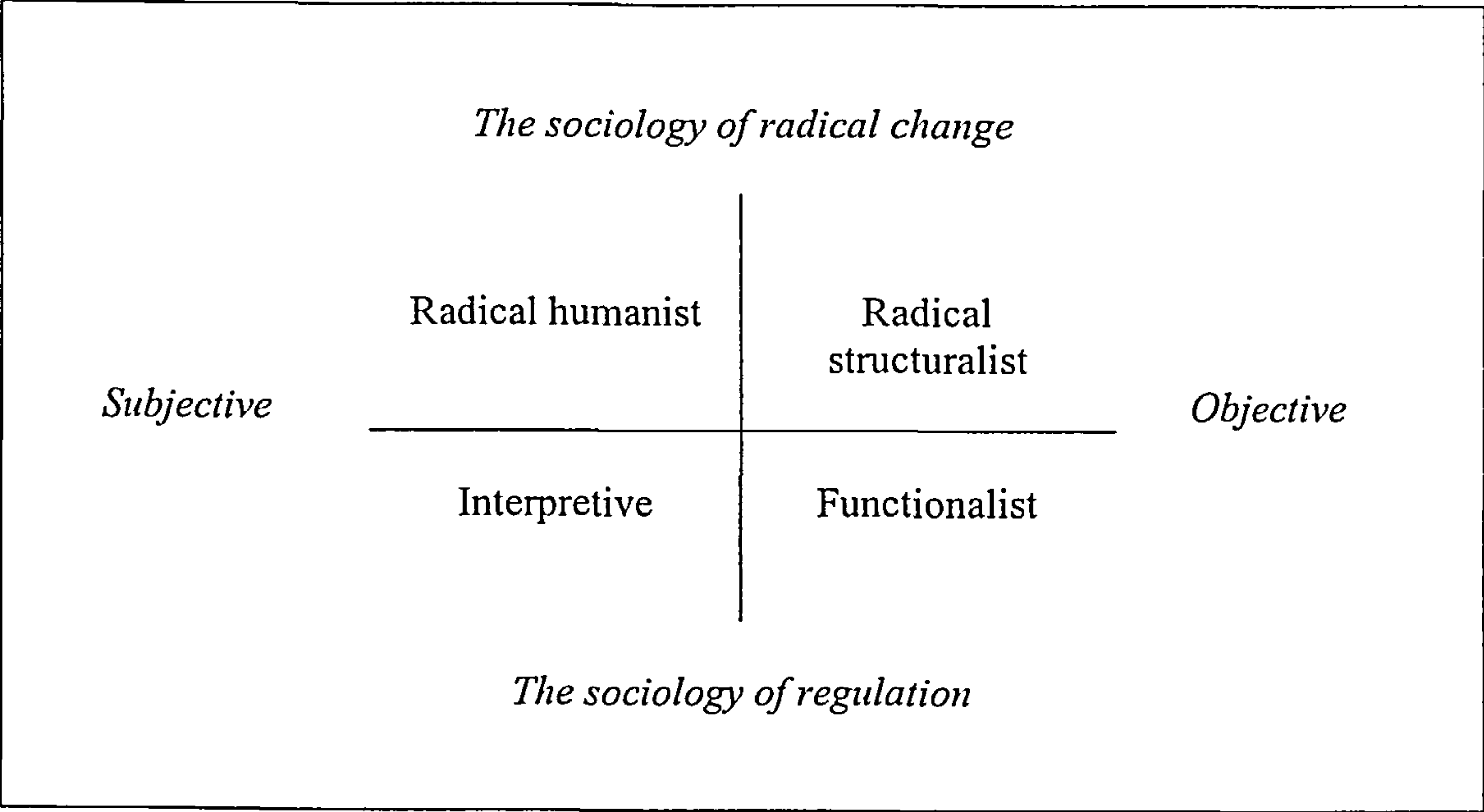
5.3 Philosophical assumptions underpinning research

In conducting any piece of social research, the researcher makes assumptions about the nature of the social world and how it can be investigated. Sometimes these assumptions are not explicitly stated but they may be identified through the research questions posed and the research approach adopted in the study, as all studies of society occur in some frame of reference. The variety of assumptions that the researcher can make about the social world has led to the development of

a vast array of theories, perspectives and approaches for conducting research. To the uninitiated, this complex field of research thought can be a minefield. Indeed, this researcher needed to regularly revisit and reflect on a voluminous body of readings in order to attempt to coherently communicate the basic issues pertaining to the philosophy of science. To explicate the journey of this researcher through the field of research methodology, the matrix of philosophical paradigms developed by Burrell and Morgan (1979) is used as the keystone in this section. The philosophy of science and research methodology literatures are replete with schema for examining the variation of philosophical positions which can be embedded in any research study (e.g. Easton, 1995; Creswell, 1998; Lincoln and Guba, 2000) but the Burrell and Morgan approach is chosen here as its basic simplicity is appealing to the researcher. Furthermore, the paradigm matrix seems to capture, in a logical and understandable manner, the range of philosophical parameters addressed in the range of material consulted. Easton (1995, pp.413-415) contends that the benefits of using such a schema to explore philosophical assumptions underpinning a research study are twofold. Firstly, it provides a checklist for the researcher of factors to consider when making methodological choices and, secondly, it provides an appropriate mechanism to structure methodological discussion in the presentation of the research project, and ultimately makes “explicit the implicit dimensions underlying the choices researchers make perhaps unconsciously when deciding on methodology” (p.413).

The Burrell and Morgan (1979) matrix attempts to delineate the differences between the different schools of research thought by identifying two dimensions for analysing social theories – the objective-subjective dimension and the dimension of sociology of regulation versus sociology of radical change - leading to the identification of four main paradigms for understanding and researching the social world. The matrix is presented in Figure 5.1 and each of the elements is briefly examined in turn.

Figure 5.1: Researching the social world: two dimensions – four paradigms



Source: Burrell and Morgan, 1979, p.22

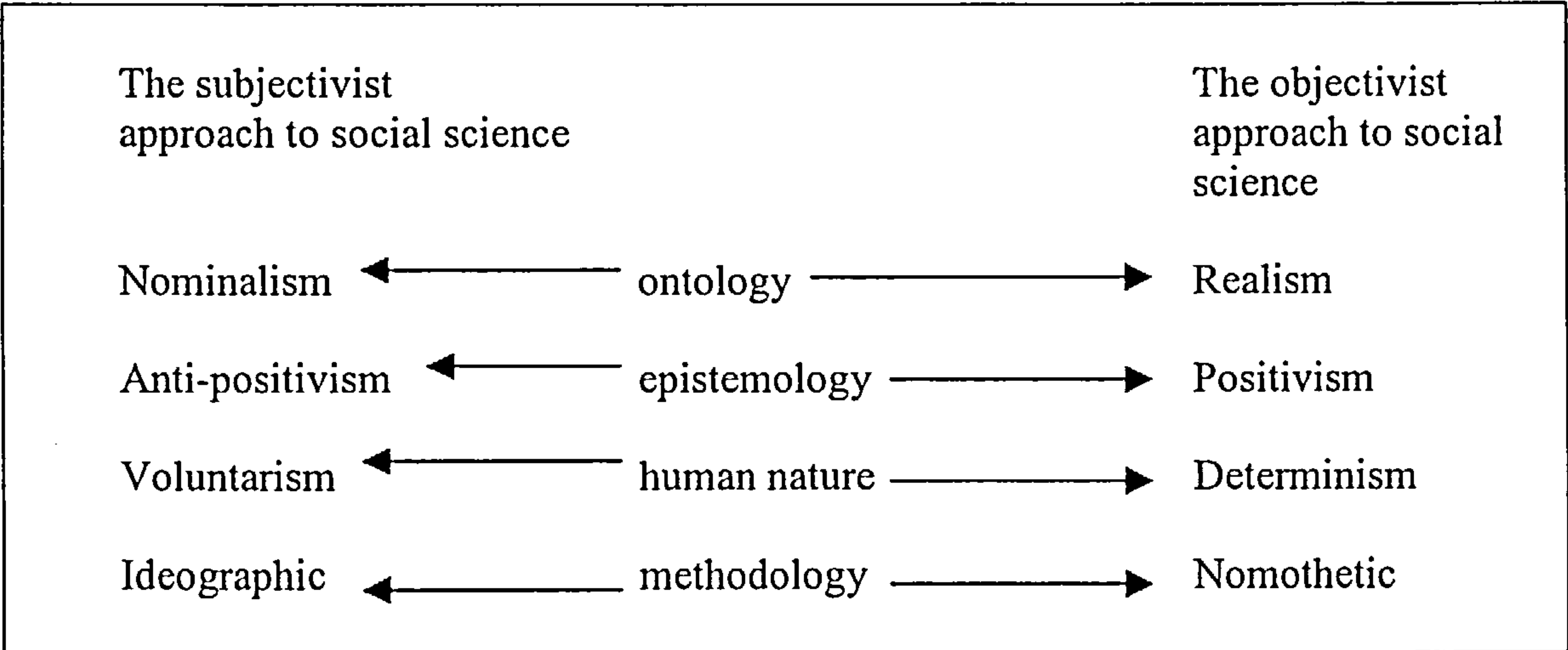
The subjective – objective dimension

Burrell and Morgan (1979) use the label of the subjective-objective dimension to describe the commonality between the four assumptions relating to ontology, epistemology, human nature and methodology which underpin social science. They identify the four extreme positions relating to each assumption and describe these as being the subjective approach and the objective approach to social science as is shown in Figure 5.2.

Ontological assumptions are concerned with the theory of existence and the nature of reality (Bullock et al., 1988, p.605); they are assumptions which concern “the very essence of the phenomena under investigation” (Burrell and Morgan, 1979, p.1). The nature of reality debate centres on whether reality is external to an individual or is an internal manifestation of one’s consciousness. The realist perspective posits that there is a real world of tangible structures external to the individual and these external structures are empirically identifiable and measurable. Thus, the realist position contends that the social world has a reality independent of individuals’ cognition and the phenomena being investigated are independent of the researcher (Chua, 1986). On the other hand, the nominalist

position contends that reality is a product of individuals' cognition and that the social world beyond this cognition is nothing more than “names, concepts and labels which are used to structure reality” (Burrell and Morgan, 1979, p.4). In other words, nominalists believe that social reality is constructed by those participating in the social world and there is no single objective truth (Denzin and Lincoln, 2000, p.23; Schwandt, 1994, p.118).

Figure 5.2: A scheme for analysing the assumptions about the nature of social science



Source: Burrell and Morgan, 1979, p.3

Epistemology concerns ways of knowing. It embraces one’s beliefs about the foundations of knowledge, the nature of knowledge and how one develops an understanding of the world. Positivism stands at one end of the epistemological spectrum and represents a certain philosophical persuasion which is operationalised in a set of rules and evaluative criteria referring to human knowledge (Kolakowski, 1993, p.2). While many different versions of positivism can be located in the literature, it is basically a philosophy which proclaims the suitability of the research approaches developed in the natural sciences to all forms of knowledge (Bryman, 1988, p.14). A positivist perspective treats the foundation of knowledge as the “evidence of the senses” (Hammersley, 1993, p.17) and seeks to “explain and predict what happens in the social world by searching for regularities and causal relationships between its constituent elements” (Burrell and Morgan, 1979, p.5). Positivists generally view the

development of knowledge as a cumulative process, whereby new knowledge is generated by hypothesis testing, leading to the establishment of universal laws or theories. Anti-positivists reject the approach of searching for regularities and unifying laws in the social world. They do not accept the positivistic idea of knowledge as objective, tangible and capable of being transmitted, rather they consider that knowledge is something which must be experienced personally (Morgan and Smirich, 1980, p.493). Thus, the anti-positivist views the social world as basically relativistic and argues that understanding aspects of that social world can only be developed by examining it from the perspective of the subjects/individuals under investigation (Burrell and Morgan., 1979, p.5; Hammersley, 1993, pp.19-22). While the positivist approach is characterised by a clear set of underlying principles and tenets (e.g. unity of science, value freedom, measurement, unifying laws, etc.), the anti-positivist movement embraces a much more diversified and heterogenous trend in the philosophy of science (Von Wright, 1993, p.10).

Positivist epistemology is embedded in the research approaches favoured in the natural sciences and this 'scientific model' has strongly influenced research in the social sciences (Hammersley, 1993, p.10). Outhwaite (1996, p.84) contends that the embrace of positivism by social researchers had much to do with the spread of the views of the 'Vienna circle'. This eminent group of researchers were logical positivists and believed in the unity of the sciences, the importance of empirical testing and the need to maintain value-freedom in social science research. The scattering of these researchers to different parts of the world at the time of the Second World War, ensured that their research approaches were "hegemonic" in the English-speaking world during the middle decades of the 20th century (Outhwaite, 1996, p.84). Today, positivism still dominates in the natural sciences, whereas much social science research embraces alternative epistemologies and related methodologies. However, while the conscious use of many qualitative methods associated with the anti-positivist philosophical persuasions can be traced to the 19th and early 20th centuries (Taylor and Bogdan, 1984, p.3), their exemplification in major research journals has only really gained momentum in more recent years (Van Maanen, 1982, p.11).

The human nature assumptions within the objective-subjective schema concern the extent to which an individual's actions are influenced by the world around him/her. The extreme positions on the human nature continuum vary from the determinist perspective to the voluntarist perspective. Determinism views an individual's activities as being determined by his/her situation or environment whereas voluntarism contends that man is completely free-willed (Burrell and Morgan, 1979, p.6).

The methodological debate embraced by the Burrell and Morgan (1979) framework relates to assumptions on how to gain new knowledge and how an understanding of the world can be developed. Two contrasting methodological approaches are a nomothetic and an ideographic approach. The nomothetic approach is concerned with systematic research and typically involves the testing of hypotheses using quantitative techniques, leading to the establishment of universal laws. In nomothetic approaches the researcher is distanced from the research subject. Nomothetic approaches are dominant in the natural sciences whereas, within the social sciences, they do not hold the same sway. However, practically every discipline within the social sciences has been touched to a certain degree by such methods and, indeed, some areas of psychology, economics and business research have been heavily influenced by the scientific model (Hammersley, 1993, p.33). The ideographic approach considers that one can only “understand the social world by obtaining first hand knowledge of the subject under investigation” (Burrell and Morgan, 1979, p.6). Commonly this approach entails the evolution of the research as the study unfolds and the researcher is commonly characterised as aiming to ‘get inside the situation’ or to ‘get close to the subject’. The ideographic approach sharply contrasts with the nomothetic approach in its perspective on the generalisability of its research findings. While the nomothetic approach is guided by the search for universal laws, the ideographic approach at the extreme considers that knowledge can only be gained about a particular situation or context. Thus, while social researchers are often philosophically more closely aligned to ideographic approaches, their desire to seek the application of, or at least the consideration of, research findings beyond the specific subject studied propels them to veer away from ideographic

approaches at the extreme and to embrace methods at other points on the nomothetic-ideographic continuum (Hammersley, 1993, pp.33-35).

The consideration above of the four aspects of the subjective-objective dimension of the Burrell and Morgan (1979) matrix has, for explanatory purposes, identified the extreme positions with regard to each assumption. It should be recognised that many intermediate positions exist on each spectrum. Furthermore, while it would seem likely that the philosophical persuasion of the researcher would lead to obvious relationships across the four assumptions, for example being a realist and a positivist, Burrell and Morgan (1979, p.7). caution that “assumptions about each (of the four assumptions) can in fact vary quite considerably”.

The sociology of radical change - the sociology of regulation

This is the second principal dimension used by Burrell and Morgan (1979) to analyse social theories. The sociology of regulation is concerned with providing "explanations of society which emphasise its underlying unity and cohesiveness" (p.17) whereas the sociology of radical change seeks explanations for change and is concerned with emancipation from structures and regulations. The characteristics associated with both perspectives are set out in Table 5.1.

Table 5.1: The regulation - radical change perspectives

<i>The sociology of regulation is concerned with:</i>	<i>The sociology of radical change is concerned with:</i>
(a) The status quo	(a) Radical change
(b) Social order	(b) Structural conflict
(c) Consensus	(c) Modes of domination
(d) Social integration and cohesion	(d) Contradiction
(e) Solidarity	(e) Emancipation
(f) Need satisfaction	(f) Deprivation
(g) Actuality	(g) Potentiality

Source: Adapted from Burrell and Morgan, 1979, p. 18

Unlike the four assumptions constituting the objective-subjective dimension, Burrell and Morgan argue strongly that the sociology of regulation and the sociology of radical change are not end points on a continuum. Rather, they contend that the two perspectives are polarised dimensions that are separate and distinct from each other and the sociological perspective of the researcher will influence the purpose of the research study, the nature of the research questions asked, the methods chosen and the presentation of the research findings. This dimension echoes the work of Habermas (1978) relating to different interests and perspectives when researching the social world. Habermas contends that the nature of the researcher's human interest will lead to the use of different research methods and the establishment of different types of knowledge pertaining to social reality¹.

The interaction of the regulation-radical perspectives with the subjective-objective dimension creates Burrell and Morgan's (1979) matrix of four paradigms of social theories - radical humanist, radical structuralist, interpretive and functionalist paradigms (see Figure 5.1). Each paradigm shares characteristics with its neighbours, horizontal and vertical. However, each paradigm has unique aspects. The benefit of Burrell and Morgan's scheme is that it facilitates the grouping together of research which has been approached with similar assumptions, but it doesn't mean that identical assumptions and standpoints will be adopted in all research studies falling within the paradigm. Rather,

The four paradigms taken together provide a map for negotiating the subject area, which offers a convenient means of identifying the basic similarities and differences between the work of various theorists and, in particular, the underlying frame of reference which they adopt. It also provides a convenient way of locating one's own personal frame of reference with regard to social theory, and thus a means of understanding why certain theories and perspectives may have more personal appeal than others (Burrell and Morgan, 1979, p.24).

While Easton (1995, p.426) supports the view that a scheme for exploring philosophical issues underpinning research facilitates the researcher's explicating

¹ A researcher may have: (a) an interest in technical control and administration, (b) a practical interest in human interactions, (c) an emancipatory interest. As a critical theorist, Habermas (1978) contents that emancipatory knowledge transcends all other forms of knowledge in the light of understanding social reality.

his/her own philosophical persuasions, he feels that philosophical orientations might be better conceptualised as occupying multi-dimensional space as opposed to being located in a two dimensional paradigm matrix. However, he contends that the key issue in any analysis is to be able to identify the factors which distinguish different research approaches.

A detailed exploration of the differences in the four paradigms within the Burrell and Morgan matrix is beyond the scope of this study. However, later in the chapter the philosophical assumptions and perspectives of the researcher in the context of the current study will be examined and features of the appropriate paradigm will be elucidated. At this point, having briefly explored the primary philosophical issues pertaining to social research, the interaction of these issues with the quantitative versus qualitative debate is examined.

5.4 Quantitative versus qualitative research approaches

The debate surrounding the use of quantitative versus qualitative research approaches is a long-standing one. While some researchers favouring one approach have little interest in, or tolerance of, the alternative, others sometimes adopt different approaches in different studies or adopt a mixed-method approach to a single study. The purpose of this section is to briefly explore the variation in quantitative and qualitative research approaches and to delineate how the two approaches are suited to different types of studies. Ultimately, the examination of these two research approaches will develop the framework within which the appropriate research strategies for the current study can be selected.

During the 20th century, practically all of the social sciences have experienced a quantitative revolution (Hammersley, 1993, p.39). The domination of the research approaches of the natural sciences and their search for universal truth has led to much deductive research focused on hypothesis testing and the measurement of variables. Indeed, Bryman (1988, pp.21-40) describes the principal preoccupations of the quantitative approach to be the measurement of concepts, causality, generalisability and replication. Quantitative methods are primarily employed in

studies which are interested in developing generalisable results of relationships between variables which can be measured (Flick, 1998, pp.2-3). Furthermore, in using quantitative techniques, the researcher usually maintains a distance from the research subjects and the outcome of the research leads to the supporting or disproving of the specific hypothesis being tested. The main quantitative techniques in the tool bag of the researcher are surveys, experiments, analysis of official statistics, structured observation and content analysis (Bryman, 1988, p.12).

Proponents of qualitative research argue that quantitative research methods prohibit developing an understanding of the meaning of social phenomena (Gephart, 1999). In contrast, qualitative researchers focus on interpreting the world around them. They study things in their natural settings and attempt to make sense of phenomena by exploring the meaning that people bring to them (Denzin and Lincoln, 2000, p.3). The most fundamental characteristic of qualitative research is its commitment to viewing phenomena through the eyes of those experiencing those phenomena (Bryman 1988, p.61). Thus, the development of qualitative methods for use in the social sciences emerged to reflect and capitalise on the special and complex character of people who are the object of enquiry in social research (Bryman, 1988, p.3).

Covaleski and Dirsmith (1990, p. 543) describe qualitative methods as:

.... an umbrella term applied to a number of interpretive techniques directed at describing, translating, analysing and otherwise inferring the meaning of events or phenomena occurring in the social world.

The range of techniques which fall within the parameters of qualitative methods is extensive and the researcher will typically select those techniques that are aligned to the research questions and the research context. No single method is superior to any other (Denzin and Lincoln, 2000, p.6). Drawing on the work of Nelson et al. (1992) and Levi-Strauss (1966) among others, Denzin and Lincoln (2000, p.4) provide the analogy of the qualitative researcher as a 'bricoleur' and 'quilt maker'. The qualitative researcher as a 'bricoleur' is a do-it-yourself methodologist, choosing between research methods, mixing methods and developing new

methods to explore the specific questions posed in the particular setting. The data collection techniques which are embraced by the term 'qualitative methods' include observation, interviewing, focus groups and document analysis (Bryman, 1988, pp.45-50) and also there is a wide range of analytical approaches used to interpret the data collected (Patton, 2002). Additionally, it is viewed that qualitative methods are more flexible and adaptive than prescriptive quantitative techniques, as Taylor and Bogdan (1984, p.8) comment: "the methods serve the researcher; never is the researcher a slave to procedure and technique".

A further characteristic of qualitative research is the role of the researcher. As meaning making is the focus of much research embracing qualitative approaches, the researcher commonly engages with the research subjects in the process of data gathering and analysis. Supporters of qualitative approaches contend that this engagement and involvement of human senses in the research process (as opposed to the objectivity stressed in many quantitative techniques) allows interpretation of phenomena, leading to the discovery of new knowledge about the social world (Daft, 1983). Qualitative research methods also emphasise contextualism and holism, in other words, they aim to examine and understand phenomena in an integrative manner in their natural setting (Bryman, 1988, p.64). Flexibility is also a key feature in conducting qualitative research as the researcher generally operates with an open research strategy and adapts his/her research activities as the project unfolds. Unconventionality, too, can often characterise qualitative research, as the researcher is interested in the as yet undefined (Van Maanen, 1982, pp20-21).

The output of qualitative research is commonly a rich tapestry which describes and analyses phenomena in society. Denzin and Lincoln (2000, p.6) describe the outcome of the 'bricoleur's' labour as "a complex, quiltlike bricolage, a reflexive collage or montage - a set of fluid, interconnected images and representations". Furthermore, the findings of qualitative studies, when weaved into a compelling narrative, are often significantly more convincing and meaningful to readers than the statistical results of quantitative studies (Miles and Huberman, 1984, p.15).

There is no denying the intuitive appeal of a qualitative research approach for exploring many issues within the social sciences, but there is a need to be mindful of some of the problematic issues which may arise in conducting a qualitative study. Many of the issues which arise are generated by those accustomed to the quantitative tradition. Such researchers often question the validity and generalisability of research findings of qualitative studies (Miles and Huberman, 1984, pp.15-16). Lincoln and Guba (1999, pp. 397-444) contend that it is inappropriate to evaluate the research process and findings of qualitative studies using the conventional measures within the quantitative approach, e.g. internal and external validity, reliability and objectivity. Instead they contend that the rigour of qualitative studies should be reviewed by considering the issues of 'credibility', 'transferability', 'dependability' and 'confirmability', and, like many qualitative methodologists, they suggest how these characteristics can be embedded into qualitative studies. Thus, it is essential that the qualitative researcher in designing and conducting his/her study, and in the analysis of data and the communication of the findings, addresses these issues.

The issue of deciding on a methodological approach, in terms of the quantitative versus qualitative debate, is predicated on the philosophical orientations of the researcher and perhaps the discipline. Quantitative methods are commonly associated with the positivist tradition and an objective approach to research. However, Bryman (1988, pp.41-42) contends that the popularity of quantitative methods is aligned as much to a commitment to the practices of natural scientists as to the tenets of positivism. Those who adopt qualitative research approaches are often of quite different philosophical persuasions to those who adopt quantitative approaches. Qualitative methods are commonly associated with a researcher working within constructivist, interpretivist and critical paradigms.

It is clear that, having briefly explored the elements constituting different philosophical paradigms and the basic characteristics of quantitative and qualitative research approaches, the researcher must consider her philosophical persuasion and explore its interplay with the objectives of the current study. Thus, the next section of this chapter probes these issues.

5.5 Philosophical assumptions and research approaches in the context of the current study

Given the inextricable links between philosophical orientation, research questions and research approach, the persuasion of the researcher regarding these issues will be initiated by considering the sort of research questions which this study explores.

As indicated in Chapters 2-4, research on students' learning within the professional accounting domain is severely limited. While professional accountancy bodies around the world have regularly reviewed and changed their pre-qualification education systems, little or no research has explored learning issues in these settings from the perspective of students. This is despite the fact that the higher education and, to a lesser extent, the professional and continuing education literatures, are replete with student learning focused research. Education research contends that changing education programmes and courses without knowledge of the context and meaning of learning to students is "worse than useless" (Ramsden, 1985, p.65). While the student learning research agenda has been readily adopted by many researchers in the accounting education field within higher education, there has been little expansion into the professional domain. This study hopes to contribute to the development of a student learning focused research agenda in the professional accounting education arena.

The overriding objective of this study is to develop an understanding of students' learning as they prepare for the FAE of the ICAI. Thus, the researcher designed the study to ultimately present and interpret the learning of students in the FAE environment. The study is from the perspective of the students and it explores their lived experiences and examines the meanings they attribute to events and phenomena. There was no intention within the confines of this study to determine characteristics of the population in terms of study hours or specified study activities or to seek out, in a supposedly objective manner, statistical causality between biodata, learning activities or learning outcomes. Rather, the researcher was interested in investigating the students' perceptions of learning within the FAE context and examining, through their own narratives, their motivations and

intentions, their learning processes and their interpretations of the outcomes of their participation in the FAE programme.

Thus, the study does not fall within the functionalist paradigm which is dominated by positivist epistemology and realist ontology. Such a philosophical stance would not be consistent with the objectives of the study as it would not support the desire for meaning-making. Instead, the framework for this study is interpretive in orientation and it aligns the research objectives with the researcher's general philosophical persuasion. Denzin and Lincoln (2000, p.19) contend that the key issues of ontology, epistemology and methodology ultimately delineate paradigms. In terms of ontology, the researcher veers away from the realist position towards nominalism. The researcher believes that there is no single objective truth external to individuals, rather, social reality is constructed by participants. The researcher is primarily anti-positivist, believing that, rather than seeking universal laws, our understanding of the social world is best enhanced by exploring social phenomena through the eyes of participants and in their natural context. With such ontological and epistemological beliefs, it is not surprising that the researcher favours ideographic as opposed to nomothetic research methods.

Proponents of constructive and interpretative research frameworks outline considerable benefits of these approaches, which resonate with the researcher in the context of this study. Chua (1986, p.584) argues that the domination of the positivist and realist philosophies among researchers in the accounting domain has led to "the production of theory which is divorced from the lived experiences of the empirical realm". She contends that "the Real is created not discovered" and so research should explore phenomena through the eyes of those who construct reality (p.585). By analysing an individual's narratives, the researcher can interpret how that individual makes sense of his/her life and how he/she represents it to others (Bruner, 1998, pp.174-177). Developing an understanding of the situation-specific and subjective meaning of phenomena and events through the examination of the lived experiences of participants is at the heart of the interpretivist philosophy (Schwandt, 1994, pp.18-19; Gephart, 1999). Furthermore, interpretivists recognise that the researcher's beliefs imbue the

research process, leading to a subjective, interpretive, social process of meaning-making (Chua, 1986; Covaleski and Dirsmith, 1990).

A constructivist philosophy and an interpretative research approach are consistent with a considerable amount of the student learning research conducted in the higher education domain. As was illustrated in Chapter 3, the student learning research paradigm is concerned with exploring students' experiences of learning in natural settings. The focus of the research is to understand more about how students learn and how they achieve high quality learning outcomes. Their approach is predicated on the recognition that students' learning is affected by their perceptions of learning task requirements and features of the learning environment. Furthermore, they recognise that our understanding about this process is best fostered through interpreting the phenomena through the eyes of the students. Thus, meaning-making research approaches have featured heavily in this research field.

While, the interpretive orientation is closely affiliated with qualitative research methods (Daft, 1983; Schwandt, 1994, p.19; Gephart, 1999; Denzin and Lincoln, 2000, p.3), quantitative methods can be used within the paradigm to aid understanding and meaning-making. Mixing methods within interpretive studies is also in evidence. Faulkner (1982, pp.65-101) describes his blend of research methods as "improvising on a triad". He views his combination of data collection and analytical techniques, mixing quantitative and qualitative approaches, as providing the best strategy for understanding the phenomena in question. Mixed methods within the student learning paradigm have also been evident. Survey instruments have been developed, based on the findings of qualitative studies, relating to various aspects of the student learning model², but the use of the measures generated by these surveys is interpretive in orientation and recognises the context dependence of the output.

² Some examples of questionnaires developed on aspects of the student learning model are:

- A. Learning approaches - Approaches to Studying inventory (ASI) (Entwistle and Ramsden, 1983)
- B. Perceptions of the learning environment - the Course Experience Questionnaire (CEQ) (Ramsden, 1991)
- C. Learning outcomes - the Structure of Observed Learning Outcomes (SOLO) taxonomy (Biggs and Collis, 1982).

Many researchers within the interpretive paradigm stress the emergent nature of the research process (Patton, 2002, p.255). While one might design a study with the expectation that certain research questions will dominate or particular research methods will be employed, the emphasis on meaning-making and interpreting the experiences of participants often means that adaptations to emphasis and/or method will occur as the study progresses (Denzin and Lincoln, 2000, p.4; Faulkner, 1982). Indeed, Daft (1983) contends that one of the essential elements in learning the research craft is to allow for uncertainty in research design. He argues that good research questions are ones for which the answers are not known in advance and where findings generate surprise, and he conclude that, if studies "are perfectly designed and the results come out as expected, then they are probably a waste of time" (p.541).

Having presented the broad overall objectives of this study at the beginning of this chapter and outlined the process for determining the research approach, it is necessary to explicate in a little more detail how this study ultimately progresses and how different research methods are aligned with the specific objectives of each phase of the study.

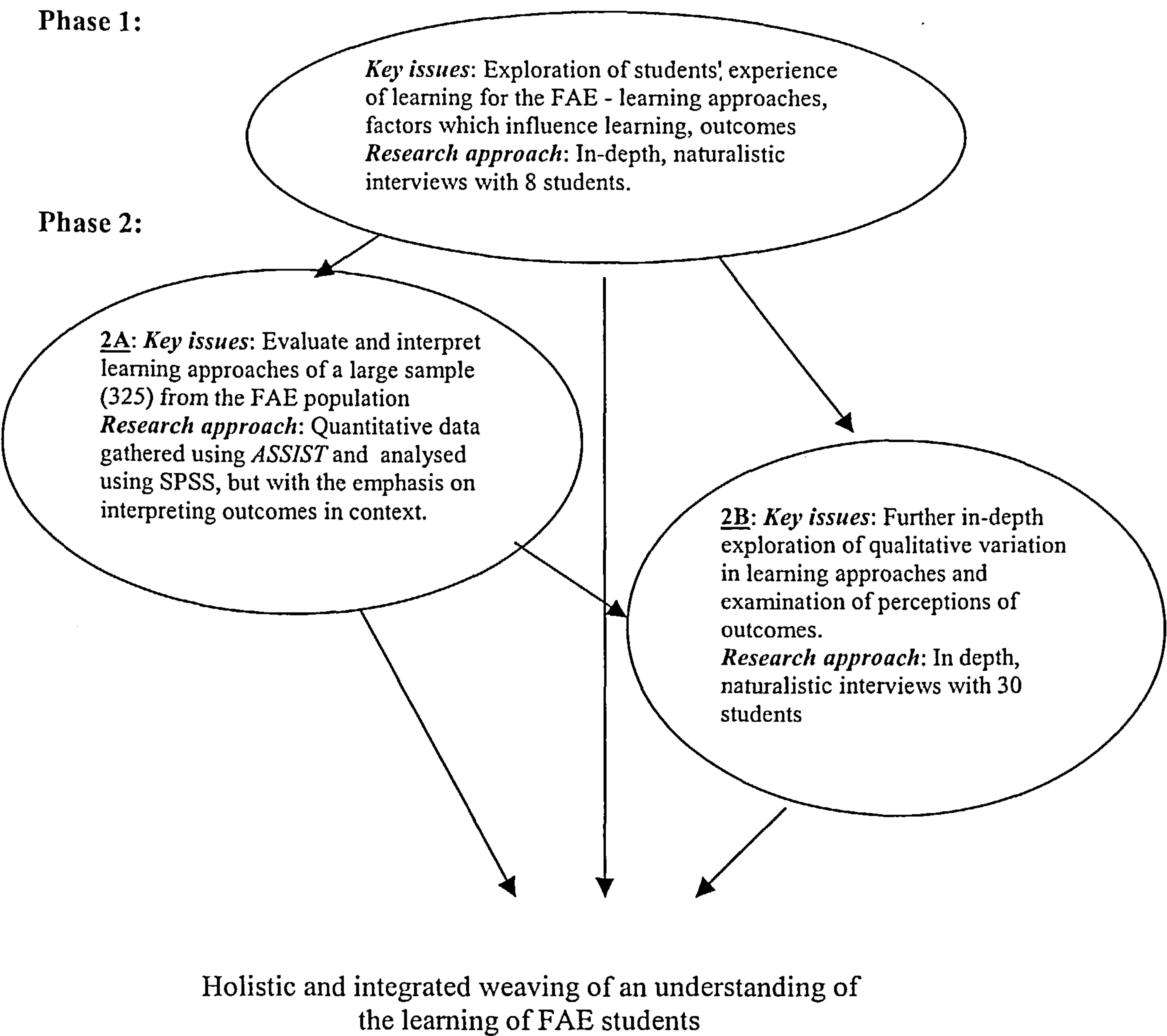
As little research on students' learning within professional accounting contexts has been conducted previously, the first phase of the study explores the arena with a small group of students. Exploratory, naturalistic interviews were conducted with eight students who had attempted the FAE, and a sense of how students learn in the FAE environment was established. In particular, as the concept of learning approaches has been so central to the operationalisation of the learning processes of students in higher education, the interviews examined how students in the professional accounting context describe their learning approaches, what factors influenced their approaches, and their perceptions of the learning outcomes on completion of the FAE.

Following the initial explorative phase, the study progresses on two fronts. Firstly, given the examination of learning approaches in the exploratory phase of the study and the alignment of the features of those approaches with the three types

identified in the higher education field, the learning approaches of a large sample of FAE students were measured. The Approaches and Studies Skills Inventory for Students (ASSIST), following both its conceptual and statistical validation for use in the FAE context, was employed to gather the data for this phase of the study. The emphasis in this quantitative aspect of the study is not on hypothesis testing, rather it examines the extension of higher education measures to a new environment, and it contributed to the weaving of a better understanding, albeit in a more objective manner, of the learning activities of FAE students. The final phase of the study comprises a more in-depth qualitative exploration of some aspects of students' experiences within the learning process. Through the analysis of data gathered from interviews with thirty FAE students, it probes further qualitative differences in FAE learning approaches. Furthermore, this phase of the study interrogates the students' perceptions of the outcomes of the FAE process. The progress of the study through its various stages is depicted visually in Figure 5.3.

The methods used in this study are thus a mixture of both qualitative and quantitative approaches. However, all methods were used in the context of the interpretive paradigm in order to aid understanding of students' learning in this novel setting of professional accounting education. The data collection techniques used within the qualitative phases were in-depth, semi-structured, naturalistic interviews, which were analysed using a thematic exploration of the narratives with a focus on meaning-making. With regard to the quantitative aspect of the second phase of the study, the ASSIST was validated for the context using factor analysis and the data collected was analysed using appropriate statistical techniques. It is recognised that many Ph.D. theses present detailed descriptions of research methods within a research methodology chapter, but this approach is not considered suitable in this study. It is felt to be more appropriate, given the phased nature of the study, to describe all activities regarding data collection and analysis within each phase, as the study unfolds. This is in keeping with the general orientation of an evolving, exploratory study in a highly under-researched field. Thus, the following chapters which present the different phases of the study (Chapters 6-10), will examine the relevant issues regarding research methods.

Figure 5.3: Phases of this study



5.6 Summary

This chapter has explored the field of research methodology in order to provide appropriate philosophical foundations for the current study. An examination of the elements of the philosophy of science which underpin all research allowed the researcher to evaluate her own philosophical orientation and to consider the implications for the design and execution of this study.

Philosophical persuasions, research questions and research methods are inextricably intertwined, in that one's view of the world, and one's perspective on how one gains knowledge of the world, affects what sort of research objectives are pursued and which methods are employed in order to achieve those objectives. Through examining the Burrell and Morgan (1979) matrix of philosophical paradigms, the researcher determined that she is most closely aligned to the interpretive paradigm which, not surprisingly, is in keeping with her intuitive intentions regarding the objectives of the study. Ultimately, this chapter outlined that the broad objective of this study is to develop an understanding of the learning of students within the FAE programme of the ICAI. More specifically, the study explores the operationalisation of students' learning approaches for the FAE, by examining their motivations, intentions and study activities. Furthermore, the study develops insights into the influence of the specific learning environment on students' learning approaches and also examines the perceptions of students regarding the outcomes of FAE. Meaning-making provided the focus for the research methods used to achieve the study's objectives and the subject matter was explored through the eyes of the participants and in a way which was sensitive to context.

The original contribution of this study is that it provides an in-depth examination of students' learning in the professional accountancy context in Ireland, which has not previously been studied. It identifies the learning approaches of those preparing for the FAE and explores the factors which influence their learning approaches and the learning outcomes achieved. It is hoped that the findings of the study will contribute to an evaluation of whether the existing education system of the ICAI is supporting students to learn in the most appropriate way to become the desirable future members envisaged. The findings and insights of this study will aid any review of the education system and it is hoped it will stimulate further research to ensure that professional accounting education effectively serves the profession, society and other stakeholders in the future.

The next chapter reports on the conduct and findings of the preliminary interviews, which constitute the first empirical phase of the study.

CHAPTER 6

PRELIMINARY INTERVIEWS: DATA COLLECTION AND ANALYSIS

6.1 Introduction

6.2 The design and conduct of the first phase of this study

6.2.1 *Research method*

6.2.2 *Sample selection*

6.2.3 *Data collection*

6.2.4 *Data analysis*

6.2.4.1 *Approach to data analysis*

6.2.4.2 *The process of data analysis*

6.3 FAE 2000: Approaches to learning, learning outcomes and the learning environment

6.3.1 *Approaches to learning*

6.3.1.1 *Intention: Motivation for studying for the FAE*

6.3.1.2 *Intention: Seeking meaning in FAE study*

6.3.1.3 *Study activities: 'Time', 'Syllabus', 'Organisation'*

6.3.2 *Factors influencing learning approaches*

6.3.3 *Learning outcomes*

6.4 Summary

6.1 Introduction

As stated previously, the objectives of this study pertain to developing an understanding of student learning when preparing for the FAE of the ICAI. The study is interpretive in orientation and embraces a number of phases. The first phase, which is the subject of this chapter, involves some preliminary, exploratory interviews with students who sat the FAE in 2000. These interviews afford the researcher the opportunity to examine the domain of student learning for the FAE from the perspectives of students. The interviews were designed and conducted in the hope of generating rich, contextualised descriptions of students' learning and of identifying key aspects of their learning processes and the learning environment.

The data analysis conducted in this phase of the study attempts to make sense of students' learning in the FAE context. It aims to transform the set of data gathered from a series of interviews with FAE students into a coherent, credible and illuminating narrative. In addition, a key feature of the data analysis is the evaluation of the appropriateness of extending various student learning concepts, developed in other contexts, to the setting of pre-qualification professional accounting education in Ireland. More specifically, it is recognised that students' learning approaches and related factors have been extensively researched within the higher education setting, but little consideration of the potential relevance of this body of student learning literature to professional accounting students has occurred. The analysis of data from the preliminary interviews evaluates the appropriateness of extending the use of these concepts to this context. Ultimately, the findings of this phase of the study influence the design and conduct of the later phases of the study.

The remainder of the chapter is structured as follows. Firstly, the research approach, sample selection and data collection issues associated with this phase of the study are described. Then the process of analysing the interview data is presented and the findings are discussed. The chapter concludes by considering the implications of the findings of the preliminary interviews for the subsequent phases of the study.

6.2 The design and conduct of the first phase of this study

6.2.1 *Research method*

As delineated in Chapter 5, this study is situated in the interpretivist research paradigm and its overall goal is to develop a contextualised understanding of student learning for the FAE. The study focuses on meaning-making and so aims to explore the phenomena in a naturalistic manner and from the perspective of the students. A qualitative research method, such as interviewing, is thus clearly suited to the initial reconnaissance of the identified research field.

Interviewing can take a variety of forms and can serve many different purposes. Interviews can be conducted face to face, by telephone, email or other media and they can involve an individual or groups (Fontana and Frey, 2000, p.645). Most importantly, they offer a number of potential benefits in terms of exploring a research field. Firstly, interviews can be conducted in a naturalistic, conversational manner¹. The interviewer can generate a rapport with the interview participant, and can encourage him/her to reflect on, and describe, personal experiences. Interviews also afford the researcher access to past events and situations where he/she was not present (Scott, 1997, p.165, Patton, 2002, p.340). Secondly, the data gathered from such interviews are participants' narratives, allowing the researcher to interpret the phenomena being studied through the eyes of the participants. There was a time when interviews were viewed as objective, neutral tools of data collection. However, it is now readily recognised that often interviews are a form of discourse, where the meaning of phenomena is jointly constructed by the interviewer and the participant (Schwandt, 1997, p.79). Another benefit of the interview method is the fact that it allows the interviewer to seek clarification and/or probe more deeply issues raised during the interview. Furthermore, while the researcher may commence with an interview guide or some expectation of the issues that might be examined, the nature of an interview as an interactive dialogue allows the interviewer to pursue unexpected issues

¹ While interviews are regularly conducted in a conversational manner, Dingwell (1997, p.59) stresses that are not like conversations one might have with a friend. He argues that interviews are deliberately created opportunities to talk about something that is of interest to the researcher.

raised by the participant. Interviews thus represent a very flexible research method (King, 1994, p.14) and ultimately, interviews used within an interpretive research study can generate rich and dense descriptions of the meaning of phenomena to the participants themselves. The researcher can then focus on interpreting the data and constructing a integrative, meaning-making narrative.

In selecting interviewing as the research method, the researcher is also aware of its limitations. In the first instance, it is recognised that the possibility of fabrication and exaggeration exists with interviews as it does with any other conversation. These distortions may be motivated by participants not wanting to appear lacking in knowledge, or they may wish to present the responses that they perceive the interviewer expects. In addition, people may honestly convey their perceptions about phenomena, but there can be considerable discrepancies between their words and deeds (Taylor and Bogdan, 1984, p.81). The importance of the behaviour of the interviewer, or at least the perceptions of the participants regarding interviewer behaviour, cannot be under-estimated. A failure to build rapport, confrontational questioning, inadequate listening and misinterpretations, can all contribute to participants disengaging from interviews, resulting in the researcher missing out on potentially rich insights. Being aware of the limitations of interviews and the potential problems that might arise, the researcher made every effort to mitigate the effect of these issues as will be outlined in the subsequent subsections.

Recognising both the potential richness and the limitations of the selected research method, the interviews in this phase of the study reveal students' descriptions of how they go about learning when preparing for the FAE. They were designed to encourage students to elaborate on their motivations, their perceptions of the task requirements and their study activities. It was also hoped that the preliminary interviews would provide the researcher with the opportunity to investigate factors which influence students' learning approaches, in terms of the particular learning context which the students experience. Unlike students in higher education, FAE students work full-time as trainee Chartered Accountants in firms where there is a great awareness of, and importance attached to, the FAE. Hence, it might be expected that students' work experiences and their work

environment may influence their learning and study for the FAE. However, while the researcher may have expectations regarding issues pertaining to students' learning for the FAE as a result of her own experience and her review of the literature, the research approach emphasises the exploration of the issues from the perspectives of the students and the analysis of the data will focus on meaning-making and understanding.

6.2.2 Sample selection

Miles and Huberman (1984, p.36) indicate that researchers commonly initiate studies wanting to discover "all the facets of an important problem or fascinating social phenomenon". However, the reality of time and other constraints associated with professional life mean that they have to "settle for less". Researchers regularly cannot examine every case pertaining to their studies and, consequently, must employ some form of sampling, which involves "taking a smaller chunk of a larger universe" (Miles and Huberman, 1984, p.38). With regard to the current study, it would be impossible to speak to every person who has ever participated in the FAE programme of the ICAI. Thus, in this first phase of the study, a sample of the students was selected to facilitate the preliminary exploration of students' learning in the environment.

The sampling group for this phase of the study consisted of students who presented for the FAE in September 2000. The researcher's intention with regard to case sampling was to select a number of students who reflected the perceived diversity of the population (Maykut and Morehouse, 1994, pp.56-61). At the outset of the study, gender, prior academic study, training experience and location were just some of the characteristics which were identified as reflecting variation in the population. As described in Section 4.4.2, there are various routes which students can take before presenting for the FAE. Many students complete university degree programmes in advance of entering the pre-qualification education programmes of the ICAI. While the majority of these students will be graduates in accounting or business programmes (undergraduate and postgraduate), others will have completed degree programmes in non-business disciplines. Some will train in 'Big 4' firms whilst others will train in small or

medium-sized firms. Additionally, FAE students will be geographically spread around the country. While many will be based in Dublin, Belfast and other cities where ICAI lectures are presented on a weekly basis, others will be working in towns around the country and will prepare for the FAE by participating in the distance-learning programme. A representative sample of the full population was not appropriate, as the interviews were exploratory and there is no intention to widely generalise about the population on the basis of the data gathered from the sample. Rather, a purposeful sample which reflects some of the diversity of the group was desirable, not because the diversities identified necessarily influence the learning approaches of the students, but because they *may* influence learning. Research in other contexts, such as higher education (Section 3.3), has shown that prior experiences and factors in the learning environment have been found to impact on learning approaches in that context.

In terms of identifying a suitable sample size, the researcher did not decide on the number of cases in advance of conducting some interviews. It was thought that it would be more appropriate, given the nature of this phase of the study, to conduct interviews until it was felt that a certain level of saturation had been achieved (Maykut and Morehouse, 1994, pp.61-63). In other words, the researcher conducted interviews with students up until the point where she felt that all the main issues had emerged and sufficient data had been gathered to suitably inform the later stages of the study. Additionally, mindful of the depth/breadth continuum of alternatives in sample size considerations in qualitative research (Patton, 2002, pp.227-228), the researcher was anxious to seek depth in the interviews conducted, even if this was at the expense of breadth across a larger sample of the population. In the end, eight preliminary interviews were conducted.

It was decided that, for the purposes of selecting interviewees for this first phase of the study, the researcher would use personal contacts to identify suitable candidates. The alternative to this approach was to seek the assistance of the ICAI to make new contacts with accounting firms and potential interviewees across the country. However, while the researcher had negotiated support from the ICAI for her study, it was recognised that the individuals in the ICAI who would actually provide the necessary information were exceedingly busy. Thus, rather than seek

support from them at every turn and potentially exhaust the goodwill of those individuals in advance of when their support would be critical (for facilitating the gathering of quantitative data and possibly for identifying interview candidates for the later stages of this study), the researcher decided to adopt the route of interrogating personal contacts. The risk of using the personal contact route relates to the fact that the interviewees may know the interviewer, which may bias their responses. However, given that the researcher is a lecturer at a Dublin university, previously worked in a 'Big 4' firm in Dublin, and most of her social network is constituted by people who have similar backgrounds, the potential of knowing, or knowing of, interview candidates, even if firms and students were selected with the assistance of the ICAI or another third party, would remain. It was felt that, with careful planning and by clearly articulating the purpose of the interviews and reassuring participants of confidentiality, any potential bias could be negated. It should also be remembered that the researcher had herself completed the FAE a number of years previously, therefore, with all potential interviewees there will be sense of familiarity and a shared experience. In the end, only one of the interviewees in the preliminary phase of interviews was previously known to the researcher, another was a friend of that student and all other interviewees were identified in firms around the country by contacts of the researcher or by her friends or colleagues.

Of the eight students interviewed, seven were graduates with three having completed postgraduate qualifications in accounting. Four of the students were based in Dublin, two in Belfast, and two in country towns. Four were training with 'Big 4' firms, though one was in a regional office where there were approximately 25 employees making it more akin to a small firm, two were in a medium-sized firm and two were in small firms. Six of the eight students passed FAE 2000 successfully and two were required to repeat one or more papers in FAE 2001. A more detailed profile of each student interviewed as part of the first phase of this study is provided in Appendix A. To protect their anonymity, each participant was ascribed a pseudonym, thus the participants in this phase of the study are named Tom, Jack, Liam, Ben, Rory, Lucy, Mary and Anna.

6.2.3 Data collection

Creswell (1998, p.110) describes data collection "as a series of interrelated activities aimed at gathering good information to answer emerging research questions". Given the objectives, or research questions, of this phase of the study, the interviews aimed to encourage students to describe their learning during the FAE programme. In particular, the researcher hoped to encourage students to talk about the two elements of learning approaches identified in the literature, that of intention and process. It was recognised that the interviews also provided the opportunity to explore students' perceptions of the FAE learning environment and learning outcomes which could inform the later parts of the study. Thus, issues such as students' conceptions of learning, prior learning experiences, perceptions of FAE task requirements and the meaning of success, were all discussed during the interviews.

The researcher's approach to the interviews was naturalistic in orientation and it was hoped to ensure that students felt comfortable with the discussion and felt able to speak honestly about their learning experiences during the FAE programme. Thus, at the beginning of each interview the researcher briefly explained her background and outlined the objectives of the current research study. She reassured students that, while the ICAI was facilitating her study, it was an independent research study and she wanted them to express their views frankly. The participants were assured that their anonymity was guaranteed.

In advance of the first interview the researcher crafted an interview guide, which outlined the topics which she hoped to cover during the interview. As suggested by King (1994, p.19), the topics for the interviews emerged from multiple sources: most developed from the literature review presented in Chapters 2-4, others were rooted in the researcher's reflections on her own experience of the FAE. The list of topics for the preliminary interviews, operationalised in the form of potential questions, is set out in Appendix B. It must be explicitly stated that the interview guide was not intended as a rigid plan or formula for the interview, but rather was prepared to act as a prompt for the interviewer and to provide a check at the end of the interview to ensure that all pertinent issues had been

covered. Thus, in Patton's topology, the preliminary interviews took the form of the "general interview guide approach" (2002, pp.341-348). During the interviews care was taken in the way in which questions were asked or topics were introduced. Dichotomous response questions and multiple questions were avoided with every effort being made to ask open-ended, singular questions which encouraged the participant to engage in the conversation (Maykut and Morehouse, 1994, p.81). "Flexibility is the single most important factor in successful qualitative interviewing" (King, 1994, p21). Thus, the researcher attempted to allow the interviews to evolve naturally, allowing the students to talk about their FAE learning experiences as they wished. Additionally, efforts were made to follow interesting issues raised by the students during the interviews. Indeed, critical listening was an important feature of conducting the interviews. By listening to the emerging narratives, the researcher could not only clarify and probe, but she could also listen for the silences, the hesitations, the contradictions and the glorious expositions (Dilley, 2000).

All of the preliminary interviews, with the permission of the participants, were taped. The taping of an interview facilitates the accurate collection of data and allows the researcher to repeatedly listen to the interview and reflect on the issues raised in the context of the full interview, as opposed to simply reviewing noted highlights. While it is recognised that the presence of a tape recorder may intimidate some interviewees, its purpose was explained and all interviewees agreed without hesitation to its use. Another benefit of taping the interviews, as opposed to simply taking notes, is that it allows the interviewer to maintain eye contact and engagement with the interviewee as the interview progresses. This allows the interviewer to concentrate on what the interviewee is saying and to follow up on issues raised, without having the concern of trying to capture what was said in note form (Patton, 2002, p.382). For this study, it is considered that such a fluid, naturalistic approach to the interview process was more suitable than a very structured approach, given that the preliminary interviews are exploratory in nature. In addition to the tape recording of the interview, brief notes were also taken during the interviews. The purposes of these interview notes were, firstly, to record issues or comments made by the interviewee which the researcher wished to explore later in the interview and, secondly, to initiate a preliminary phase of

analysis through the noting of what seemed to be significant themes or interesting quotations. Additionally, brief note taking during the interview provided some positive non-verbal feedback to the participant that what he/she was saying was important and noteworthy (Patton, 2002, pp.383).

Immediately after each interview, the quality of the data gathered was reviewed. Each tape was checked to ensure that the interview had been properly recorded. In addition, the notes taken during the interview were read to ensure that they made sense to the researcher. Furthermore, after each interview, the researcher reflected on it and recorded details of her observations and thoughts regarding the participant's reaction to questions, his/her demeanour and his/her engagement in the interview. The researcher also reflected on the process of conducting the interview and evaluated her role in generating rapport and the way she asked questions and probed in order to draw the participant out. The purpose of this post-interview reflection was to establish the context for interpreting and making sense of the interview at a later stage and ultimately by ensuring the data gathered was reliable and authentic, the rigour and validity of the process was enhanced (Patton, 2002, pp383-384).

The first two preliminary interviews were conducted in January 2001. On completion of these interviews the tapes were listened to repeatedly. As these were the first research interviews conducted by the researcher, much was learnt about the interview process from listening to the recordings. For example, different ways of asking questions, and mechanisms to encourage interviewees to elaborate on their thoughts, were identified. Additionally, reviewing the first two interviews allowed the researcher to check on the appropriateness of some very basic technical things associated with recording interview data, such as positioning the tape recorder in order to get the clearest recording of proceedings. Listening to the two initial interviews also, most importantly, allowed a preliminary exploration of the issues arising which helped to direct the later interviews in this stage of the study. Having reflected on the first two interviews, more interviews were organised, with six more being conducted between April and July 2001.

The first two interviews were conducted at the researcher's workplace at the weekend as this suited both participants. However, all of the remaining interviews were conducted at the workplaces of the interviewees. Two of these interviews were conducted outside business hours, but the employers of the four remaining interviewees allowed them to participate in the interviews during regular office hours. (This arrangement with employers was organised by the interviewees - the researcher was available to meet at any time that suited the interviewees). The length of time taken by each interview varied. The shortest interview was approximately 25 minutes in length and the longest was approximately 50 minutes. However, most of the interviews were about 40 minutes in duration.

6.2.4 Data analysis

6.2.4.1 Approach to data analysis

The analysis of qualitative data within an interpretive paradigm is an inductive, evolving, personal process focused on constructing an integrative, credible narrative concerning the phenomena being studied. As the analysis embraces creative, personal processes, there can be "mystification" surrounding the actual analytical activities (Jones, 1985, p.56). This sub-section aims to explicate the analysis process undertaken with regard to the interview data gathered in this study.

Czarniawska (1997, p.71) contends that much can be learnt about how people construct their world by studying how they converse about it. Thus, these interviews encouraged students to talk about and describe their experiences of learning and studying during their preparation for the FAE. In a manner of speaking, the interviews asked them to tell their stories. The outcome of these preliminary interviews is a series of rich, personal, engaging, contextualised narratives. In analysing these narratives the researcher aims to "create a metastory", by editing, shaping and interweaving the narratives to interpret and communicate what they signify (Reissman, 1993, p.18). Through narrative analysis the researcher gives form to participants' experiences and "offers an account that transcends the individual voices of the participants" (Llewellyn,

1999, p.228). As narrative analysis is concerned with people's stories, it is operationalised and enabled by the narrative tools of characters, actions, plots, and themes and the primary goal, through the interrogation and interweaving of individual narratives, is to uncover the common themes or plots in the data (Polkinghorne, 1988, p.177).

The validity of the outcome of narrative analysis lies in the extent to which the 'metastory' is well-grounded and supportable and has the "capacity to resist challenge or attack" (Polkinghorne, 1988, p.175). This validity is achieved by ensuring, firstly, that the data analysed is dependable and, secondly, that the emerging 'metastory' is coherent. The dependability of narrative data lies in the rigour of the process by which it was collected and how convincing the emergent narratives are to the reader. Llewellyn (1999, p.224) contends that convincing narratives are those that balance and blend "credibility (or believability) with defamiliarization (or novelty)". She argues that such narratives both confirm our prior expectations and surprise us with their newness or unfamiliarity. Coherence within narrative analysis is achieved by the clear illustration of the construction of the 'metastory' from the combination of the individual narratives and the theoretical understanding of the researcher. This process of construction requires "a kind of reasoning that tacks back and forth from the events to the plot until a plot forms that both respects the events and encompasses them in a whole" (Polkinghorne, 1988, p.131). Validity concerns have been considered at every stage in this research. In this preliminary phase of the study, the narrative data were collected in a rigorous and ethical manner and, as will be outlined below, the analysis of this narrative data was carefully and thoroughly conducted in a systematic, but yet creative manner. The rigour of this analysis process is evident in the following description of the techniques and tools of analysis and it is ultimately manifested in the credibility of the emergent 'metastory', which is strongly grounded in, and is illustrated by, the narrative data.

6.2.4.2 The process of data analysis

In some respects, the process of data analysis began as soon as the first interview was conducted. Through her participation in the interviews the researcher became

familiar with the phenomena being studied and began to understand the issues that were important to the interview participants. This preliminary analysis, which is often intuitive and unplanned, encouraged the researcher to probe emerging issues with subsequent participants and it also fuelled her interest and enthusiasm for the commencement of the planned phase of data analysis. On completion of all interviews, the tape recordings were listened to repeatedly. In addition, the interviews were transcribed and read repeatedly, in conjunction with the brief notes made by the researcher during, and after, the interviews. Through listening to the tapes and reading the transcripts the researcher became immersed in the data, to the extent that the voices of the participants echoed in her head as she read the transcripts and as she recalled and reflected on issues which emerged during the interviews. During this initial phase of data review, any preliminary thoughts of the researcher regarding meaning-making were noted separately. The process of coding the data then commenced.

Data coding is a data management and organisational tool, which aids the analysis of the large amounts of data which are regularly generated in qualitative studies. Coding simply reduces the data by providing signposts and flags to extracts of text which are illuminating and interesting in terms of the research objectives and which can be used to illustrate themes when presenting the research findings or story. Miles and Huberman (1984, p.56) define a code as "an abbreviation or symbol applied to a segment of words ... in order to classify the words". Thus, segments of text which are assigned the same code have, in the interpretation of the researcher, something in common. The coding process used in this study was that of 'template analysis' or a 'codebook' (Crabtree and Miller, 1992). This analytical approach is widely used in qualitative research and is considered more flexible with fewer specified procedures than other approaches for analysing qualitative data (King, 1998, pp. 118-119). With template analysis there is more freedom with the identification and use of codes compared to techniques such as content analysis or grounded theory. With content analysis all codes are determined before data is analysed and the occurrence of codes is considered in a quantitative way, whereas with grounded theory there is no consideration of codes before the data is reviewed. Thus template analysis lies between these two extreme approaches (King, 1998, p.118). With template analysis there may be

some consideration of likely themes before the data is reviewed but additionally there is an openness and a freedom in the process so that new themes and codes will emerge as the data is reviewed and analysed.

The initial phase of coding the interview data was initiated with the transcript of the first interview. The transcript was read carefully and each issue raised was annotated in the margin. These labelled annotations are the codes. The transcript and annotations of issues were re-examined several times, and a list of the codes/issues raised was extracted. The researcher then moved on to the transcript of the second interview and a similar process of identifying issues ensued. Care was taken that issues arising in the second interview, which reiterated those in the first, were labelled similarly. Issues arising in the second interview which hadn't appeared in the first were added to the list of issues extracted after the first interview. This process of preliminary coding, i.e., identification of issues, was repeated with each interview and the list of issues or descriptive codes emerging was expanded as appropriate. The list of codes emerging from the data was displayed in a spreadsheet and the use of each code in the analysis of the transcript of each interview was recorded in a column labelled for each participant (see Appendix C). This coding spreadsheet was prepared to allow the researcher to have a quick reference, when constructing the story of the data, of the incidence of each code across the different interviews.

On completion of the preliminary coding process the list of codes emerging from the interviews was examined. The codes were then classified on the basis of the broader issue to which they appeared to relate. This clustering of codes into broader themes led to the identification of more general higher-order codes. For example, the codes 'learning is about increasing knowledge' and 'learning is about applying knowledge' were incorporated into the higher order code of 'Conceptions of learning', whereas the codes of 'getting notes' and 'organising files' were classified as being associated with the broader issue or higher order code of 'Organisation'. The higher order codes, which were developed through the coding process, represent the main themes that emerged from the interview data and they form the basis for the analysis of that data. It should be noted that the researcher did, in some instances, use labels or codes developed in other contexts, e.g. in

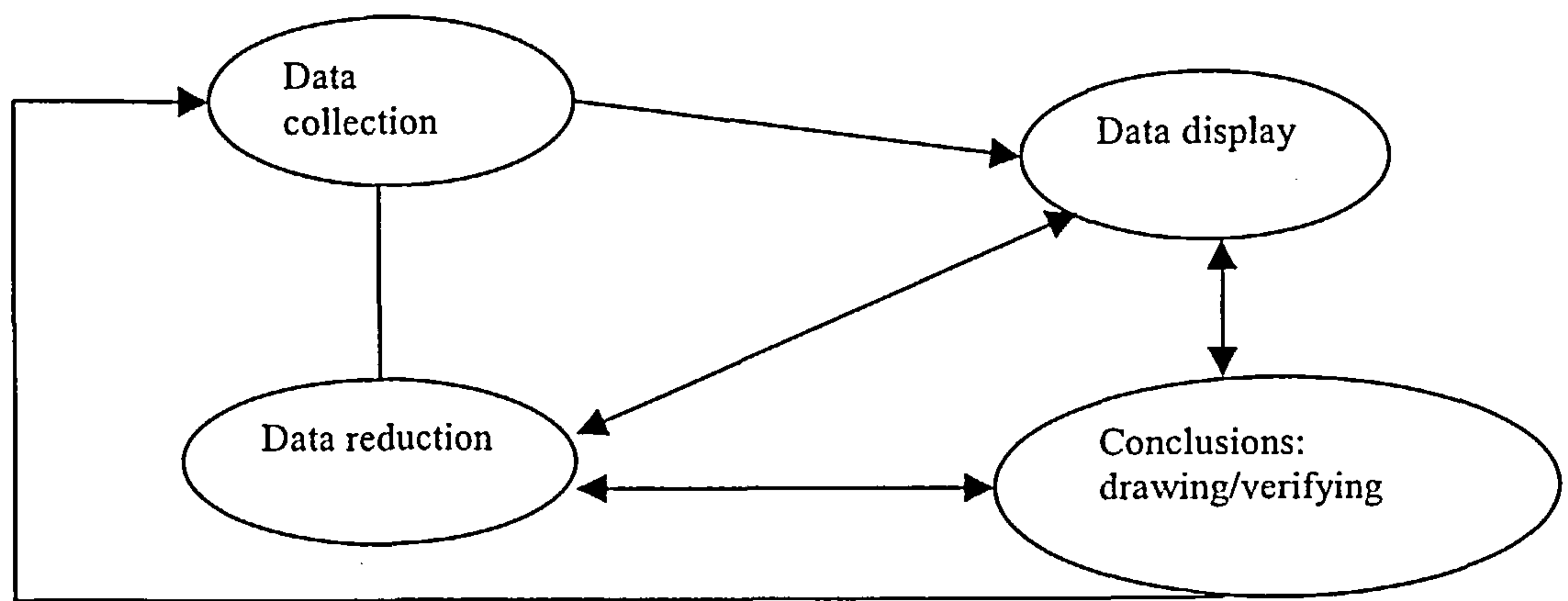
higher education research, as codes and themes in this analysis. The researcher considered this was appropriate if the underlying substance of the issues emerging was similar to that present when the labels or codes were used in previous studies. An example of this would be the use of the term 'Conceptions of learning' as described above for students' descriptions of what learning means to them.

The main benefit of the coding process used in this study is that it provides a rigorous basis for the analysis and evaluation of the interview data and for the consideration of the findings from this phase of the study (Coffey and Atkinson, 1996, p.27). By using a systematic approach, one that suits the data and the researcher, a thorough interrogation of the data can be conducted. Boyatzis (1998, p.5) contends that the systematic nature of thematic analysis increases researchers' "accuracy or sensitivity in understanding and interpreting observations about people, events, situations, and organizations". However, the process of coding and developing themes in this study was not formulaic. While the preliminary interview question schedule indicated the main subject areas of the interviews and thus provided a preliminary sketch of the template (King, 1998, p.122), the researcher did not have a closed predefined set of themes which she planned to exclusively develop. Many codes and themes emerged from the data. Subsequently each interview transcript was re-read and the appropriateness of the codes used in each instance was rechecked and the consistency of coding across the interviews was considered. This process resulted in some re-coding of interview data and the re-clarification of the representation of codes and, indeed, some codes were re-labelled to better reflect their underlying meaning.

The process of reviewing coding, checking the consistency of coding across interviews and the linking of codes to themes was, and is, an iterative process and occurs at every instance that the data is examined in any way. Miles and Huberman (1984, p.21) describe the analysis process as embracing three "concurrent flows" of activity: data reduction, data display and conclusion drawing/verification. They highlight that, while there may be different stages in the analysis process, the different activities constantly overlap and are revisited (see Figure 6.1) and "in this sense, qualitative data analysis is a continuous, iterative enterprise" (p23).

The researcher did experience a sense that the evolving nature of the process is in some way stunted by attempting to use the themes and codes to interpret the data and in committing that analysis to paper. King (1998, p.127) concurs that one of the most difficult decisions in constructing an analytical template is deciding when to stop the development process. He acknowledges that the refining of a template could go on indefinitely but most researchers do not have the luxury of unlimited time to produce the 'ideal' template. He indicates that deciding on the sufficiency of a template is unique to each research project and each researcher. In the case of this study, the final template showing the codes and themes and their occurrence in each transcript is provided in Appendix C. Having repeatedly read the interview transcripts and reviewed the template of codes and themes, the researcher felt reasonably confident in moving on to interpret and present the analysis.

Figure 6.1: Continuous nature of qualitative data analysis: Interactive model



Source: Miles and Huberman (1984, p.23)

Just in the way that the preliminary analysis of data occurs as that data is being collected, thoughts about how to interpret and present the analysis invades the process of coding and thematic development. Through reducing and coding data, the researcher is interrogating the data. By identifying ideas common in the narratives of many students and issues novel to individuals, the researcher develops both familiar (or expected) and surprising (or unexpected) themes. On

deciding that the coding template was sufficiently developed, the researcher determined that she was happy that the emergent themes were strongly grounded and embedded in the data gathered and provided the basis to generate the desired integrative, coherent and illuminating narrative.

There is no universally accepted template for writing up qualitative research (Baxter and Chua, 1998). The researcher was mindful that her coding template provided the structure and themes for her communication of the interpretation of the data. However, she was conscious that, to achieve the objective of this phase of the study, of developing a tentative understanding of the student learning for FAE, the resultant narrative would have to be credible and evocative (Baxter and Chua, 1998). The researcher sought to achieve these characteristics by primarily grounding and illustrating the themes through the extensive use of quotations from the interviews with students. Not only did this approach communicate the trustworthiness of the analysis, it allowed the reader to enter the world of the student. Furthermore, by using verbatim interview quotations (unedited for grammatical error), the reader can hear the voices of the students, and the meaning of the phenomena to students is clearly evoked (O'Dwyer, 2002). As will be seen in the following integrated, thematic narrative, preparing for the FAE is not simply about studying for an examination in a mechanical manner in a sterile environment. Rather, it provides a trail of professional and personal challenges in a pressurised and competitive environment and it jettisons many students onto an unexpected emotional rollercoaster. The researcher was anxious that, through the presentation of the analysis of interview data, the reader would experience the journey of the students.

The following section of this chapter analyses the principal themes emerging from the interview data and evaluates the findings in the light of the objectives of this part of the research study.

6.3 FAE 2000: Approaches to learning, learning outcomes and the learning environment

Models of students' learning, outlined in Chapter 3, identify a wide range of variables influencing the learning approach, which in turn impacts on the learning outcome. Thus, in a study such as this exploring the process of student learning, it might be expected to explore the input variables of a learning context at the outset and then proceed to consider the learning approaches adopted by students and the learning outcomes achieved. However, such a structure does not really suit this phase of the study as the input variables are intrinsically linked to, and are embedded in, students' descriptions of their learning approaches. Thus, the analysis of the interview data centres on students' descriptions of the ways in which they studied for the FAE, their motivation, their study activities and their engagement with the process. These approaches to learning are evaluated in terms of identifying similarities and differences with the learning approaches described in the higher education environment and the appropriateness of expanding the descriptors of deep, surface and strategic to embrace the learning approaches of students in this study is considered. The analysis then continues by exploring the variables which appear to influence students' perceptions of the learning task, i.e. conceptions of learning, and variables associated with the FAE programme, variables associated with their work experiences as trainee accountants. The learning outcomes of the students are then considered and a tentative model of students' learning in the context of the FAE of the ICAI, linking the personal and environmental context variables, the learning approaches and the learning outcomes, is proposed. Finally, the implications of these findings for the later stages of this study are examined.

6.3.1 Approaches to learning

As outlined in Chapter 3, Marton and Saljo (1976a, 1976b) have described the concept of an approach to learning as capturing both a student's intention and process. Thus, in exploring and analysing the students' descriptions of studying as part of the FAE programme, various aspects of the learning approach concept are examined. At the outset of this section students' motivations in studying for the

F AE and the extent to which they seek meaning in their study are analysed and presented. Subsequently, consideration is given to evaluating their detailed study activities.

6.3.1.1 Intention - Motivation for studying for the FAE

The importance of the FAE and the significance of passing the examination in terms of qualifying as a Chartered Accountant appear to provide motivation for many of the students. However, each one has a slightly different perspective and expresses his/her motivation differently.

Lucy is looking forward to the day when she can say she is a Chartered Accountant. She enjoys her job, but she recognises that there are financial implications surrounding qualification and she acknowledges that this provides motivation. For Lucy, the FAE is primarily a hurdle which she wants to get over:

I suppose everyone nobody wants to sit down and do them - some parts are interesting but obviously it is a hurdle and it's a great relief when you get them.[Lucy]

While Lucy concedes that some aspects of her study material are interesting, on the whole she conveys the sentiments of not being very enthused by her studies. She wants to qualify because attaining qualification is a goal she has had since university, and also there are financial rewards to be gained. She admits that she probably wouldn't choose accounting again if she was revisiting her career choice². However, she feels hemmed in by accounting at this stage:

Yes, I'd do something else. I'd like to go into computers or something - but I am at the stage now that I don't have any other choice. I think I am going to have to try and get them.[Lucy]

Thus, her motivation is not that of intrinsic interest, it is examination focused in order to gain qualification. Similarly her interest in qualifying is simply to get to

² This sentiment of wishing to change from an accounting career is reminiscent of Albrecht and Sack's (2000) report, which describes a serious decline in the number of students selecting Accounting majors in the USA. They report that in 1999, there were approx. 20% fewer Accounting graduates than in 1996. Additionally, they report that many of those who selected Accounting as a major would choose a different major if they could make their choice again.

the end of the journey she feels she is irreversibly travelling. This lack of interest is evident not only in her descriptions but also in the sense of detachment which permeates her conversations about her motivation and her study generally.

Liam was motivated to study for the FAE by his personal desire to pass the examinations and to qualify as an accountant:

... it's my own kind of personal goal to get them. I always set out to get them. [Liam]

However, he does not consider that examination success necessarily leads to career success. He feels performance in the work place is more significant in that regard. Thus he does not view career issues as motivating his study. Again, like Lucy, he doesn't describe or imply any intrinsic interest in his study.

Mary's goal in participating in the FAE programme was to successfully complete her accounting studies. Accounting was not Mary's first choice of career, and she would see herself moving away from a mainstream accounting career in the future. Since completing the FAE Mary has commenced a MSc. programme in computing which she is enjoying more than she did her accounting studies:

It's something interesting in IT rather than the accountancy side which I wouldn't enjoy 100%. [Mary]

However, Mary acknowledges that she "is easy to please" and is not too particular about her career path, as it is not a major part of her life. Mary's relaxed approach to her career in accounting means that, like Lucy and Liam, she doesn't emanate a deep sense of interest in her studies. While she admits that the threat of her employers reproaching her for not making satisfactory progress with her studies motivated her, her principal incentive was provided by the fact that successful completion of the FAE would mark the end of her accounting studies. Indeed, even though Mary expresses a greater interest in her post-graduate IT studies, she admits that she signed up for the programme because if she didn't do further study immediately after the FAE, she never would do it, as she has no intention of participating in further study in the future.

Tom's motivation in studying as part of the FAE programme was to be properly prepared for the examinations. He was highly focused on being ready for, or indeed being at the peak of readiness for, the week of the examinations:

But em, I suppose the whole view of studying was to try to be as well prepared as I can.[Tom]

(I was) focused on the RDS (location of examination centre in Dublin) at the end of August, that's the game plan.[Tom]

He describes his motivation as being prompted by the "stigma" that is associated with the FAE, in that it is conceivably his last set of examinations and also it is the examinations which will lead to his qualification as a professional accountant. As will be illustrated later in this chapter, his study activities are dictated by this motivation.

For Anna, the FAE represents a milestone and she views the examination as having high status. Like many of the other students interviewed in the current study her motivation is to clear this final hurdle to qualification. Also, she actively empathises with the notion of 'fear of failure':

The FAE exam is so... I mean..... it's the peak, it's where you want to be. And when you get to that final hill you don't care about what extra information you get, you just want to get there. There's a lot of pressure ... em.... And it wasn't seeing my name on the list that drove me it was not seeing my name on the list. I just could not face the fact that I wasn't going to pass. So at that stage because I'd done two other years and I was coming to the end of my contract, I had no it wasn't about the material, it was about passing my exams. [Anna]

Anna is animated as she describes her motivation to prepare for the FAE and, while she expresses the same desire as all the students mentioned previously simply to complete the FAE, her animation and urgency to bring the researcher into her FAE experience indicates a level of personal involvement and engagement in her studies which was not evident with, Lucy, Liam, Mary, or, to a lesser extent, Tom.

Likewise, Rory is personally involved in his studies. He expresses an interest in accounting, particularly the "glamour side of it" and though he didn't study

accounting at university he always thought it would be the career he would choose. He had studied accounting at secondary school and was exceptionally successful. Additionally, his family have a well-established tradition in the profession. Rory recognises that his motivations in studying for the FAE were threefold. Firstly, he acknowledged a financial motivation, similar to Lucy. Also, in the same way as many of the other students had expressed, he was intent on passing FAE because it was the final hurdle. However, he also tried to see some opportunity for personal development in the process:

Three pronged answer to a certain extent. One, being the realist that I am I was thinking 'If I don't pass this it is going to be quite a chunk out of my pocket', there's a big, big difference between being a senior in contract and not having done FAE, which effectively you would have been, regardless of having the extra year's experience, if you failed versus if you passed them, all of a sudden the money eventually starts to get a little bit more realistic. The other side of the answer would definitely be, yeh, I would have seen it as going 'okay, this is the big drive, do it once and don't mess it about, put the blinkers on and just say to yourself, it's only a year of your life' and then the other part would definitely be whereby I'd be saying to myself 'okay, now what the hell am I going to get out of this? I'm not just going to go to lectures for the sake of it'. [Rory]

Ben was motivated by a desire to be prepared for the examinations. He reflects that at the outset of the process he was motivated by the fact that he had experienced a year without studying and felt he would be out of practice regarding examination preparation. This awareness influenced the way in which he approached the FAE programme and his learning activities:

I was conscious that I hadn't studied for 12 months, so I said 'right, I'm going in here, I'm going to be a bit rusty, I have to put in a bit of effort at least to get back on track'. [Ben]

Like so many of the other students interviewed, Jack was very focused on the examination. He reports that not being able to repeat the examinations if he failed until the following year provided him with very strong motivation. Thus, he focused on being properly prepared to give himself the best chance of passing. He

also fervently acknowledges that he was motivated by a fear of failure: "the fear factor is there, because you have to get these".

However, he also acknowledges that he enjoys learning, and he likes the evidence that examinations provide that he has achieved something. Jack likes to push himself, and he describes how he pressed his employers to allow him do the Level 2 examinations of the Institute of Taxation in Ireland in the year prior to the FAE. They encouraged him to wait until after his FAE, but he wanted to do the examinations to prove himself and he did so, achieving a place in the Top 10 list of results. Jack describes the FAE as a hurdle:

I always looked at FAE as something I had to get, to get behind me.... [Jack]

However, there is a sense that this is so he can move on to new challenges and push himself further. There is no sense that Jack sees the FAE as the end to his learning activities.

Having briefly considered the principal motivations of each student as they prepared for FAE, the following sub-section explores the students' intentions to seek meaning in their study. Again, it will be seen there are similarities in the descriptions of the students, but also considerable variation.

6.3.1.2 Intention - Seeking meaning in FAE study

For Lucy, understanding is not necessarily something she actively seeks in her studies. It appears that she sees understanding as being intertwined with practice:

I think understanding, in general, understanding comes with practice. [Lucy]

.... like learning is basically, you have to understand something to be able to put it into context. [Lucy]

However, the direction of the relationship which Lucy perceives is difficult to extract; does understanding result from the practical application of knowledge or is understanding a pre-requisite for the application of knowledge? To some extent her consideration of the FAE helps to illuminate the issue:

... but for the FAE I would think that basically sitting down and doing numerous case studies, going over it and over it and basically being able to apply the knowledge because you have to thoroughly understand it. [Lucy]

It appears that Lucy considers that repeated exposure to material will provide her with understanding and it seems that she relates passively to the material; she will repeatedly go over material, but there is no sense of engagement with the material or any internalisation of the learning task.

Liam similarly does not describe any active engagement with his studies or any internalised quest to seek meaning in every learning activity. He contends that he prefers to understand things, but he describes this understanding in relation to what would seem to be the quite passive activity of "going through" the material. He also acknowledges that he will rote learn material if he doesn't understand things:

I...like, if I don't understand it I'd say I'd probably learn it off and if it comes up just slap it down, you know. The majority of the stuff I'd like to think I knew, but not just learn it off just to....like I do understand it as I'm going through it, you know. [Liam]

Liam views the FAE as a very different type of examination to those he has faced previously - whether prior professional examinations or college examinations. The differences he perceived caused him great uncertainty with regard to how to prepare for the examinations. He describes how his instinct was to prepare as he had always done for examinations which was to learn things off by heart, but that friends and colleagues who had taken the FAE in previous years advised against that approach. So he took the advice given and focused on being familiar with the breadth of the syllabus, but he was unsure of himself and his approach. Even at the time of interview, knowing that he passed the case-based papers but failed the Auditing paper in September 2000, he is still not satisfied that he is confident on how to properly prepare for the FAE. As he contemplates re-presenting for the Auditing paper in 2001, he doesn't know what way to turn:

Em, like everybody says - you know when you're going to...probably start saying, you ask people who've done them what do they recommend, or how would they go about studying, but I guess FAE like it's totally different to Prof 3 and they said "if you just organise your notes and know where everything is" which

would be contrary to what I was used to, they said "don't learn off anything". ...So for me that was a big thing because I wasn't sure what to do. I approached it that way, just to kind of organise my notes and everything like that and em...I suppose in a way, I've to do the auditing again this year so..em... I don't know whether it kind of worked or not, it didn't, so I'm kind of back to square one now, do I...even this year now I'm saying do I start learning off things again or do I kind of just go with what I did last year and just brush up on a few things, you know. [Liam]

So Liam is very unsure of himself. His study focus and activities are not ones he devised for himself but rather he is following the advice of his peers. Thus, he had not invested himself personally in the process as will be evident from his descriptions of his study activities discussed later.

Mary does not think a deep understanding of the material is necessary to pass the FAE. She also considers that "a lot of people go through accountancy without knowing their debits and credits". Like Liam, Mary received plenty of advice regarding preparing for the FAE, but, unlike Liam, she didn't heed it: she did her own thing. That said, she comments on the uncertainty that the FAE creates:

Everybody is doing something different - you look at one person and they're referencing this and they're tearing up books, or putting them into folders, and you wonder 'should I be doing that,... am I ok?'. That's kind of a hard thing. Everyone's doing something different thing. [Mary]

As with Lucy and Liam, the way that Mary describes her study for the FAE indicates a lack of personal involvement or engagement. The FAE was something that she had to do and she did it, but it wasn't something that particularly interested her, and she didn't feel this sense of urgency to make sense of all her accounting knowledge.

As has been highlighted above, Tom's motivation for studying is to be prepared for the examinations. He describes rote learning as "putting the cart before the horse" and emphasises the importance of understanding. However, it seems that Tom's rejection of rote learning is not because he couldn't learn something without understanding it but, rather he doesn't think it would be sufficient to pass examinations, particularly professional accounting examinations:

There's a lot to be said for learning, learning off, say like how financial statements are laid out, but I mean, you maybe get away with that at Leaving Cert. level but I think when you get up to professional examination level you have to be able to understand the basic bricks like debit, credit. So that's what understanding is, why is this debit and why is that the corresponding credit, why is an adjustment required, why is this accounting treatment necessary or is it consistent, I mean that's understanding. And when you apply that to learning, I mean, you can learn something without understanding it, but I mean you would be caught out eventually. [Tom]

Tom views learning as something that is external to him; it is something which will be validated by third parties, in most cases examiners. Thus, while he seeks meaning in his study for the FAE, its not necessarily to quell an internal, personal need for that meaning, rather it is to ensure that he meets what he perceives to be the requirements of the FAE examiners. Tom concentrates on getting marks in the FAE:

I was very conscious not to loose any marks because I was thinking just hit 50, if you lose silly marks.... That sounds very negative, like you always aim for 100 and mark down but I suppose being realistic.... I was thinking I'm well capable of getting 50 but you can have a bad exam, a dodgy question or something that flumoxes the vast majority of the candidates on the day, so the bottom line is 50, but you're looking at 60 obviously, aren't you? [Tom]

Anna felt that the FAE did require her to think somewhat differently about her learning activities as compared to previous examinations. She felt that she could deal with technical material as she had done previously, but that the "the whole professional slant (of the FAE) with the interaction of real life and the technical side" was more demanding. She identified that the FAE required the application of knowledge, and recognising what was relevant to a particular scenario was very important:

... it's not a question of just dumping it all on a page and it being applicable, especially at FAE, you have to think about it and tailor it. [Anna]

Anna conveys that she thought about her approach to the FAE, she wasn't overly influenced by peer advice, but rather preferred to rely on her own experiences.

Rory was very focused on the examination during his preparation. He considered that the FAE required the understanding of material as opposed to just the regurgitation of facts. While his learning activities, which will be discussed later in the chapter, embody his sentiments of seeking meaning in everything he did during his preparation, there is a similarity to Tom in the way he expresses the need for understanding so he wouldn't be exposed in an examination:

That would be where someone could be caught out I think, if they'd been sitting there and just learning it, learning it, learning it and not really understanding it and getting in behind the numbers and trying to see why it is. [Rory]

However, Rory seeks a deep understanding of his material, particularly in the way that he integrates material from different subject areas and different sources. Additionally, he actively monitors his progress in preparing for the examinations, by expecting himself to achieve a higher level of understanding and better ways of communicating that understanding as the examinations approached.

Ben's learning during the FAE was also very focused on the examination. He recognised that in many ways he needed to develop a certain set of skills during the programme in order to be properly prepared to deal with the examination. He recognised that the FAE was very different to previous examinations and he focused on being able to apply knowledge rather than just being familiar with the knowledge itself. While Ben obviously was very focused and involved in his study, he does not convey the same animation or engagement as was evident with Anna and Rory.

Perhaps, the student who conveyed the greatest sense of internalising his learning during the FAE programme was Jack. As Jack describes his learning activities, he paints a picture of total immersion in his studies. He 'lived' his FAE experience and engaged personally with the tasks and has reflected on the process and what it has meant for him. He describes how he thought about the requirements of the FAE before he started his study programme and how he identified the importance of developing understanding of the prescribed material and being able to integrate and apply that knowledge. Like Rory, he actively monitored the progress of his studies. If he had problems with an area, he didn't ignore it, he set it aside and

made sure he revisited it at a later stage. As the descriptions of his study activities will expose, Jack took his preparation for the FAE very seriously, he immersed himself in his work and he makes the analogy comparing his preparation to seeking match fitness. (Tom also used sporting terminology when discussing his study: as illustrated earlier, he referred to a "game plan".) Jack was determined that his study activities would develop his strategy for dealing with the FAE examination. He was convinced that by working on his examination approach rather than the detail of specific material he would be better prepared to deal with unexpected issues in the examination. Additionally, he reckoned that he was sensible when it came to examinations and that he was prepared to use his common sense. Like Anna, Rory and Tom, Jack acknowledged the professional aspect of the FAE:

I think the whole ethos of the FAEs is in terms of, 'ok you're a professional in the office and somebody asks you to do something, you need to look at it, you can look at anything you want but you need to come up with something at the end of the day'. And that's the whole ethos that lies behind the FAEs, ok, they're testing if we are professional...[Jack]

Each of the students' motivation and intention to seek understanding in their studies, at some level, derives from a desire to pass the FAE. This strategic focus is not unexpected given the group of students involved. All of the students have spent at least four years studying prior to the FAE, when their study as part of degree programmes and previous professional examinations are taken into account. Additionally, all of the students are trainee accountants, who have training contracts with an accounting firm and they have completed a minimum of two years of their training before taking the FAE. Having reached the final hurdle on the accounting qualification track, it appears that the students want to complete the course successfully: they want to have the certification and the added-value for the years already invested. Additionally, these students, unlike many within higher education, have made a career choice and convey a sense that they have invested heavily in their career in terms of time, effort and foregoing more lucrative financial packages available to graduates. Thus, an examination orientation to their study is unsurprising. However, many of the students detail additional motivations. For Mary, successful completion of the FAE represented the end of her study of accountancy. For Lucy and Liam, completing the FAE

would achieve long held personal goals to become Chartered Accountants. There is also a fear factor which motivates many of the students; they acknowledge that they haven't failed examinations before and they don't want to start now. For a number of the participants (e.g. Jack, Mary, Rory) the fear factor is a function of working in a professional office where everyone knows you are taking examinations and there is an expectation of success. A couple of the students have strong personal motivations regarding their study. Jack enjoys taking up new challenges and is constantly seeking mechanisms to push himself and to prove his ability and he sees the FAE as such an opportunity. Rory, in keeping with his conception of learning, wants to develop personally from his FAE studies, but concedes that financial motivation and saving face are also very important.

With regard to the students' intentions to seek meaning in their study for the FAE, evidence was gathered which shows the variety of ways in which students set about the learning task. There is widescale acknowledgement among the interviewees that rote learning is something that can be used but is not the most appropriate form of learning for FAE. Some of the students indicate that they resort to memorisation where they fail to understand material (Lucy, Liam). On the whole there is agreement among the students that understanding material is essential for the FAE and their study activities aim to achieve the required level of understanding. All of the students report that they seek meaning in many aspects of their FAE study and many emphasise that this understanding is operationalised by being able to apply knowledge in new scenarios presented by the examinations. For some of the students (Jack and Rory particularly), seeking meaning in their study is evidenced by their efforts to integrate material from different subject areas and sources in order to get a view of the big picture. Jack, Rory, Anna and, to some extent Ben and Tom, internalise their learning with respect to the FAE. They involve themselves in their studies, and their engagement and interaction with the FAE programme is evident in the way they describe their study as well as the actual activities themselves. Lucy, Liam and Mary do not engage with their FAE studies. They prepared themselves for the FAE but there is no sense of personal involvement, their studies were something external to them.

Thus, in terms of the overall thrust of students' approaches to learning as part of the FAE programme, it appears that many of the characteristics associated with deep, surface and strategic learning approaches described by students within higher education are present with the group currently being investigated. For example, the aspects of what are known as the deep, surface and strategic approaches to learning which have been identified in the descriptions of learning reported in this section to date are set out in Table 6.1 below.

Table 6.1: Aspects of the deep, surface and strategic learning approaches described by the FAE students

<i>Deep approach</i>	Seeking meaning Intrinsic interest Personal involvement and interaction with material Integrating material
<i>Surface approach</i>	Lack of interest Fear of failure Rote learning
<i>Strategic approach</i>	Examination focus Concern with earning marks Focus on what is required by examinations

The following section of this chapter analyses students' detailed descriptions of their learning activities. The analysis of these descriptions supports and elaborates on the aspects of the approaches to learning presented and analysed above.

6.3.1.3 Study activities: 'Time', 'Syllabus' and 'Organisation'

As has been indicated previously, the analysis of students' actual studying or learning activities is based on the extraction of three principal themes from students' descriptions. These three themes are: 'Time', 'Syllabus' and 'Organisation'. The thematic approach to this part of the analysis has been used in an attempt to cluster the issues raised by the students and to explore the similarities and differences in the study activities described.

Time

The 'time' theme emerges in a number of different guises from students' descriptions of their FAE study activities. In the first instance, the extent and nature of students' participation in the FAE programme and their personal study is very much dictated by the delineation of the period of the FAE programme between, 'pre-study leave' and 'study leave'³. Indeed, so clear is the differentiation of students' activities between the pre-study leave period and the study leave period itself, that the themes of 'syllabus' and 'organisation' will be considered for both time periods separately. However, the time periods associated with the FAE programme are not the only basis for the identification of the 'time' theme. Time also features among students' descriptions in the following ways: length of study leave; time management during study leave; study hours; time management during examinations. All of these issues will be explored in conjunction with the other two principal themes. Indeed, the three themes are very closely connected and students' descriptions constantly interweave between them. It is hoped, that by structuring the analysis around the two principal time phases identified and the interconnection of the other 'time' issues within this analysis, the substance of students' descriptions is preserved and effectively communicated.

Pre study leave

All of the students indicate that they did very little study prior to study leave, for example:

Before I got off on study leave I'd done next to nothing. [Anna]

So during the year I wouldn't really have done much. [Jack]

³ The FAE programme for 2000 extended from December 1999 until the first week of September 2000 when the examinations were completed. The programme consists of a series of lectures, tutorials and 'assignment days' which take place either on Saturdays or weekday evenings, with a couple of 'block releases' during the period. Under the terms of their training contract with the ICAI and their training firm, students are entitled to an agreed amount of study leave over the programme period. The tradition exists that the majority of this leave is taken as a block of study leave prior to the examinations. Additionally, many students take leave in lieu of overtime worked during the year to extend their study leave period. Nearly all students presenting for the FAE would have a minimum of seven to eight weeks study leave prior to the FAE examinations (i.e. July and August in full), with many having a lengthier period.

However, they did focus on getting themselves organised for the study leave period. Considerable effort was made by most of the students to attend the various lectures provided and all of the students were anxious to have copies of all the lecture notes distributed. The perceptions regarding the usefulness of lectures varied. Mary did not participate in the lecture programme provided by the ICAI, rather she attended the preparation programme provided by a private college for students in three regional towns⁴. She reports that the course she attended was "brilliant". She thought the lectures were great and the assignments forced her to study. Also, as study leave progressed, she found that, by attending all the lectures, she had absorbed a good deal of the material. Liam, who participated in the ICAI's distance education programme, felt that his intensive weekends of lectures were "like a paper gathering exercise". He felt that material was just skimmed through, though it did provide him with an overview of the syllabus. All of the other students interviewed were registered on the ICAI programmes offered in Dublin or Belfast. While there was some indication that the ICAI lectures were uninteresting and were very factual in nature, there appeared to be a general sense that lecture attendance provided an outline of the syllabus, thus making students aware of what they needed to cover. Therefore, most of the students tried to attend as many lectures as possible. Jack is the only student who indicates that attending lectures was not a priority for him. He found the lectures dull and factual and didn't really feel he gained anything by attending. He felt that as long as he kept abreast of the material referred to in lectures by quizzing his friends, and he organised to get copies of all the notes distributed, he would be fine.

Being familiar with the syllabus prior to study leave seemed to rank highly with all the students. In particular, having copies of the notes from the lectures was viewed as critical to provide a basis for examination preparation during study leave. For those who didn't attend some of the lectures, this meant organising the acquisition of copies from friends or colleagues. Again most of the students indicate that they filed their notes and prepared preliminary versions of their study files before they actually finished work and were released on study leave.

⁴ A very small number of FAE students participate in programmes offered by a private college, rather than participating in one of the preparation programmes run by the ICAI.

The 'Organisation' sub-themes of 'getting notes' and 'organising notes' crop up repeatedly with the students, particularly in the pre study leave period and the early weeks of study leave. There appears to be a near obsession among the students about notes. Despite the breadth of the FAE syllabus, the students seem to feel that preparedness for the examination is impossible without every piece of paper distributed by any lecturer at any session:

So to a certain extent I made that promise to myself and basically after every lecture I'd either make sure I had the notes because I'd been there or if I'd missed it for whatever reason, a lot of the times you'd miss the midweek lectures all right because of job commitments, etc., but I would have made sure I had the notes at least within 48 hours, had them copied, had them filed, knew exactly where everything was so even at the end, when we were coming around to May or whatever and I was going off on study leave I wasn't suddenly faced with a nice pile of notes three feet off the ground and be going 'right'... [Rory]

Anna contends that for her the notes distributed during the lectures signified what she had to cover during her study leave period in order to be ready for the FAE. She was satisfied that the lecturers would provide a framework for her study and would cover the breadth of the syllabus. She also indicates that she had learnt from her previous experiences of the importance of having her notes filed in an orderly way before she actually commenced study leave. She remembers that when she commenced study leave for Professional (Prof) 2⁵ she had huge bundles of notes in no particular order and everything was a mess and "I got really stung". The acquisition and organisation of notes prior to study leave seems to provide most of the students with a comfort that they are preparing satisfactorily, given the timeframe and the advice of peers:

A few people had told me if you attend all your lectures, you're half way there, and if you have all your notes come June when you're getting off on study leave - you don't want to be running about trying to get that together, so I mean I did that. [Ben]

Lucy, Liam and Ben (despite his comments above!) are the only students who indicate that they did a little bit more than organising notes prior to study leave.

⁵ The Professional 2 and Professional 3 examinations of the ICAI are colloquially known as Prof 2 and Prof 3 and they will be referred to as such in all the chapters which present findings from this study.

Lucy, who was unsuccessful at FAE 2000, describes how she started to study in April/May by going through the notes and trying to understand the material. She reflects that perhaps she was too late starting that sort of work. Liam acknowledges that he had found managing his study time when he was working full time to be difficult, but he had learnt from his experience in the years prior to the FAE of the benefit of doing "a couple of hours during the week just to cut down the workload before you get off to study". Thus, for the FAE he reports that before study leave commenced, "I would have started a bit, nothing serious, but would've been kind of chipping away, making notes". However, as highlighted in the previous sub-section, Liam is very uncertain about the effectiveness of his approach to the FAE, and he lacks confidence in his studies as he describes his activities. He, like Lucy, was unsuccessful at the FAE in 2000. Ben had completed a Master of Accounting programme prior to entering training and so was exempt from all ICAI examinations except the FAE. However, a student cannot present for the FAE until at least two years of the training contract have elapsed, thus Ben, like all his peers who completed specialised Master's programmes, had a year without any study or examinations during his first year of training. Ben was concerned that this break from studying would mean he was "rusty" and, as highlighted when considering motivation, he was anxious to "get back on track". He was particularly concerned about his study of taxation. Ben had completed his Master's programme in Dublin and had studied Republic of Ireland taxation at that time. However, he was registered for the FAE in Northern Ireland and would be required to comply with UK taxation. Even though Ben studied UK taxation during his undergraduate degree and there is a relatively high degree of similarity between the taxation legislation in the two jurisdictions, he was concerned that his taxation knowledge was mixed up and he was lagging behind his peers. He thus initiated some revision of UK taxation before study leave commenced.

The reasons put forward by the students for the extent of their preparation, or lack of, prior to study leave were varied. The pressure of work was cited by half of the students (Tom, Anna, Ben, and Rory). Many of the students, particularly those working in the large or medium-sized firms, worked a considerable amount of overtime and thus had a limited amount of free time. Also, during the year, some

of the students expressed an interest in spending their available free time doing things other than study. Rory was still anxious to play and watch rugby and Anna wanted to devote some time to her personal life. Tom alludes to the fact that it is hard to motivate yourself to study when the examinations are so far away, particularly when two to three months of study leave lie ahead. The sense that study leave would provide sufficient time for the required work was expressed by many of the students, including Anna and Jack:

I thought, 'I had 12 weeks off and if you can't do it in twelve weeks...' [Anna]

I knew I would have three months off. [Jack]

Thus, most of the students felt that by attending lectures and being familiar with the breadth of the FAE syllabus, by getting and filing their notes, they had done a sufficient amount of preparation prior to study leave, as is expressed by Tom:

Em, to be honest my preparation for FAE up to study leave was pretty minimal. I attended about two-thirds of my lectures, but the amount of work I did was very minimal. I didn't hand in any assignments, I skirted over my lecture notes, but I knew what was going on. I suppose my whole key was to understand the syllabus, what was on the syllabus, especially auditing because its very, very broad. But in all honesty that came down to study leave time, there was very little done between say January and June. But in terms of understanding,.... yeh.. I suppose if there were areas I hadn't looked at before I liked to get a grasp of them but again it would have been very minimal because pressures of work and the motivation wasn't there because my weekends ... you know, I felt if I got to lectures I had done enough and if my notes are in order... [Tom]

Study leave

As highlighted previously, many students' efforts prior to study leave were influenced by the fact that they felt that they had sufficient time to prepare appropriately for the FAE during their study leave period. While the length of study leave varied among participants (some were on study leave from the end of May, the majority from the end of June), most of them felt that the length of time was adequate. Only Lucy specifically refers to being under time pressure during study leave. Mary acknowledges that she would have liked more study leave, but

additionally she recognises that the length of time given is probably not the most significant success factor, a view which is echoed by Tom:

Well study leave wasn't as good as other offices but I think that is probably an advantage like, looking back on it. At the time we might have looked for an extra week - I think it was definitely an advantage when I look at other people, who had twice as long off and just can't get them, they're still at them. So maybe they're right to give us shorter study leave.[Mary]

Yes I suppose, the fact of... 12 weeks doesn't mean you are going to pass, people who had 7 or 8 weeks can get them as well. [Tom]

It appears that the majority of students feel that it is not the length of study time that is important but what you do with the time that matters.

In terms of using their time, most of the students describe structuring their available study time in an very organised fashion. Many of the students describe doing a certain number of study hours during the day or over the week. Mary describes using the regular working day of 9am - 5.30pm as her study time. Anna similarly worked a structured 9am-6pm study day, five days a week. She reflects that she had learnt from experience that there was no sense in attempting to study every hour of the day:

When I got off for Prof 3, I overheard a guy, stupidly I overheard a guy saying 'oh I'm going to work 9-9 every day', so I thought 'oh I'm going to need to do that too'. So I got off for Prof 3 and I tried to do 9-9 and I lasted about a fortnight and then I was just bursting into tears, it was dreadful, I had a mini breakdown. So I sorted adjusted myself to work 9 or 9.30 to 6 and just to have the evenings off and then it worked quite well. So that worked well for me so I did that again for Finals, worked 9-6, Monday to Friday.[Anna]

Rory devised a rigorous study time system which involved 40 hours of study in a week in a variety of time periods. He found that this approach allowed him flexibility to respond to changes in his study environment and to other demands. Tom explains how he had learnt from his Prof 3 experience of the importance of using the available study time wisely. His first instinct was to approach his study leave going "hell for leather" from the 1st of June. However, he listened to peer advice and, instead of studying around the clock, he focused on putting in "good

hours". He also elaborates on how he increased the intensity of his study time as the examinations approached:

It was only in August I started working weekends, it wasn't mad hours, I was doing an average of about 9-10 hours, I'd say an average of about 9 hours a day, which was solid enough going, between breaks and weekends and whatever.

Neither Ben nor Jack mentioned the number of study hours completed during study leave, but both imply that they were very concentrated on their study at that time. Ben contends that he is a disciplined student and was confident that he would organise himself and stick to his study plan once he started study leave. Jack did not attend lectures but he was prepared "to go at it" during study leave. Jack didn't just plan his study time as all the other students described, he also organised his study space which will be illustrated later.

Before moving on to explore the activities that filled the study hours of the students during study leave, it is important to consider students' reflections on the mock examinations which took place during the first week of July. All of the students identified the mock examinations ('the mocks') as providing a definite mark of time during study leave, even though for many of the students they took place very soon after they commenced study leave. Mary describes the mocks as an "eye-opener". Ben, while he found the mocks a shock, felt they were beneficial in that they provided him with an indication of the standard he had to reach and additionally they gave him the proverbial "kick up the backside". Anna similarly felt she learnt from doing the mocks. She had been determined to attempt them as she "wanted to see what was a starting point for me really, what was really the absolute very worst I could possibly do". She was subsequently surprised that she hadn't done that badly, making her reflect that she had gained more from attending lectures than she had previously thought. So for her, the mocks actually provided a boost of confidence. Tom reports that he wasn't prepared for the mocks as he didn't want to peak too early. So for him "the mocks happened" and the marks he achieved weren't an "embarrassment". He wasn't overly concerned by the results as he was confident that he would reap the reward for the work he had put in since the mocks in the real examinations. However, he does report a brief bout of anxiety when he realised that one of his friends had passed all the

mock examinations comfortably, but he reassured himself and kept true to his preparation plan. Jack passed all but one of the mock papers, failing it by 4%. He hadn't focused on the mocks to any extent but he was happy with his results. Rory, on the other hand, set the mocks as an interim target in his study plan. He studied prior to the mocks and describes how he had "nailed most of the course at that stage". He regales how he took a two-week break after the mocks as he was satisfied with the work he had achieved by that time. Indeed, Rory proudly, (even cockily) describes his success at the mocks relative to others, though he does reflect that the experience of the mocks gave him a renewed focus for the remainder of his study period, thus acknowledging the mark of time that the mock examinations represented in some form for all the students:

I think that it was important for me, to sort of say to myself 'ok, this is the goal, split it out, because as soon as.... I hit the ground running effectively - studied up to the mocks, went off to my folks' place out in Lanzarote for two weeks, after that came back fresh as a daisy and everyone was suddenly going 'oh God, we failed the mocks'. I think the pass rate in the mocks was about 15% and I passed mine. I was quite comfortable in the mocks all right so that especially gave me the extra boost in the arm that I was kind of saying to myself 'right if I can get a 65 average in the mocks I think I can pass everything else'. Straight away it just helps you focus that little bit more, but at the same time, I learnt because of the fact that I addressed the mocks as the real thing. [Rory]

At this point it is useful to summarise briefly the 'time' issues which have arisen in students' descriptions of their FAE experience. In the first instance, students clearly distinguished the FAE programme and their examination preparation between the period *pre study leave* and *study leave* itself. Their motivation, focus and study activities clearly changed as they were released from work to study full-time in advance of the examinations. The *length of study leave* negotiated by the students varied but all of the students except Lucy considered that the time they had was sufficient preparation time. The 'organisation' theme associated with students' FAE experience which will be discussed in detail later in the chapter, is evidenced in the structure that the majority of students placed on their study time. Many of the students describe how they organised their *study hours* and worked a certain number of hours every day or every week. Another significant 'time' issue that emerged from students' descriptions was that of the *mock examinations*. All

of the students talk about their experiences of the mock examinations and how they influenced their preparation; they represented an influential mark in time for all of them, though in different ways. For some, it indicated that they really did need to concentrate hard and focus their preparation, whilst for others it provided some reassurance of the appropriateness of their preparation to date.

Having examined students' perceptions of the principal time issues associated with study leave, it is necessary to explore what they did during their study time. Earlier in this chapter, the extent to which students sought meaning in their studies was analysed. It was identified that most of the students recognised that knowledge acquisition alone was insufficient for the FAE. They considered that the FAE required a good understanding of material and also the ability to apply that knowledge. The activities in which the students engaged in order to deal with the 'syllabus' will now be examined, in addition to the issues of 'organisation' which appear to go hand in hand with their coverage of material.

Syllabus and organisation

Most of the students interviewed attempted to have a good understanding of the syllabus before they commenced study leave, as was illustrated previously. Therefore, during study leave the focus was on getting through all the material in the syllabus. Additionally, the majority of the students attempted to develop their application of knowledge through the practice of questions. What is interesting is that, while *syllabus coverage* and the *practice of questions* are common themes in students' descriptions, the level of engagement with these tasks, their perceived purpose and the associated organisational activities, vary considerably from one student to the next.

Both Lucy and Liam, perhaps understandably, are quite reticent when asked to talk about their study activities. Their descriptions of their study activities are punctuated by their apparent perception that their activities were insufficient or inappropriate given that they were unsuccessful at FAE 2000. Liam's uncertainty concerning how to approach the FAE was referred to earlier; he felt the FAE was very different in nature to examinations he had previously experienced and he

therefore took the advice of peers and focused his preparation on being familiar with material rather than his preferred approach of rote learning. Liam describes his study activity without any conviction. He felt that there was an awful lot to cover in the FAE syllabus, but he made his way through all the notes. However, he doesn't make reference to having a timetable or schedule in order to ensure coverage of all the material. He practised questions as he was going through the material, but he feels now that perhaps he didn't do enough questions.

Lucy, like Liam, considers now that she probably didn't do enough case studies as she prepared for FAE 2000. She set herself a timetable to ensure that she covered the syllabus. She broke the syllabus into four subject areas and tried to stick to her daily schedule. Lucy did a lot of case studies as part of her preparation (although, as indicated, she now thinks she should have done more), but she didn't engage with them:

(FAE study) is practical. It requires just sitting down and it's very boring, just doing numerous questions over and over again.
[Lucy]

Lucy describes very passive study activities. While she says she practised case studies and questions, which one might consider to be an interactive activity, it would seem that she really just became familiar with the content of the case studies. It doesn't appear that she used the case studies and questions to develop her ability to apply her knowledge; she wasn't testing herself by trying case studies or monitoring her progress. This passive use of case studies and questions is in stark contrast to that of some of the other students which will be presented later.

Mary, like Liam, doesn't refer to preparing a timetable or plan for covering the FAE syllabus. She went through all the material and, while she practiced questions which had been distributed during her course, she never referred to past examination papers. She feels that she "would have benefited from doing past papers but I just didn't have the time". Mary placed a lot of emphasis on participating in her course. It appears that Mary's FAE course, run by a private college, was quite demanding of the students. Mary sat three sets of mock examinations - the official set provided by the ICAI plus two additional sets designed by the private college. Additionally, she found the revision courses

provided by the college very beneficial and she feels she picked up a lot through her attendance at lectures and the revision sessions. While Mary would have liked to review past papers, she was relatively satisfied that she had been exposed to enough questions and scenarios during her course.

Ben practised questions as part of his preparation in some subject areas but not all. Whether he used questions depended on a number of factors. For example, in Auditing Ben intended to examine past questions but didn't get around to it as going through all the notes took up all the available time. He did practise past papers and other case studies for Strategy as he found it a difficult subject area in which to get comfortable with the material. Additionally, his lecturer had advised that practising cases and reviewing the suggested solutions would develop the required skills for the examination. He found that doing questions on Financial Accounting topics was useful for testing his ability to apply knowledge, but he was satisfied that he was 'quite comfortable' with Management Accounting topics and didn't place much emphasis on cases in that area. However, he was anxious about Taxation, so he spent a lot of time getting to grips with technical material but he laughingly said "I couldn't do the papers. I avoided them!".

It is interesting that Ben used his time allocated for different subject areas differently. He assessed what was required in each area and also took account of his own sentiments and abilities in each area. That said, Ben was very conscious not to let his perceptions of his own weaknesses dominate his preparation. He devised a strict timetable for himself which allocated time to subjects based on the potential marks to be earned in each area:

From there on I had everything time-tabled out. I don't know, I'm very structured in revision. I just counted up how many marks there were all together, 800 or something, whatever it was I counted them up and counted up the time I had and allocated the time accordingly, otherwise I'd find myself studying all say Auditing, because it was particularly difficult, but I was determined not to give it any more time than something that I was better at because I felt I'd pull up the marks somewhere else. So that's how I structured it. [Ben]

Ben's approach was structured and was also well-thought-out. It was examination focused, but took account of his perceptions of differing requirements of different

subjects. Ben had previously described himself as a disciplined student and his ability not to let his fears of particular subject areas encroach on his study plan is in keeping with a controlled, disciplined approach.

Anna, Tom, Jack and Rory also had well-thought-out study strategies which they developed for themselves to take account of their own perceptions of the task requirements. All of them planned the coverage of the material with the preparation of detailed timetables and schedules and, indeed, Jack animatedly describes how he organised his study space and kept track of his activities, conveying an image of him sitting in a command centre in control of all he surveyed:

I'd go home and there is a house beside my parents' house - no running water, etc., ... (laughter) ...it's very barren so it is. What I'd do is I'd cover the wall in paper. On one side of the wall I'll do a very sketchy syllabus for each of the subjects, so that sort of semi-consciously it's going into my head what I need to look at, what I need to focus on, what I don't need to focus on, just the main areas. Then on the other side, I'd just do a grid for each subject in terms of Monday to Sunday and the weeks going down, so that I can write in that I've looked at something or if I've problems with something that I need to revisit it in maybe a few days or a week's time and that was the approach that I took to it. And then just I basically went through the syllabus, tick things off, always making sure And looking at the wall I see when I hadn't done anything for say case studies for a few days, so I'd then do some tomorrow. I liked having all the information sort of close at hand to keep a track on things as I go along.

All four students describe their study patterns changing or developing in relatively the same ways as study leave progresses. All of the students spent the first few weeks covering the basic material. Anna and Jack describe how they focused on going through all the material and reacquainting themselves with the technical material. They then moved on to practising questions. Tom describes how he spent the first four weeks doing the "nuts and bolts", getting familiar with all the core material. He comments that he "didn't take the gamble" of leaving topics out, as he couldn't be sure that the peripheral issues wouldn't be examined. Tom broke the syllabus down and went through the technical material, but he was very conscious that topics would not be asked in isolation in the examination. So from the outset he was thinking of ways in which topics could be integrated and he

linked material together during his preliminary study. He describes this approach of integrating and linking material as that of building a "matrix". Tom also demonstrated his focus on the examination in the attention he paid to different parts of the syllabus:

...again you're being cute, you're looking at the more relevant documents, FRS12 was always going to come up, because provisions are very topical, maybe FRS 11 on impairment, again you'd read the document in full because it was the first year on the syllabus...[Tom]

Rory had quite a similar approach to Tom regarding the preliminary stages of study leave. He focused firstly on getting a view of the big picture that the syllabus generated. He then sought to draw the links between subject areas and topics within subject areas. When he was satisfied that he could draw the appropriate links, he got "down to the nitty gritty" detail of the topics. As already indicated, Rory had a highly structured study plan in terms of the hours to be covered in a seven day period. He explains that, in a typical eight-hour study day in the first half of his study leave, he covered the basic material for the first or second time and then linked that material to other material he would have previously covered. He also prepared a summary sheet of the material which he used when referring back to any area. He then practiced questions on the area, saving the "nastiest ones" until the end of the day to provide a true test of the progress he was making.

The way the students used the practice of questions is worthy of comment. As indicated above, Rory used them as a self-monitoring tool in the early part of study leave. However, as study leave progressed, he left the detailed material behind him and focused exclusively on the practise of questions and cases. He was concerned with honing his examination technique. He spent longer doing draft answers as the examinations approached and he carefully compared his solutions to the suggested solutions, causing him to conclude:

....but what I was finding was when I'd go back to look at the sample solutions the verbiage in them compared to the verbiage I was using... I was going 'well, I didn't have a keyword there that I probably should have, even though I've got the answer right I'm not using the key words'. [Rory]

So he concentrated a considerable part of the remainder of his time ensuring that he used the appropriate keywords. He had also sought the advice of a partner in his firm, who had previously acted as an FAE examiner, as to how to best present his answers and her advice reaffirmed his focus on the use of keywords.

Anna and Tom also spent a considerable amount of their study leave attempting questions and learning from their efforts. However, their activities do not reflect the same intensity as Rory. Anna comments how she generally attempted the numerical parts of questions and simply reflected on the narrative requirements. However, she monitored her efforts by reviewing the examiners' solutions:

If it was a technical question, like in management or something, I'd try the numbers. But where they were sort of waffley questions, I'd just sort of sit down and think and read the answer and say 'Close!' (laughing). If I was hitting the right area at all I was happy.[Anna]

For Jack there were multiple benefits associated with practising questions. Firstly, he describes how he used the practice of questions as a basis to reflect on the material he had gathered and put together. If he was attempting a question or case and he found he couldn't find useful material in his files to aid his attempt he noted that he either needed to add material to his files or to reorganise the material he had. So he describes this iterative process or learning loop associated with file maintenance and practising questions. Jack also describes that, through his practice of questions, he learnt to break up the information in the case and allocate it to answer particular requirements. Jack's study activities reinforce his conviction, mentioned previously, that developing a good examination approach was the critical element in his FAE preparation.

The reference above to the way in which Jack constantly updated and worked on his files leads to a consideration of the file organising activities of all the interviewees. As will be discussed in the following section, all of the students were influenced in their study by the fact that the FAE is an open-book examination, allowing them to bring as much material as they wanted into the examination hall. All of the students spent time referencing their material. Throughout the interviews there are many references to 'indexing files', 'cross

referencing', 'summary sheets' and 'sticky tabs'. Most of the students relate that their file-organising activities were a central aspect of their preparation and took considerable time. Mary is the only student who reports that she didn't spend much time organising her material. She left all the material she received as part of her course in the form and sequence in which it was distributed, as she felt that through her lecture attendance she was familiar with the material in that form and layout. She referenced the material but she didn't go "overboard" with it. File organisation is one of the areas where many of the students seem to have sought advice from friends and colleagues who had done the examinations previously, but it appears that none of the students interviewed took the files of friends as their own, as Jack comments on the issue:

I had a few chats with different people who had sat the exams previously and I sat down and I looked through other people's files, the files they brought into the finals with them, just to see how they put them together. I didn't actually take anyone else's files because I think that you need to develop your own sort of system for approaching them. [Jack]

Rory was constantly refining his files and he specifically refers to the reorganisation of his Auditing files having completed the mocks. He learnt from attempting the mock auditing examination that his notes were not user friendly for the examinations, so he reorganised them and "alphabetised" them, to the extent that he was much happier with them.

In terms of the material used by the students, it appears that all of them based their preparation on the material distributed in lectures. Some students refer to using material from previous courses (Jack, Ben and Rory). Anna said she made good use of the recommended text books for each subject area, some of which she would have been already familiar with. Jack and Tom specifically mention that they sought additional material independently. Jack used material from his workplace (proforma financial statements, etc.), and he sought out useful summaries of regulatory issues from the internet. Tom actively sought articles in professional journals and company and industry information from newspapers, which he felt would give him "an edge". Tom's concern with earning marks and impressing the examiner, as discussed earlier, is clearly demonstrated by these activities.

The above analysis has focused on the learning activities of the students during their FAE programme. The importance of time as a theme in students' descriptions has been highlighted. In addition, themes of dealing with the syllabus and organisation have been identified and discussed.

The following section is intrinsically linked to students' descriptions of their FAE experiences. It explores the variables which appear to influence students' motivation and their approach to study in terms of their views of seeking meaning in their study and their actual study activities.

6.3.2 Factors influencing learning approaches

In many respects, it is difficult to extract an analysis of learning approaches in isolation, as students' descriptions of learning approaches constantly relate to contextual issues. Consequently, some of the context issues will have been touched on in the previous sections. In particular, issues such as the students' perceptions of the FAE programme and the examination itself, the open-book nature of the examinations and the need to seek advice from peers regarding the FAE, have been mentioned, though further elaboration of these issues will be presented in this section.

The issues that have been identified as important factors in the FAE learning context and which will be discussed in this section are:

- A. Conceptions of learning
- B. The nature of the FAE - open-book and case study oriented.
- C. Prior learning experiences
- D. Work experience and the training environment.

A. Conceptions of learning

At the outset of the interview, each student was asked to describe what learning means to him/her. As will be seen in the evidence provided below, the conceptions of learning described varied from simply associating learning with knowledge acquisition, to a much more complex view of learning as centring on

personal development. Interestingly, some of the students also describe learning in experiential terms, or perhaps what is interesting is the fact that many students, despite their experience of working as trainee accountants, do not associate learning with concrete experiences.

Three of the students associated learning simply with acquiring, and dealing with, new knowledge:

*1..(Learning is), basically, broadening your knowledge
increasing your awareness of different topics. [Lucy]*

*2. My personal opinion is you get stuff and you go through it from
start to finish and you make summaries and you learn it off and
you try and understand it obviously, but I always approached
new things - learned it off and then you always have it. [Liam]*

The third student, Mary, similarly sees learning as the acquisition of knowledge, but for the very specific purpose of taking examinations; she describes learning as "cramming". She later explains that her views of learning are all filtered through the lens of studying Accounting, which she has found difficult over the years and was not her first choice of study. That said, when asked to reflect on the meaning of learning in a broader context than Accounting, she still relates learning to preparedness for examinations.

The descriptions of learning put forward by these three students are reproductive in orientation. Also, it is noteworthy that, while the students were asked to describe what learning means to them, two of these students (Lucy and Liam) have externalised their descriptions by using the terms 'you' and 'your' at various points. There is also a sense from these descriptions that learning is a mechanical process for these students that is activated when required. There is little to indicate that Lucy, Liam or Mary perceive learning as personal, interesting or engaging.

While Tom also views learning as concerning the acquisition of knowledge, he considers that the application of knowledge is part of learning too:

Learning would be to increase my knowledge and then to be able to apply that knowledge to whatever field is relevant, whether it be work or... education or ... whatever. [Tom]

Tom's view of learning is more developed than those identified above and he views the application of knowledge broadly. However, when he elaborates on his conception it is evident that he does not associate learning with personal interest but rather sees learning as purposeful. In particular, he associates learning with formal education and he learns in order to get marks in examinations. When involved in learning tasks, he focuses on earning marks and impressing the examiner and indeed he tries to provide what he thinks the examiner wants. Additionally, Tom looks for external validation that he has learnt something, rather than expressing a personal experience of having learnt something:

Eh..., as you know I didn't do an accounting degree so it might have been essays - I did history and politics and so it was essay based - so I suppose the only way you knew you were learning was when you got your essay back and it was a good mark so you obviously impressed upon the marker that you knew what you were talking about and then I suppose a step up, in the exam you might have a similar topic, or be able to apply some of the knowledge from that, .. in an exam scenario and again the marks would reflect that. [Tom]

Tom considers that understanding knowledge is a critical element in learning, but again this view of the importance of understanding as part of the learning process is shaped by his focus on examinations. It appears that he sees understanding not as something that gives personal meaning to learning, but rather it is necessary to ensure examination success in the long-run and to keep face, "you can learn something without understanding it, but I mean you would be caught out eventually".

Anna also conceives learning in terms of acquiring and applying knowledge. However, in contrast to any of the students mentioned to date, she identifies two types of knowledge as being associated with what she calls 'professional learning', technical knowledge and practical knowledge. While she acknowledges that technical knowledge can be acquired from textbooks, she considers the practical element of learning as very much integrated with her work experiences as a trainee accountant:

I think that for me, learning - in terms of professional learning - there are two aspects to it - there's the technical aspect and also practically, you know, how you actually prepare a set of accounts and the background to double entry, the whole basis of the thing. And I would say that as far as the nuts and bolts of the whole thing my work experience in 'Firm E' working in practice is invaluable. I couldn't ... I couldn't imagine that I would have progressed as easily or as hassle free without working in practice. I know that there were other people who worked in industry, I don't know how they did it. The other half - the technical side of it, purely for me a lot of it was just regurgitation, you know, just sitting down with your books and going through it and learning them and just regurgitating it at exams. [Anna]

Anna's distinction between technical and practical knowledge is reminiscent of the 'knowing that' and 'knowing how' elements of professional competence considered in Chapter 2. Also, as is illustrated above, she conceives the two knowledge types differently. She appears to see technical knowledge as dull and static, but she views the practical knowledge as more engaging, active and useful.

Ben also conceives learning as being associated with his work and concurs with Anna that it provides him with practical knowledge:

What is learning? Probably accumulation of knowledge would be part of it but experience as well. Em..., to me learning theory is probably the minor part, the major part is putting it into practice and a lot of that only comes through time. [Ben]

Ben feels that his work experiences have changed his conception of learning. He acknowledges that he enjoyed being exposed to new knowledge during his university courses but that he acquired that new knowledge simply to pass examinations. He had no practical outlet for it. Now, having worked in a professional accounting firm for two years, he prioritises gaining experience over knowledge accumulation. He now views learning as primarily centring on gaining experience which allows him to fulfil his professional role. There is also the sense that Ben considers his experiential knowledge as dynamic and useful, which again overlaps with Anna's conception illustrated above:

.... there is probably a lot of stuff that you learn in college which you never ever use in a practical way, you sort of discard that as not overly important once you passed your exam. Whereas in work everything that you learn you'll generally use it again and it all ... it's like it's building up experience. For me anyway! [Ben]

In work, sometime you're subconsciously learning, you're doing things you've done before Let me see, a lot of it's down to experience, you know, you come across a thing one time and you don't know what to do with it, so you go and find out and the next time it comes up, well you do it without even thinking about it, you know. [Ben]

Ben contends that it is possible to learn without understanding, but he would find it difficult to do so. He feels that that his experiences in work have provided him with a better foundation and framework to understand accounting and that his practical knowledge has given meaning to the technical knowledge he learnt in university:

It is possible to learn without understanding, but to me it's important that you understand, I find it much more difficult to learn without understanding. I would say that throughout my whole accountancy degree, Master's right through, I never really understood accountancy until I worked in practice, you know. I learnt the FRSs back to front and inside out, and even double entry, it sounds ridiculous, but double entry never clicked until I was actually we did a sort of book keeping course the first two weeks we came into 'Firm E' and it was like it was easy after that, and was going 'if I'd known that before I'd done all those degrees' (laughing)⁶. [Ben]

Ben's conception of learning is experiential and is personal to the extent that by learning from experience his understanding of issues is developed and he can conduct his professional duties appropriately.

Jack's conception of learning is also personal but it is more abstract than experiential. For Jack, learning is about having a well-developed personal understanding of concepts and topics and being able to integrate knowledge:

I think the term learning is more to do with understanding of topics and the grasping of concepts. I like to sort of assimilate things and think from the ground level and develop my understanding of a certain concept and that's my idea of learning ... separate components and building it all together. [Jack]

⁶ Interestingly, Ben was a very successful student prior to his entry into the firm.

There is a sense that Jack internalises learning, he charges himself with the responsibility of developing his understanding and he actively engages in his learning to gain the type of integration of knowledge from different sources which he thinks epitomises learning.

Rory similarly views learning as something very personal and something that he controls and benefits from. He contends that, for him, "the essential point (about learning) would boil down to self-development". He considers himself to be constantly learning and developing in every aspect of his life and effectively re-evaluating his belief system. Specifically, contemplating learning in an educational and professional setting he comments:

I mean, I would be one of these people that would have a belief whereby, you know, I would be very confident about what I think but I'm always open to what other people are saying. But at the same time, I'd be saying 'Okay now, am I right?', take in what other people are saying, make up my own mind as opposed to being told what I'm meant to be thinking. But if you'd sort of seen me two years ago I probably would have been more bloody minded, to pardon the expression. I probably would have just put the blinkers on 'I'm right, I'm right, I'm right'. So once again, to a certain extent, that's development, learning what other people's skills are and learning what they have to say as well.[Rory]

Rory internalises learning. He has thought about his beliefs and why he holds those beliefs, but he does not stagnate in that position. He is open to new ideas and ways of thinking, but he doesn't simply adopt those new ideas, he evaluates them, and makes sense of them relative to his own established belief system. Also, Rory's conception of learning is highly abstract; he does not relate learning to accounting subject matter and examinations, rather it is about who he is as a person and how he develops as a person.

Rory's views on learning are the most complex of all those expressed in the preliminary interviews. They are significantly more developed than those of Liam and Lucy, who viewed learning as knowledge acquisition. However, the variation in the students' conceptions of learning is perhaps what is most interesting.

In terms of classifying the conceptions of learning expressed by students in this study, it would appear that the students can be split into two groups. Firstly, Liam, Lucy, Mary and Tom principally describe reproductive orientations to learning whereas Anna, Ben, Jack and Rory express constructive perspectives. In relation to the categories of description derived by Saljo (1979) and Marton et al. (1993), and which were outlined in Section 3.3.2, Liam and Lucy appear to fall into the category of *Conception A - Learning as the increase in knowledge*, at the bottom of the hierarchy. Both students describe different fragments of the conception as outlined previously. The vagueness often associated with this conception is evident in Lucy's description, whereas Liam reflects different aspects of the conception such as the quantification and acquisition of new knowledge. While Mary also views learning as the acquisition of knowledge, she further describes the use of her accumulated knowledge in examinations. The acknowledgement of such a limited application of knowledge is characteristic of *Conception B - Learning as memorising*.

Categorising Tom's conception of learning is a bit more complicated. Tom contends that seeking meaning in his study is important, which at the outset might imply that his conception of learning would fall into one of the constructive categories. However, it appears that, although he seeks meaning, it is not to gain personal understanding or insight, rather it is to apply his knowledge appropriately in an examination or work situation. Additionally, he doesn't describe learning in a personal way, he views it as functional and external to himself. His lack of personal involvement or internalising of learning, in addition to his focus on knowledge application, means that his conception falls into *Category C - Learning as the acquisition of facts which can be retained and/or used in practice*.

What distinguishes the conceptions of learning of the four remaining students from those evaluated so far is that they conceive learning as personal, they engage with learning tasks and situations and they are more reflective of what learning means to them. As with the students describing the reproductive conceptions, no student describes every aspect of a particular category, rather as reported in Marton et al., (1993), students generally describe different fragments of a

conception. This is particularly true in the case of the three students whose conceptions of learning could be categorised as *Conception D - Learning as the abstraction of meaning*. In the first instance, Anna's description has some similarities with Tom's. However, what pushes her description into the Conception D category is the sense that she engages personally in her learning. Anna identifies two types of learning. She recognised situations where she would acquire knowledge and then just reproduce it in examinations. However, she also recognises a more evolving type of learning associated with her work experience. She reflects that her learning through work provides her with understanding of concepts and practices and she finds this learning more engaging than reproductive forms of learning. Anna's identification of different types of learning reflects an aspect of the development of learning conceptions reported in prior research (van Rossum et al., 1985; Marton et al., 1993). It also indicates how the context of learning can influence a person's conception, as Anna's view of learning has developed as a result of her exposure to accounting practice during her training.

Ben's conception of learning is similar to Anna's and he also describes a development trend in his view of learning. He describes how his conceptualisation of learning has changed from a reproductive knowledge acquisition focus when at university, to a conception which focuses on personal understanding facilitating his professional competence. While there is a sense that Ben now sees learning as a form of personal development, this development relates to work situations only. His descriptions lack any reference to developing in terms of seeing the world differently, which would typically characterise the two higher level conceptions.

Jack's conception of learning is also very much that of Conception D. However, unlike Anna and Ben, Jack doesn't necessarily describe learning in terms of examinations or work experiences, rather there is a sense that seeking meaning of material is important in itself for Jack. He likes to build strong foundations for his knowledge base, and he constantly seeks interconnections in his learning. Like Anna and Ben, he actively engages in learning and his descriptions emanate from a sense of interest and involvement in his learning.

Rory's conception of learning appears to be that of Conception F - *Learning as changing as a person*. Rory views personal development as the essence of learning, it involves him seeing things differently, and reflecting on and changing his personal beliefs. Another characteristic of this conception which Rory embraces is that learning is not restricted to specific aspects of his life, rather he sees it as enveloping every part of his existence. Rory's conception is the most complex and most developed of the participants in this study.

The classification of the conceptions of learning of the participants in this study to the various categories identified in the prior literature is summarised in Table 6.2.

In analysing the participants' conceptions of learning the categories of description devised by Saljo (1979) and Marton et al. (1993) have been used. At the outset of the analysis process, it was not clear if these categories of description, which were generated within the higher education setting, would be appropriate for the descriptions of students in the context of professional accounting education. However, it was found that the variation captured in the established categories of description reflected the variation in the conceptions explicated in this study. The clear distinction between Conceptions A-C and Conceptions D-F reported in prior studies was evident and clearly centred on whether learning embraced understanding and the extent to which students engaged with, and were active in, their learning. Perhaps, one aspect of the descriptions collected in this study which shows variation with those in prior studies is the extent to which some students made reference to learning regarding their professional work activities. Given that prior studies have embraced higher education students whereas the participants in this study are trainee accountants, working full-time in professional accounting environments and studying on a part-time basis, the illumination of conceptions with examples from the work environment is not surprising in this case. However, the dual experience of these students of working and studying, as opposed to their prior experiences of studying full-time in higher education, did result in a couple of the students reflecting on the maturing of their conceptions due to their changed environment. Thus, evidence is provided, in a way different to prior studies, of a development trend in learning conceptions.

Table 6.2 Classification of participants' learning conceptions

<i>Conception</i>	<i>Description</i>	<i>Students</i>
A	Learning as the increase in knowledge	Lucy, Liam
B	Learning as memorising	Mary
C	Learning as the acquisition of facts which can be retained and/or used in practice	Tom
D	Learning as the abstraction of meaning	Anna, Ben, Jack
E	Learning as an interpretative process aimed at understanding reality	
F	Learning as changing as a person	Rory

B. The nature of the FAE

As outlined in Section 4.4.2, the FAE is different in nature to the preceding examinations offered by the ICAI in that a number of the papers are case studies and students complete the examinations in an open-book environment. The students participating in the preliminary interviews had mixed views with regard to the impact of the case study approach on their study. However, there was unanimous agreement that the open-book aspect of the examination influenced the ways in which they prepared for the examination.

As was evident on analysing the study activities of the students, a number of them were very focused on integrating material within subject areas and across subject areas (e.g. Tom, Jack and Rory) as they considered that this would enhance their preparation and would suit the nature of the FAE. That said, Tom felt that the cases are not as interdisciplinary as students are led to believe at the outset of the programme:

I mean multi-d, it's a bit of a misnomer I think. Tuesday you know it's auditing, fair enough, the other days as well you have a fair idea what's going to come in. You bring in all your material but

you know what subject you're going to be taking out every day.
[Tom]

Mary similarly considers that the multidisciplinary nature of the cases doesn't affect her that much. She contends that the case papers are simply "like having four or five questions normally, based on the one set of information". Ben also felt that it was simply a matter of breaking the case down into the various requirements. However, Liam thought the case approach was off-putting, at the outset of the programme at least, as he had no prior experiences of dealing with case studies. He didn't like the fact that he had no choice with regard to which requirements he answered, he had to answer them all.

The open-book nature of the FAE did affect the preparation of the students. Already the importance associated with organising files during study leave has been highlighted; all of the organising activities of referencing, indexing, preparing summary sheets, etc., was prompted by the fact that the students could bring as much material as they wished into the examination hall with them. Indeed, Anna's abiding memory of the FAE centres on the boxes of material brought into the examination hall by all the candidates:

We were laughing about this yesterday actually, because you know my final lasting memories of FAE, is everyone wandering around with these big boxes (laughing) and with this dazed look on their face. And looking into other people's boxes and saying 'Oh, they've got more books than me - what have they got in their box?' [Anna]

Many of the students sought advice from colleagues and peers regarding the appropriate preparation for an open-book examination. While some went so far as looking at the files of those who had done the examinations previously (Jack and Rory), most of the students gleaned from their advisors the importance of having notes that were well-referenced and with which they were very familiar before going into the examination.

Rory and Ben specifically comment that they were selective about the material they brought into the examination with them. They only brought in material that they had used during their study leave and they left plenty of material at home.

Tom's attitude was quite different: his view was "you know its FAE, don't leave it at home, you bring it in with you". All of the students, however, were conscious that organising their notes was important, but that they had to be mindful of how they would use them in the examination. Many of the students described having the notes in the examination as a safety net, e.g. 'great back up' (Rory), 'safe gap' (Tom), 'it's a crutch' (Lucy). However, most of the students realised during their preparation that looking up notes during the examination for every single issue or requirement would be inappropriate, as Rory comments:

I didn't fall into the trap of going 'it's an open-book exam, therefore don't need to learn anything' ..em... I think it can be dangerous, a very, very dangerous way to have things... [Rory]

Similarly, Jack felt that having the notes beside him provided him with a comfort in case he forgot something:

But the files aren't there to pass you in the exam, you need to have certain bits of information in your head, so that if something triggers you can go to the file. [Jack]

Bringing their notes into the examination provided a sense of security, particularly as the students feared that, given the breadth of the FAE syllabus, they would face a requirement in the examination that they hadn't revised recently. On the whole, students recognised that the notes could only really help them out in the examination if they got stuck, or alternatively they could be used to confirm or double check one's instinctive answer. This recognition of not relying on the notes entirely during the examination arose for many students from doing the mocks (Anna, Jack and Rory) and also from peer advice (Anna and Tom).

Both Lucy and Liam indicated that they would prefer if the FAE was a closed-book examination. Lucy considers that a closed-book examination limits the breadth of questions that can be asked. Also, she feels that a closed-book examination would be more suitable for her preferred learning approach of memorisation and regurgitation. She finds having the notes in the examination distracting and she didn't like having to build the open-book aspect into her study activities. Liam's insecurity about preparing for the FAE has been well documented already in this chapter. Like Lucy, he also feels comfortable with rote

learning and was confused about what to do during his study periods if he wasn't rote learning.

Ben specifically identified that for him the open-book aspect of FAE reflected the reality of the professional work environment:

I felt that it was more realistic, you know, if you're in the office and something comes up you will look at a book and you still had the time pressure there, so it wasn't as if like you just had the answers there and ... I felt it was much more realistic to practice.[Ben]

A number of other students also related the nature of the FAE to their work. Anna contends that the epitome of the FAE is the interaction of technical knowledge and real professional activity. Jack and Lucy both recognised that their professionalism was being examined in the FAE and was akin to reviewing their ability to deal with any issue that a client or an audit manager might present them with. Additionally, Tom, Jack and Rory acknowledge that the professional aspect of the FAE influenced the way that they presented their answers in the examination. Tom was determined during his preparation that, when answering requirements in the examination, he would make them "look competent, looks professional". As Rory was preparing he similarly focused on a professional orientation to his responses. His acid test for the suitability of the form of his responses was "could you hand this up to your partner if she had to hand it over to the client in an hour?" For Jack, the professionalism of the FAE centred on his perception that it was the quality rather than the quantity of the response that was important.

C. Prior learning experiences

As the students described their learning approaches and their study activities they frequently drew comparisons with their approaches and activities when preparing for previous examinations. The most common reflection of the students was that the FAE required more of them than prior examinations because of the fact that it focused on the application of knowledge rather than on simply regurgitating knowledge. Anna captures this sentiment as she says " (it's) not a question of just

dumping it all on a page and it being applicable... you have to think about it and tailor it", whereas she recollects that, for previous examinations, the understanding of material was not always necessary and it was "quite possible to just dump data". Many of the students drew direct comparisons between the FAE and the Prof 3 examinations offered by the ICAI. All of the interviewees who presented for Prof 3 consider it to be an examination which is very focused on technical material whereas, as outlined above, the FAE was viewed as being more professional and realistic in orientation, thus combining technical and practical knowledge. Additionally, as Prof 3 was a closed-book examination, many of the students remember learning material by rote and memorising the format and layout of technical computations. As previously mentioned, rote learning was not a common feature of the students' preparations for the FAE. However, Lucy and Liam liked the Prof 3 type examination, it suited their conception of learning and their preferred learning approach and they seemed to have found it difficult to adjust to the requirements of the FAE. All but Mary thought the FAE was quite a different examination to any they had faced previously, as outlined above. She was not perturbed by the case study approach and the need to apply knowledge, she felt that she was capable of dissecting case study papers and answering them as she would any four or five questions in a regular examination. Mary contends that she found Prof 3 more difficult than the FAE because of the technical orientation of the material, with which she has always struggled⁷.

D. Training and the work environment

All of the students taking the FAE have worked for a minimum of two years in an approved training environment. Over 95% of all ICAI trainees work in chartered accountancy firms, while the remainder train through industry under the supervision of an approved Chartered Accountant. All of the students participating in the preliminary interviews are training through an accounting firm.

⁷ Interestingly, a number of students indicated a general view of accounting as a discipline which was characterised by preciseness and absolute correctness. The interviewer did not anticipate exploring students' conceptions of the discipline of accounting but it would seem an interesting issue to pursue in future research projects. In particular, it may be interesting to explore whether the students perceive that the FAE changed their view of accounting.

For the students preparing for the FAE, much of the programme was conducted before study leave, i.e. December to June, and thus they were working while attending lectures in the evenings and at weekends. For those who had completed Prof 2 and/or Prof 3 this was a familiar pattern. While it is the objective of professional education to link professional knowledge and practice, for the trainee Chartered Accountants the link between work and study is often more social in nature. For students in the big firms, they will commonly go en masse to lectures, they will be known in the firm as the Prof 2/Prof 3/FAE group and they will borrow notes and seek advice from each other. The groups ahead of them who have succeeded will relate their tales of the volumes of work to be done and the perils of study leave, but ultimately they will offer practical and emotional support. Also, for many trainees the social activities of the accounting firms can fill a large percentage of their personal time. Similar camaraderie appears to exist in smaller firms. Effectively, as reported in Coffey (1993), the training firm can become the centre of the trainee's life. It was hoped that, during the preliminary interviews, there would be the opportunity to explore the interaction of the students' study for the FAE and their work and social experiences in their training firms. Thus, their perceptions of the support provided by their training firms is now considered. Additionally, the interaction of their work experiences and their study is explored.

On the whole, the students considered that their training firms were very supportive of their studies. Tom, Lucy, Liam, Anna, Ben and Rory did not feel that the management of their firms put pressure on them, rather they felt encouraged by them. There is a general sense that the firms are genuinely disappointed for those students who fail, as Tom explains that in his firm "there is a shoulder to lean on or cry on". Both Rory and Tom say that the support given to all students derives from the fact that the firms have recruited each student and considered each one both suitably intelligent and professional to employ. Therefore, there is no feeling that the failing student is not up to it, rather it is generally perceived that he/she was unlucky. Mary and Jack are the two students who consider that there is pressure from their firms to pass their examinations. For Mary this pressure emanates from the fact that the firm pays for her training

and education. Additionally, she experienced a very explicit pressure when she was called in by one of the partners to explain the results from the mock examinations. In Jack's view the pressure in his firm is implicit rather than explicit, indeed, he describes the pressure as "cynical". He contends that many students in the firm are afraid of failing because they feel they will look stupid. Jack feels too that his good performance in the Institute of Taxation examinations prior to the FAE meant that his managers and peers placed pressure on him for the FAE:

I never failed an exam, and I didn't intend to start at the finals, but I suppose the thing was as well, I placed in the tax exams, and everyone was saying to me 'oh it'd be some laugh if you failed your finals' and I was getting this for six months. But it was only general banter but (laughing) it was in the back of my mind when I was doing the finals 'Jesus, I placed and if I fail these I'll look like an idiot'. [Jack]

There appears to be a general consensus among the students that most of the pressure relating to the FAE is pressure they put on themselves. This personal pressure seems to relate to their desire to pass the final hurdle to qualification and they also don't want to let themselves down or be isolated from their friends or colleagues who might pass. Additionally, Anna and Rory specifically mention that they wanted to pass in order to validate the support of their families. The support of the training firms and the complex personal pressure the students experienced is well expressed by Anna:

I think it's a bit of both really, it's a competitive nature as well, you know, I just wanted it for myself. And I would have done it again but the thoughts of having to do all that again was just awful, it was dreadful. I would be quite a competitive person, not aggressively at all but just quite passive, and I want to be in with the rest, I like to be up with the rest. And it wasn't any pressure that anybody at work would have given me. The partners and the managers are all very understanding about it and they'd seen people who have missed exams before, you know. It happens, it could happen because of a bad paper, you know, for a hundred different reasons. But it was purely just pressure that I put on myself and my family. Not my family, but I didn't want to disappoint them, you know, so it was just for my own reasons. [Anna]

The objective of professional education is that the training and education programmes of the professional organisation should, in tandem, appropriately

prepare the prospective member to become a professional. It is hoped that the dual approach will develop the required knowledge, skills and attributes required of professionals. Thus, it is interesting to explore students' perceptions of the interactions of their professional training and their professional education programme and examinations.

There are quite mixed views among the participants regarding the interaction of their work and their study. A number express the view that the content of the FAE syllabus is too technical and specialised and wouldn't be encountered in the working experiences of the trainee accountant, as Lucy comments:

No, the material is very, very intricate and you wouldn't really meet it on a regular basis. I mean, there would ...em... very few of the problems that we'd meet in the FAE exams would we experience here.one of my bosses was actually saying that, he said that the material that they ask is far too extensive and technical. You wouldn't really ever encounter problems of that difficulty. [Lucy]

Liam, like Lucy, works in a small firm and, while he feels that some material studied for the FAE may help him in his professional work, other material, such as aspects of the Auditing course, is too technical and complex and is more likely to be experienced by the trainees in the big accounting firms. He finds that a significant portion of the material is irrelevant to his work.

Tom's views agree somewhat with Liam's, even though he works in a big firm. Tom considers that, in his two years' training prior to the FAE, he was not exposed to much of the detailed material on the FAE syllabus. He acknowledges that once in an auditing examination he hadn't studied the material which was being examined but he was able to draw from his practical experience in order to submit an appropriate answer. However, he also considers that practical auditing may develop bad habits which inhibit study. He particularly refers to the "bane of immateriality" which may pervade auditing in practice but is not suitable for use in an examination. Mary feels that, in many respects, the training received in a small firm is more useful than that in a big firm and she feels that she has a much better foundation in basic accounting practice than her colleagues in big firms. She found that her study aids her work rather than her work experience aiding her

study. She has found that on return from study leave, she has faced new work challenges but, by drawing on some theoretical knowledge of the issue from her recent studies, she can progress with her work with confidence.

Rory contends that, by studying for the FAE, he had a better understanding of issues he is exposed to at work. He also felt that his work experience prior to the FAE aided him significantly with regard to having a professional approach in the examinations. He had a lot of practical experience in writing reports and memoranda, etc., and he feels that this was a huge benefit for the FAE. Ben also suggests that his familiarity with FAE material has subsequently helped his professional work. However, he considers that the biggest benefit of completing the FAE is the confidence it has provided him with. He feels that now he is not afraid of coming across new issues. He is confident that he can consult reference books and interpret them and also apply his knowledge from other areas. Jack also considers that the FAE has boosted his confidence. Like Ben, he is more comfortable looking at new material. Additionally, he considers that his FAE study has developed his ability to focus on the key issues of a situation and also to ensure that he has an understanding of the "overall picture". He feels too that the FAE aided his professional orientation. However, he doesn't consider that the FAE provided him with technical knowledge that is suitable for his work. As Jack is training in the taxation department of a big firm, he considers that the taxation elements of the FAE were too basic for his practical work.

This section of the chapter has focused on exploring the variables which appear to influence students' approaches to learning. At the outset, the variation in students' conceptions of learning was explored. Then their perceptions of the nature of the FAE, their prior learning experiences and the interaction of work and study were examined. The critical aspect of all of these issues is that they shape the students' perceptions of the requirements of the FAE and hence influence their learning approaches.

Having examined students' approaches to learning and identified a range of factors which appear to influence those approaches, the following section now briefly explores the outputs of the FAE learning process.

6.3.3 Learning outcomes

During the preliminary interviews, three potential outputs of the FAE learning process were explored with the participants: actual success/failure in FAE, their reflections on what it takes to succeed in the FAE, and the impact of success/failure on their professional work and training.

In terms of actual success, six of the eight participants in the preliminary interviews were successful at FAE 2000. Two, however, were unsuccessful. Lucy was required to repeat the FAE in full in September 2001 and Liam had to repeat the Auditing paper⁸. When reflecting on FAE success and failure, all of the students reminisce about the week of the examinations. As is revealed below, the FAE week itself is one of high tension and emotion.

A number of the students indicated that, as the end of study leave approached, they were anxious to start the FAE, as the sooner they started the examinations the sooner they would be finished. However, there was a consensus among the participants that the first examination, Auditing, was deemed to be an awful paper and caused huge concern for all the FAE students. Liam indicates that the problem he experienced with the auditing paper was that he had trouble identifying what the questions were requiring. He comments that he was very well prepared to answer a question on computer auditing, but he didn't find one on the paper. However, it emerges that there was a question focusing on computer auditing but it was presented in a way that he didn't recognise. Thus, he contends that it wasn't that he didn't have the knowledge but he couldn't identify what knowledge to use to answer the questions asked. Anna remembers being totally stunned after the auditing paper and she refers to the paper as a 'nightmare', as does Ben. Jack reflects that it was the emphasis he had put on developing his examination approach which saved him when facing the auditing paper and Rory remembers that the paper was so different to his expectations that he didn't follow the plan he had for dealing with the paper. Despite the problems with the auditing paper, there was a feeling that the remaining papers were as expected and were

⁸ Liam passed the FAE in 2001; Lucy failed in 2001 but passed in 2002.

fair. Also, the students were just delighted to get to the end of the week. Anna animatedly describes her experience of the examination week:

I was panicky, I was quite panicky, but I knew that wasn't going to help me at all and I was just waiting to get them over with, so I was quite calm and I also looked around at the other people and I thought... 'well I'm just the same as the rest of them really, so I'm in the same boat and I've done okay so far', so I tried to have a bit of confidence in myself. After the Auditing paper, it was a complete nightmare.... a complete nightmare. I can't even remember what was on it, you know, but after it I went home and I was in a terrible state, like it was awful. My brother read it and I said 'Graham, I've done this and I left this one out and everything' and he just looked at me and I went 'I've failed this'. So I don't think I did anything that night just went to bed and slept and then the next day was Tax and Financial and it went better and then at that stage I was half way through and I was 'Friday was coming'. Management was okay and then the Strategy paper was fine as well and it was Friday and I'm away down the road. But I noticed... also there was a girl two seats behind me, Maybeth Wilson, who got first in Ireland, don't be quoting this like (laughing) and she kept saying to me 'oh I left that out and oh I got this all wrong and everything' and I thought to myself if she's getting it wrong I'm going to be okay. And there were people walking out and everything and I kept thinking 'at least I'm still here'. So I tried so hard but after the Auditing paper I was in a really bad way and, you know, I contemplated not going in the next day, it was dreadful. But after that it wasn't too bad. I tried to take it in my stride. There's no way out really other than to get to the end of the week. [Anna]

Anna's description captures the whirlwind of emotion that the students experienced during the FAE week. Lucy describes the week as being very stressful and very tiring. Rory too, talks of how he tried to go swimming each day after the examinations to try and wind down and counteract the tiredness he experienced during the week. Ben reflects that the week was just a "blur" and he was totally shattered by the end of it.

In terms of the students' perceptions of the factors which contributed to their success or failure, a number of issues were raised. The two unsuccessful students felt that they never got to grips with how to use their notes effectively in the examinations. Lucy felt that in some respects the open book nature of the FAE meant that she wasn't as familiar with some material as she should have been. Also, she mismanaged her examination time by inappropriately using her notes:

I didn't trust what I knew and I actually knew it and I said 'well, just to double check it I'll go to the books'. [Lucy]

Liam also felt unsure about using material during the examination:

But even when I knew where stuff was I wasn't ... you know, I felt I was kind of wasting time, up and down, picking up stuff, glossing through it, writing it down...[Liam]

Despite all the preparation and organisation of files and materials many of the students made very little use of the material during the examination. As identified earlier, it was recognised that having the material available during the examination reduced the fear of being faced with a totally unexpected issue. It emerged that in the end many of these students made little reference to their notes during the examinations. Additionally, there was recognition by a couple that it wasn't intended that the FAE could be completed by copying sections out of books or lecture notes, as Ben reflects:

I was conscious that what I had in the books everybody else had, and you don't want to be just writing down out of the books. So unless there was something I didn't know I tried to answer it, because I mean in a case study a lot of it is your experience and, you know, there's no answer in the book, it's the theory and you have to put it all together.[Ben]

This sense of differentiating his responses from those of other students is similar to Tom's efforts in his preparation to identify and integrate material that might "give you an edge". On the whole, the students perceived that appropriate usage of material during the examination was a critical success factor. In addition, a number of students identify good time management in the examination as being important. As Lucy says "I'd say about 30% of the examination is about being able to spend the right amount of time".

Very much linked to performance in the examination was the perception that good preparation was a pre-requisite for success. Many of the students repeatedly refer to the benefits of preparing their material well and of practising examination type questions and cases. Interestingly, Mary does not think a deep understanding of the FAE material is required in order to be successful. While the other students don't explicitly state that they consider deep understanding to be a critical success

factor, it is implied in their comments regarding the importance of being able to apply knowledge and to move away from the process of simply regurgitating material in an examination. Both Rory and Jack emphasise the importance attached to having a professional approach to preparing answers in the examination. Additionally, Jack and Tom reiterate the benefits they consider are associated with using one's common sense in the examinations.

With regard to the effect of the FAE on the students' work and career progression, the thoughts of the students who were unsuccessful are interesting. Firstly, Lucy does not feel that failing the FAE has impinged on her work. She said failing the examinations is a personal disappointment but she still works as well as before and she doesn't perceive that her work colleagues view her differently. Liam considers that success at work is more appropriately a function of performance in the workplace. He doesn't consider that examination success should impact on his progression in the firm. However, many of the students who passed the FAE have a different perspective. As highlighted earlier, Jack feels that completing the FAE has given him additional confidence in his abilities and he now feels more comfortable dealing with new situations and issues in the workplace. He considers that superiors in his firm always have a question mark over the head of a trainee who fails professional examinations and this affects the trainee in a variety of ways. Firstly, it affects the student's confidence, additionally it affects the type of work that the student is allocated. Jack considers that he has been given the opportunity to do more non-routine work since he completed the FAE. Also he feels that the managers in the firm now view him as a professional rather than just a trainee, thus he concludes "it really is important to get them first time". Ben concurs that the FAE study process and his success at FAE 2000 have given him added confidence in the workplace. Anna has seen the benefit of her success already in that she was promoted to the role of supervisor six months after she completed the FAE. Indeed, success at the FAE in 2000 has freed Tom, Jack, Mary, Anna, Ben and Rory to contemplate the next stage in their careers.

6.4 Summary

At this point, the analysis of the preliminary interviews has been presented and some conclusions to aid the later stages of this study can be drawn. Firstly, one of key objective of the preliminary interviews was to establish if concepts such as learning approaches, as identified in the higher education research literature, were evident among the students preparing for the FAE of the ICAI. It emerges that the different types of learning approaches previously identified in other contexts were prevalent among the FAE students. As was highlighted earlier in the chapter, there was evidence that some students sought meaning in their studies, they integrated material from different sources, they reflected on the interaction of their work experiences and their study and they focused on being able to apply knowledge in new contexts. All of these aspects of students' approaches to learning are consistent with what has been labelled in the higher education literature as a deep approach. Additionally, many of the characteristics of what is known as a strategic approach were in evidence, in that the students preparing for the FAE are extremely focused on the examinations. Many students' study activities are predicated on their perceptions of how best to earn marks in the examination, they are alert to examination cues and they gear their study to best prepare them to meet the examination requirements. Elements of the surface approach were also present in students' descriptions of their learning for the FAE. Some showed a degree of apathy about their studies, they had little interest in the material and they failed to engage in their study activities. Also, there was a recognition that learning without understanding could be adopted (even though most had identified that this was unsuitable for the FAE) and some students adopted the approach at various points. Thus, it would appear that the variation in learning approaches of students preparing for the FAE of the ICAI are similar to those identified in the higher education context. Hence it would seem appropriate to conclude that the approaches to learning descriptors of deep, surface and strategic, could be extended for use in the FAE learning environment.

With regard to identifying factors in the learning environment which influence students learning for the FAE, more data than expected was gathered during the preliminary interviews and this proved to be quite illuminating. It appears that the

students have quite a developed view of the requirements of the FAE which has been formed from a variety of sources. Students formed their perceptions of the FAE from their experience of the FAE programme - lectures, mock examinations - and from their friends and colleagues who completed the FAE previously. Additionally, their learning approaches were influenced by their conceptions of learning and by their own prior learning experiences. However, the preliminary interviews depicted a picture of less interaction between work and study than might have been anticipated given the professional orientation of the FAE.

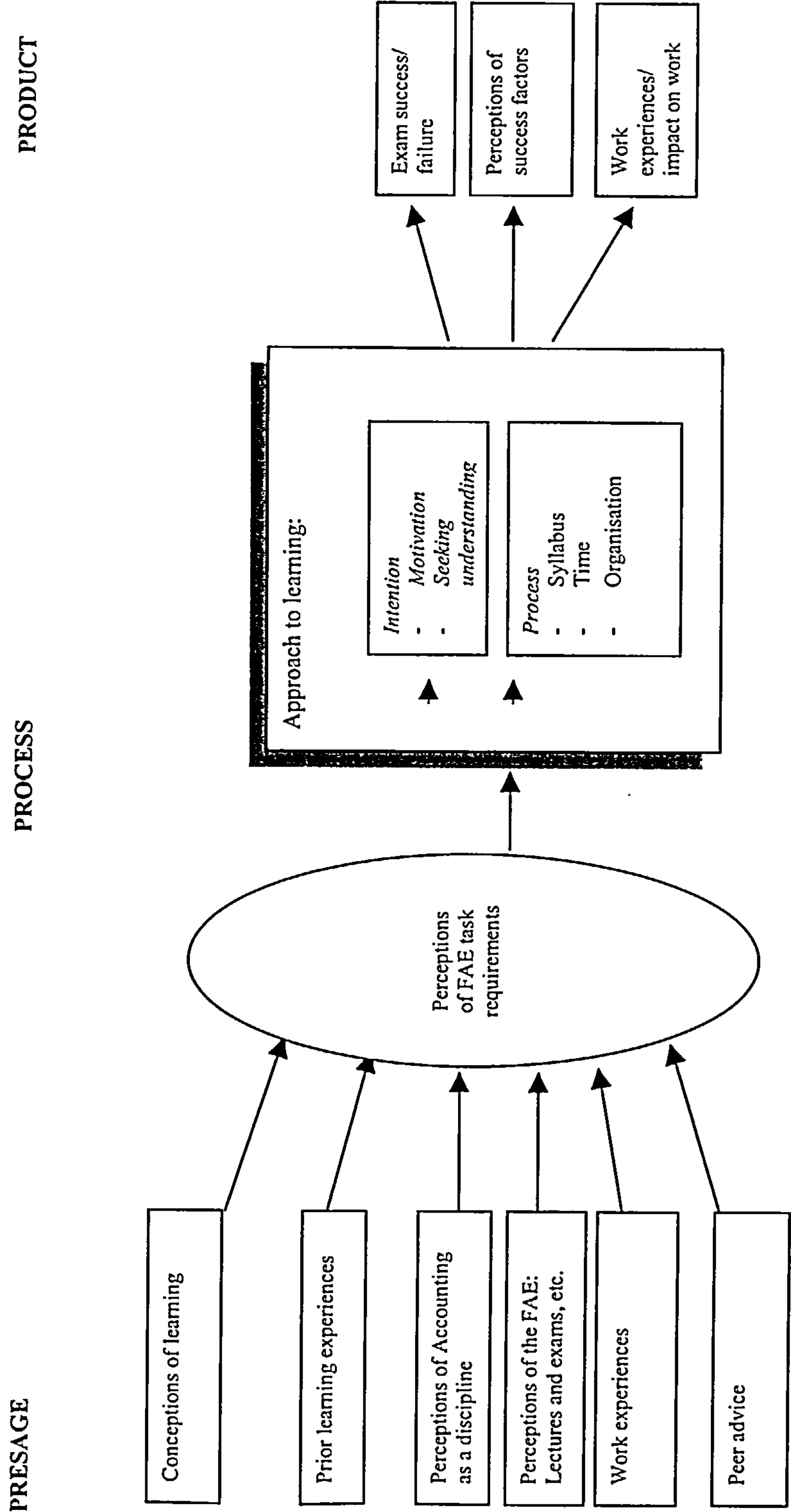
At this stage a tentative model of students' learning in the context of the FAE of ICAI can be proposed (see Figure 6.2). This model draws from the models of students' learning in higher education (Section 3.3.3) and the research findings presented in this chapter and suggests that the factors influencing the students' learning approaches are varied, from aspects common to the higher education models (i.e. conceptions of learning and prior learning experiences) to factors which are unique to the professional environment (i.e. the impact of work on study). In terms of the outcomes of learning associated with the FAE, the preliminary interviews identified three potential aspects worthy of further consideration. Firstly, it will be interesting to explore whether the expected relationships between learning approaches and the learning outcome expressed as the actual success or failure of the students at the FAE exists. A second outcome of the FAE learning process is the students' perceptions regarding factors which they consider impact on the likelihood of success or failure. (This could be an important avenue of consideration as the sharing of experience among students from year to year influenced the approaches students took to their preparation.) Another potential outcome of learning from the FAE programme is the impact of FAE success on their perceptions of how they are viewed in the workplace and the effect success has on their career progression.

In conclusion, this chapter has described and analysed the first stage of interviews conducted as part of this study. The chapter commenced with the description of data collection aspects of the interviews. The rationale for the sample selection, the technical aspects of the data collection and the process of analysis were considered. The analysis of the students' learning during the FAE 2000

programme was then presented and the different learning approaches identified were analysed. Factors which influenced those learning approaches and the outcomes of learning were then examined and a tentative model of student learning in the context of the FAE of the ICAI was presented. Thus, the findings from this stage of the study inform the design and conduct of the subsequent phases of the study, which explore the learning of the FAE students in 2001. Specifically, the next phase of the study, reported in Chapter 7, presents a quantitative examination of the learning approaches, conceptions of learning and preferences for courses and teaching, of a large sample of the students registered for FAE 2001. The final phase of empirical work, drawing on the understanding gained from the preliminary interviews and the quantitative analysis of Chapter 7, explores more thoroughly the qualitative variation in students' learning approaches when preparing for the FAE (Chapter 8) and their perceptions of the outcomes of the FAE process (Chapters 9 and 10).

One additional reflection worthy of communication at this stage in the study is the researcher's conviction concerning the individuality of the learning process. Similarities and differences in the learning approaches of the students participating in the preliminary interviews have been drawn. Likewise, the distillation of the variety of perceptions of the factors influencing learning and the outcomes of learning into overarching themes has occurred. However, the researcher has lasting impressions of the interview participants as unique individuals with many personal experiences. Their stories of the FAE are individual experiences and their ways of talking about those experiences are also unique and the individuality of learning shouldn't be forgotten as models and theories are developed.

Figure 6. 2: Student learning when preparing for the FAE: A tentative model



CHAPTER 7

FAE 2001: A QUANTITATIVE EXPLORATION OF APPROACHES TO LEARNING

7.1 Introduction

7.2 Measuring approaches to learning

7.2.1 *The development of the Approaches and Study Skills Inventory for Students (ASSIST)*

7.2.2 *Sample selection and data collection*

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7.5 Summary

7.1 Introduction

In Chapter 6 it was established that FAE students demonstrate qualitative differences in learning approaches as they prepare for the examinations. Additionally, it was shown that the various approaches described by the FAE students are similar to the deep, surface and strategic learning approaches extensively reported among higher education students. One of the principal objectives of this chapter is to determine the dominant approach to learning of students as they prepare for the FAE. Knowledge of the approaches adopted by FAE students will, firstly, enhance the understanding of student learning in the professional accounting education environment in Ireland. Secondly, analysis of FAE students' learning approaches will facilitate the evaluation of the desirability of their approaches given the objectives of professional accounting education. In conjunction with the analysis of the learning environment of professional accounting students, conducted as part of this study and reported in other chapters, the study expands the literature on student learning to a new context with the potential to aid educators in the accounting profession as they review and develop their education programmes.

While no instrument has been developed to date which specifically measures learning approaches of students within pre-qualification professional education, many such instruments exist for use in the higher education context. Therefore, given the similarities of the FAE students' learning approaches to those reported among students in higher education, the measurement of the learning approaches in this study is conducted using one of those higher education instruments, namely, the *Approaches and Studies Skills Inventory for Students (ASSIST)* (ASSIST, 1997). However, ASSIST must be firstly validated for use in this new context.

The structure of this chapter is as follows. Firstly, the nature of ASSIST and its development is examined. Secondly, the validation of the instrument for use with FAE students of the ICAI is presented. The collection of data using ASSIST from a sample of FAE 2001 students is then described. Results from the quantitative

data analysis are subsequently examined and discussed and, finally, the implications of these findings are considered.

7.2 Measuring approaches to learning

7.2.1 *The development of the Approaches and Study Skills Inventory for Students (ASSIST)*

As outlined in Chapter 3, a number of standardised questionnaires has been developed to facilitate the measurement of the learning approaches of large groups of students in higher education. The *Approaches to Studying Inventory (ASI)* is probably the most widely used such questionnaire (Richardson, 1994). It was developed by Entwistle and his colleagues at Lancaster in the late 1970s (Entwistle and Ramsden, 1983) and drew heavily from the work of many researchers exploring student learning in higher education at that time (e.g. Marton and Saljo, 1976a and 1976b; Biggs, 1976 and 1979; Pask 1976). The ASI went through a number of development stages, but the final version of the original instrument attempted to measure differences in students' learning across 16 subscales, grouped into four main scales (see Table 7.1).

In the first major study using the ASI, Ramsden and Entwistle (1981) gathered data from 2,208 students of six different disciplines at 54 higher education institutions across Britain. While the factor analysis of students' responses identified four factors, only two could be clearly recognised as a meaning orientation and a reproducing orientation. The other two factors did not clearly identify with the achieving orientation or styles and pathologies constructs as designed. Subsequent to this study the ASI was widely used in studies in a number of countries and across disciplines. These studies, on the whole, replicated the findings of the original study in reporting that the ASI measures a meaning orientation and a reproducing orientation to studying. However, other constructs are much less consistent across the studies, with particular problems being associated with a variety of the achieving orientation and styles and pathologies subscales (Richardson, 2000, p107).

Table 7.1 Subscales contained in the final version of the original ASI

<i>Meaning orientation</i>
Deep approach
Interrelating ideas
Use of evidence
Intrinsic motivation
<i>Reproducing orientation</i>
Surface approach
Syllabus boundness
Fear of failure
Extrinsic motivation
<i>Achieving orientation</i>
Strategic approach
Disorganised study methods
Negative attitudes to studying
Achievement motivation
<i>Styles and pathologies</i>
Comprehension learning
Globetrotting
Operation learning
Improvvidence

Source: Entwistle and Ramsden, 1983, p.45

In addition to some problems with a number of the original ASI subscales, it was felt that, with 64 items, the length of time taken to complete the questionnaire may restrict the opportunities to use it in a classroom setting or may lead to poor responses if used in a postal study. Thus, it was felt by the instrument's developers and other researchers who had used the original ASI, that a shortened form of the instrument would be useful. A number of shortened versions were developed: 30 item version (Entwistle, 1981); 18 item version (Gibbs et al., 1988); 32 item version (Ramsden et al., 1986 and 1987), which focused on a shortened number of subscales from the original ASI. Of these shortened instruments, Richardson (2000, p.123) contends that only the 32 item instrument possesses the psychometric properties necessary to support its use for research purposes.

The proliferation of shortened versions of the ASI and their associated problems, in conjunction with the findings of ongoing research exploring student learning, prompted Entwistle and his colleagues to revisit the instrument in the 1990s. A *Revised Approaches to Studying Inventory (RASI)* was devised in 1992. The RASI contained 60 items and measured five constructs: deep approach, surface approach, strategic approach, apathetic approach and academic aptitude. Tait et al. (1998, p.264) report that the RASI developers were very satisfied with the factor structure and the internal reliabilities of the scales. However, while Richardson (2000, p.123) acknowledges the satisfactory psychometric properties of the instrument, he reports that there have been doubts over the selection of the items within the instrument.

In the late 1990s, Entwistle and his colleagues re-conceptualised the ASI resulting in a new inventory, ASSIST. The new inventory emerged from the compilation of work done by Entwistle and many others using the ASI, RASI and other versions of the instrument. In addition to reviewing all the studies which had used the ASI in any form, the developers were cognisant of ongoing research on student learning. They were anxious that their new instrument would capture the important dimensions which were emerging in the research literature, such as collaboration in learning and metacognitive awareness, as well as characteristics of the approaches to learning already identified. A lengthy process of trialling items for the new ASSIST inventory was undertaken and the developers were determined that both conceptual and empirical analyses would justify the inclusion or exclusion of items from the inventory (Tait et al., 1998, p.265).

The resultant ASSIST instrument contains 52 items relating to students' approaches to learning, constituting 13 subscales and three main scales. Students respond to the 52 items on a five point Likert scale, which ranges from '1 = disagree' to '5 = agree'. In addition, the instrument was extended to capture students' perceptions of other issues associated with studying at higher education such as conceptions of learning and preferences for different types of teaching. The factor structure of the scales and the internal reliability of the items is reported to be primarily very stable and satisfactory and it is envisaged that the instrument could aid educators to better understand their students' learning in a

variety of ways (Tait et al. 1988, pp. 266-270). It has emerged that, since the original final version of the instrument was designed, there have been minor changes to the instrument in that the 'collaborating' subscale, which did not load as conceptually envisaged on the deep scale in the factor analysis, was removed, and the strategic approach scale was enhanced by the inclusion of an 'alertness to assessment demands' subscale (see Table 7.2 for the latest version). One of the principal differences of ASSIST to its forerunners is that the developers have identified some of the subscales as 'related motives' and have indicated that these subscale scores should not automatically be summed with the other subscales within a main scale as they may not be associated with the main scale for every student. Thus the appropriateness of including the related subscales should be considered in the case of each study (Tait et al., 1998, p.270).

Table 7.2 ASSIST - Approaches to learning scales and subscales

<i>Deep Approach</i> Seeking meaning Relating ideas Use of evidence Interest in ideas (related sub-scale)
<i>Strategic Approach</i> Organised studying Time management Alertness to assessment demands Achieving (related sub-scale) Monitoring effectiveness (related sub-scale)
<i>Surface Apathetic Approach</i> Lack of purpose Unrelated memorising Syllabus boundness Fear of failure (related sub-scale)

Source: ASSIST, 1997

The first version of ASSIST was presented in 1997 and to date there has been little research published which has used the instrument. However, this researcher and a number of her colleagues have been involved in a project embracing a series of studies over the past four years using ASSIST. As a primary part of this project

ASSIST was validated for use with university business and accounting students in Ireland, replicating, on the whole, the factor structure and internal reliabilities as reported in the Tait et al. study (Byrne et al., 1999). Further aspects of this research project have analysed the approaches to learning of European Business students in Ireland (Byrne et al., 2002b) and also have explored the relationship between learning approaches and learning outcomes of Accounting students (Byrne et al., 2002a).

ASSIST has not been used previously with students in a professional education domain. Only one study was found which used a version of the ASI in that environment and in that study neither a conceptual nor statistical validation of the instrument for use in that context was reported (Hassall and Joyce, 1997, 1998 and 2001). In the case of the current study, the use of ASSIST with professional accounting students in Ireland has been validated conceptually by the qualitative aspects of this study which have shown that FAE students demonstrate the variations in learning approaches which are captured and measured by ASSIST (see Chapter 6).

A copy of ASSIST and permission to use the instrument was received from Noel Entwistle, Centre for Research on Learning and Instruction, University of Edinburgh. Before the instrument was distributed, the student profile data requested in the introduction to the instrument was enhanced to reflect the context of FAE students. Students were requested to identify their employer, provide details of their higher education - degree programmes and overall results, and to record which, if any, examinations of the ICAI they had previously completed. A copy of the instrument distributed is provided in Appendix D. A minor word change was made to two items in the main part of the instrument. The two items in question made reference to studying "here", and so were changed to refer to studying "on this course" (items 2 and 30). The researcher made this change because, unlike in higher education, for which the instrument was originally intended, there is no sense of an institution when studying for the FAE, there is only the programme or course itself. Thus, the word-change more properly reflected the context of the targeted students, without invalidating the meaning of the two questions involved.

The instrument was then piloted to ensure that the profile data requested was clear and that the items in the main instrument made sense to students in the environment of professional accounting education in Ireland. The small group of students used to pilot the instrument were all students who had recently completed the MBS in Accounting programme at an Irish university. An email was sent to the MBS in Accounting class (35 students) requesting volunteers to pilot the instrument, and eight students offered their assistance. Each of these students is intent on a career in accountancy. All of them had completed a specialised undergraduate degree and the successful completion of their MBS programme gives them exemptions from all of the examinations of ICAI except the FAE. Indeed, the FAE of the ICAI will be the next examination that these students will take. All of the students in the pilot group have been recruited by accounting firms and they commenced their training programme in September 2001. The students are very familiar with the training and education environment of the ICAI and the nature of the FAE. Many of them have worked in accounting firms in the summer months during their years at university. Thus, it was considered that these students could satisfactorily evaluate the form and presentation of ASSIST for use in the FAE environment.

All of the students in the pilot group indicated that they found the instrument easy to complete. They felt that the profile data requested was unambiguous and concise and the instructions regarding the main part of the instrument were clear. They also had no difficulty responding to any item in the main part of the instrument. Therefore, the form and presentation of the instrument was deemed suitable for distribution to the FAE students. The students in the pilot group indicated that it had taken them approximately 10-12 minutes to complete the instrument, which was useful information to acquire for planning the data collection with the FAE students.

Thus, ASSIST has been conceptually evaluated for use with FAE students through the qualitative aspects of the study already reported and the form and nature of the instrument have been reviewed as suitable by an appropriate pilot group. However, in any instance that a standard instrument is intended for use in a context outside that in which it was developed, it must be statistically validated

for use in that context. Therefore, following the description of the sample selection and data collection, the chapter presents the statistical validation of ASSIST for use with FAE students of the ICAI.

7.2.2 Sample selection and data collection

The population for this phase of the study is the 942¹ students presenting for the FAE in September 2001. As direct access to all the students was not feasible (the ICAI was unwilling to supply a complete contact list for the population) and indeed it was considered that valid data could be satisfactorily collected from a subset of the population, attention moved to the identification of a suitable sample for the study. One option with regard to gathering ASSIST data was to select a representative sample of the population and to gather the data from that sample through a postal survey. This option was rejected for a number of reasons. Firstly, as the intention of this study is to develop an understanding of student learning within an interpretive framework, the development of universal laws and hence generalisability of results was not the primary concern. Secondly the possibility of a low response rate from a postal survey was real, whereas a relatively high number of responses was required in order to statistically validate the instrument for use in the professional accounting context in Ireland. Many studies using versions of the ASI (forerunner of ASSIST) have been criticised for using small sample sizes (see Richardson, 2000, pp. 86-123). Wilson et al. (1997, p.34), in considering the required sample size for validation of standard instruments in new contexts and reporting the work of Guadagnoli and Velicer (1988), indicate that "a minimum sample size of 150 has been empirically demonstrated as necessary for moderate factor loadings (0.60), and a range of 300-400 for weaker loadings (0.40)". Given the traditionally low responses to mail surveys, the researcher considered that a very large sample would be required in a postal survey in order to ensure a response rate that would yield a minimum of 150 usable replies. Thus, consideration was given to alternative sample selection and data collection approaches.

¹ Data provided by J.Conway, ICAI, and embraces students taking the FAE for the first time and those retaking it.

Studies using questionnaires to gather data on students' approaches to learning have commonly gathered that data in the classroom setting. The researcher intuitively liked this approach for a number of reasons. Firstly, by collecting the data directly from students in the classroom setting the purpose of the study and the nature of the questionnaire can be explained in a personal manner. Also, any questions or queries that students might have can be addressed immediately. The reassurance that the personal contact affords, and the allocation of time during a standard lecture to complete the questionnaire, increases the likelihood that all students present will respond. Additionally, this mode of data collection is very efficient from the researcher's perspective, as a well-attended lecture provides a large number of responses from a single session. There are, however, a number of downsides to collecting the data in a lecture session. Firstly, no matter how good the contact with the lecturer and the arrangements made by the researcher for the data collection, there is a risk that the time schedule of the lecturer will deviate from the plan and insufficient time will remain to gather the research data. Also, even if there is sufficient time for the students to complete the questionnaire fully, there is the risk that they will complete it hurriedly in order to leave the lecture theatre quickly. There is the additional risk that as the students are completing the questionnaire side by side they may be unduly influenced by their friends in their responses, rather than responding independently. Despite these potential drawbacks to the collection of data in a classroom setting, the researcher felt that the benefits of the approach far exceeded the drawbacks, and with careful planning and effective communication and explanation with the students that these risks could be reduced. Therefore, the decision was made to collect the data from the FAE 2001 students during lecture time.

Having decided to collect the research data from FAE students during lecture time the assistance of the administrative staff of the ICAI was required. As already indicated, lectures for the FAE programme take place at various centres around Ireland and are offered from December through to August. The researcher felt that it was most appropriate to collect the data during a lecture in the later part of the FAE programme in order to ensure that the students had a clear view of the FAE and had started their serious preparation. As was reported in Chapter 6, the students who participated in the preliminary interviews described how, in the

early parts of the FAE programme, they concentrated on being familiar with the syllabus and collecting all the notes, whereas their serious preparation for the examinations was focused during the study leave period in the weeks prior to the examinations themselves. The level of lecture attendance in the later half of the FAE programme was discussed with the ICAI staff and it was identified that large attendance was usually experienced during the block release lectures which took place in the major centres in the later part of June. These block release lectures take place after most students have commenced their study leave and are in advance of the mock examinations which take place in early July. The two largest lecture centres are in Dublin and Belfast. According to ICAI data, 52% of FAE 2001 students were registered to sit their examinations in Dublin and 17% in Belfast. Thus, it was likely that those students would select to attend lectures at these two locations. Furthermore, many other students who were scheduled to sit the FAE in regional centres such as Limerick or Derry, could attend the block release lectures offered in Dublin or Belfast as no lecture programme is offered in the regional centres. Thus, the potential to access a large number of students at the two main centres is significant. While lecture attendance is voluntary and some students might choose not to attend the lectures, the researcher decided to collect the research data from the students attending these two centres. ICAI staff made contact with the relevant lecturers to ensure their support and to make the relevant arrangements. It was agreed by both lecturers to allocate 15-20 minutes at the end of their morning sessions in order to allow for the data collection. Both reassured the researcher and ICAI staff that they would ensure that they would not cause the data collection time to infringe on the lunch break of the students.

The data from the Belfast students was collected on Wednesday, 20 June 2001 at the end of an Auditing lecture, whereas the Dublin data was collected on Friday 22 June 2001 at the end of an Ethics lecture. The researcher was present in both instances in order to oversee the collection of data personally. At the outset of the allocated time for data collection, the researcher introduced herself to the students, outlined her research project and stressed the important role the students could play by completing the distributed questionnaire fully and honestly. The students were reassured regarding confidentiality and they were encouraged to seek clarification concerning any issues they might have with regard to the study

or the questionnaire itself. No issues were raised in either location. Due to the expected size of the Dublin group, the researcher was accompanied by two friends in order to ensure the speedy distribution and collection of questionnaires.

The number of completed questionnaires gathered was 325 in total and all responses were usable in some form. Each completed questionnaire was numbered and the responses were coded and entered into an SPSS file. The completeness and accuracy of the entered data was reviewed by examining the descriptive frequencies of the items. Scores were then calculated for the 13 approaches to learning subscales by adding the scores recorded for the relevant items. If a student had not responded to an item, then no score was calculated for the relevant subscale for that case. In other words, subscale scores were only calculated for a student where valid responses were recorded for all the relevant constituent items. Furthermore, descriptive frequencies were examined to ensure the accuracy and completeness of the computed values.

Ultimately, the sample used in this phase of the study was a convenience sample of students attending the Dublin and Belfast block releases. In 2001, there were a total of 942 students registered for FAE. Thus the sample size used in this study of 325 captures 34.5% of the population. However, as the data in this study was gathered at block releases, it must be recognised that students, particularly in the Republic of Ireland, who are retaking the FAE often do not register for ICAI lectures and block releases, preferring to attend revision courses offered by a private college in Dublin. Thus, it may be more appropriate to view the population, for the purposes of evaluating sample size, as the students who were attempting the FAE for the first time. There were 698 students making their first attempt at the FAE in 2001, and the sample of 325 represents 46.6% of this population.

It has already been stated earlier in this section that, as the intention of this study is to develop an understanding of students' learning within an interpretative framework, the generalisability of the results is not a primary concern. Nevertheless, as the data is available, it is interesting to examine the make-up of the sample used in this study compared to the population. Three key

characteristics of the FAE population are: gender, training and prior experience of ICAI examinations. The analysis of the population and the sample by reference to these characteristics is presented in Table 7.3 and it clearly reveals that the profile of the sample is similar to that of the population. Further evidence of similarity is presented later in the chapter when FAE 2001 pass rates are examined.

Table 7.3 Comparison of population and sample

		Population	Sample
Gender:	<i>Male</i>	50.5%	47.2%
	<i>Female</i>	49.5%	52.8%
Training:	<i>'Big 4'</i>	45.9%	49%
	<i>Non-'Big 4'</i>	54.1%	51%
Prior ICAI exams:	<i>Prof2/3</i>	82%	75%
	<i>Exempt</i>	18%	25%

7.2.3 Statistical validation of ASSIST for use in the FAE context

To evaluate the appropriateness of ASSIST in the FAE environment a number of validation tests must be conducted on the data gathered. Firstly, to measure the degree of internal reliability of the three main approaches to learning scales and the 13 subscales, Cronbach's alpha values were determined. The alpha values for the main scales, including the related subscales, ranged from 0.81 to 0.86, whereas those for the subscales varied from 0.47 to 0.80, with a median of 0.61(see Table 7.4). The values for the main scales compare favourably with those reported in Tait et al. (1998) and Byrne et al. (1999). Additionally, the alpha values for the subscales are satisfactory on the whole. Tait et al. (1998) contend that values in excess of 0.50 are acceptable in this type of study, thus the only alpha value not attaining this level is that of the 'organised studying' subscale. However, at 0.47 the alpha value is only marginally below the accepted minimum, thus it does not cause undue concern.

Table 7.4 Cronbach's alpha values for the main scales and subscales

	<i>Alpha value</i>
<i>Deep Approach- including related subscale/(excluding)</i>	<i>0.86/0.83</i>
Seeking meaning	0.65
Relating ideas	0.60
Use of evidence	0.58
Interest in ideas (related sub-scale)	0.76
<i>Strategic Approach- including related subscales/(excluding)</i>	<i>0.81/0.72</i>
Organised studying	0.47
Time management	0.55
Alertness to assessment demands	0.63
Achieving (related sub-scale)	0.59
Monitoring effectiveness (related sub-scale)	0.54
<i>Surface Apathetic Approach- including related subscale/(excluding)</i>	<i>0.82/0.75</i>
Lack of purpose	0.71
Unrelated memorising	0.60
Syllabus boundness	0.61
Fear of failure (related sub-scale)	0.80

Factor analysis was then conducted on the subscales to determine whether they are capturing the three approaches to learning as envisaged conceptually. Factor analysis consists of a variety of statistical techniques the aim of which is to simplify complex data sets by representing a set of variables in terms of a smaller number of hypothetical variables (Kline, 1994, p.3; Kim and Mueller, 1994a, p.3). In social science research, factor analysis is usually applied to the correlations between the variables (Kline, 1994, p.3). Each variable is deemed to comprise a unique element and a part which is common to the other variables. Thus, factor analysis focuses on the interrelationship among variables to identify a set of factors which capture the underlying dimensions of the data.

When using factor analysis, the researcher must make decisions regarding various aspects of the techniques. One of the first decisions to be made concerns the determination of the number of factors to be extracted. Under- and over- factoring can both cause distortions in the resulting solution, with the extraction of too few factors being the most problematic. A number of tools exist to support the

researcher in deciding on the number of factors (Kaiser-Guttman rule, scree test, test of significance and percentage of variance extracted). However, Tait (1992, pp.56-58) reiterates that such tools should be used only as guidelines and, rather than relying on a single test, researchers should also use their conceptual understanding of the data to identify the optimal number of factors, based on interpretability. In the current study, factor analysis is not being used in a purely exploratory form as the data has been gathered using an existing instrument, which has been used and tested in other contexts. Thus, as is outlined below, a combination of the Kaiser-Guttman rule and an understanding of the expected underlying dimensions of the data were used to determine the number of factors extracted in this study.

There are a number of methods of extracting factors from a set of variables, some of the most common of which are: maximum likelihood method, least-squares method, alpha factoring, image factoring and principle component analysis (Kim and Mueller, 1994a, p.42). From a practical perspective, the differences in the solutions of many of the extraction methods are often trivial when communalities are high (Kline, 1994, p.49). The objective of the extraction process, from a theoretical perspective, is to determine the minimum number of common factors which would satisfactorily produce the correlations among the observed variables (Kim and Mueller, 1994b, p.80). Maximum likelihood extraction is commonly used in studies employing inventories like the one used in the current project. Kline (1994, pp.49-50) contends that this form of extraction has become popular due to the development of powerful multivariate statistical computer packages. The benefits of the approach had been recognised for many years previously but the mathematics associated with the technique are highly complex, making it an uncommon choice among researchers until the enhancement of technological tools. Tait (1992, pp.55-56), in her thesis, which embraces the use of the ASI (in some cases in a modified form) in new contexts and with new objectives, puts forward compelling support for the use of the maximum likelihood method. She outlines that, as this method of extraction assumes that the general form of the population distribution is known, it allows it to be used as a 'half-way' measure between exploratory factor analysis and confirmatory factor analysis. As indicated earlier, the current study is not employing factor analysis in a purely exploratory

way, nonetheless, as in the Tait study, the use of a previously developed instrument in a context with a different population means that confirmatory factor analysis is not wholly appropriate either. Thus, the use of maximum likelihood extraction as a 'half-way' approach seems suitable for the current study.

To improve the interpretability of the initial output of factor analysis, typically the emerging factors are rotated. The most common rotations are orthogonal rotations and oblique rotations. Orthogonal rotations are used when the factors are uncorrelated, which means they are unlikely to be appropriate in many studies, as Cattell (1978, p.128) argues, "we should not expect influences in a common universe to remain mutually uninfluenced and uncorrelated" and constraining factors to artificial orthogonality "destroys both the correctness of the pattern discovered and its constancy from one research to another". Oblique rotations do not require factors to be uncorrelated and, thus, they allow more freedom in selecting the position of factors in the factor space (Kline, 1994, p62). Furthermore, if, after making an oblique rotation, the resulting factors are orthogonal, the researcher can be assured that this outcome emerges from the data rather than simply being a function of the rotation method selected (Kim and Mueller, 1994b, p.105). It is clear from the basic issues pertaining to both types of rotations that an oblique rotation will be more suitable in the current study, as the nature of the phenomena involved would not support an assumption of no correlation among factors.

On consideration of the decision points regarding factor analysis, the analysis of the data gathered in this study was conducted using maximum likelihood extraction, and the resulting factor matrix was rotated by an oblique rotation. Using the Kaiser-Gutmann rule (extracting all factors with eigenvalues greater than one) a four-factor pattern² emerged (see Appendix E). The surface apathetic approach was clearly evident in Factor 2. Factor 1 captured three of the deep subscales, whereas Factor 3 captured three of the strategic subscales. However, Factor 4 also captured a combination of the remaining deep and strategic

² The output of factor analysis is provided in both a structure matrix and a pattern matrix. Cattell (1978, p.178) contends that the factor pattern matrix gives the most meaningful expression of the final outcome, and so the pattern matrices are the solutions described throughout this analysis.

subscales. From consideration of conceptual issues, a four-factor solution would not have been expected. Given the large body of research supporting the descriptions of three learning approaches, and the emergence of a supporting three-factor solution in prior studies using ASSIST, a three-factor solution was initially expected in the current study. That said, as has been repeatedly stressed in the study to date, the ASSIST was developed for use primarily with higher education students. While, the preliminary interviews provided evidence that students in the FAE learning environment described many aspects of deep, surface and strategic learning approaches, the context may also cause variation in the approaches of students in this context compared to those in higher education. In developing the instrument, the research team had explored the behaviour of the factors under conditions of compression and fragmentation (imposing a solution with less and more factors). Hence, given the unclear picture provided by the initial factor pattern (having used the Kaiser-Guttman rule), the researcher's conceptual understanding of the phenomena being investigated and the exploration of the instrument developers' of the appropriateness of varying number of factors, a number of compressions of the data were examined in this analysis.

Firstly, as three factors were expected conceptually, the data were compressed to three factors. While three approaches to learning are distinguishable in the three-factor pattern the picture is not as clear as might be envisaged from studies in the higher education domain. As can be seen from this factor pattern in Appendix E, Factor 2 clearly represents the surface apathetic approach, as all four subscales of that approach satisfactorily load on the factor. With regard to Factor 1, it is evident that the four subscales of the deep approach have loaded strongly on this factor. However, the 'monitoring effectiveness' subscale, which is conceptually associated with the strategic approach, has also loaded on this factor, though it also loaded more weakly and negatively on Factor 3. Factor 3 captures three of the five strategic subscales - 'time management', 'organised studying' and 'achieving', but, as already mentioned, 'monitoring effectiveness' loaded more strongly on Factor 1 and 'alertness to assessment demands' did not load on any of the factors. With the strategic scale not emerging quite as expected conceptually, and evidence from the preliminary interviews of strategic motivation combining

with deep learning activities, the data was compressed to two factors. The pattern matrix for this data reduction is shown in Table 7.5.

Table 7.5 Factor analysis - 13 subscales compressed to two factors

<i>Pattern Matrix</i>	Factor 1	Factor 2
Use of evidence	0.697	
Relating ideas	0.696	
Seeking meaning	0.692	
Monitoring effectiveness	0.680	
Interest in ideas	0.586	
Achieving	0.572	
Time management	0.478	
Alertness to assessment demands	0.461	
Organised studying	0.460	
Unrelated memorising		0.806
Fear of failure		0.736
Syllabus-boundness		0.526
Lack of purpose		0.367

Note: 1. Factor loadings of less than 0.30 have been omitted.
2. The two factors explain 49% of the variance

As can be seen from Table 7.5, the two-factor pattern that emerges is quite clear. Factor 1 embraces the deep and strategic subscales and Factor 2 captures the surface apathetic subscales. It thus appears that for the FAE students the deep and strategic subscales are actually capturing the same dimension, in that students who have high scores on the deep scales will also have high scores on the strategic subscales. This indicates that the FAE students who have an intrinsic interest in their studies and seek meaning and inter-relate the ideas in their course work, are also motivated to achieve and thus they are very organised in their approach to their study, they monitor their progress and are alert to assessment demands. From the factor pattern above it is evident that there is a clear distinction between this deep/strategic approach and a surface apathetic approach. However, does the variation in students' learning approaches as explored in the qualitative analysis support the distinction of two approaches rather than three as has been identified in higher education research?

In the qualitative analysis, evidence of the characteristics of the deep, strategic and surface apathetic approaches were identified, but no attempt was made to categorise the students, as in many instances students exhibited characteristics of all three approaches. For example, Jack expressed intrinsic interest in his study and described other activities associated with a deep approach. However, he was also very determined to achieve and was very examination focused. At the same time he expressed feelings of fear of failure and reported that this fear motivated him. What was noted in Chapter 6 was that there was a clear distinction between those students who engaged with their study for the FAE (in terms of conceptions of learning, intentions and study activities) and those who didn't. Those who engaged with their study to whatever degree (Jack, Ben, Tom, Rory and Anna) wanted to succeed at the FAE, they recognised that understanding was critical in their preparation for the examination and they worked in a very organised manner to achieve the understanding they considered was required for the FAE. Thus, it could be said that these students exhibited a deep/strategic approach. The primary characteristic of the remaining students interviewed (Mary, Lucy and Liam) was a lack of interest or apathy surrounding their study for FAE. The students were not inspired to discover more about accounting or to interact with their study and indeed they described very passive types of study activities. Also, uncertainty and confusion permeated their descriptions of their preparation for the FAE. They exhibited many of the characteristics of the surface apathetic approach and they described little of the organised study activity as outlined by the other students. The distinction made between these two groups in Chapter 6 was primarily that of interest and engagement in terms of both motivation and activity, but it would appear that this distinction is reflected in the marked differences in the two factors which have emerged from the factor analysis. Therefore, it would appear that the two-factor pattern emerging from the quantitative analysis above is one that makes sense in the light of the qualitative data. This means that, for the purposes of analysing the responses of the FAE students, the focus should be on the scores of students on two scales, thus the scores on the deep and strategic subscales should be added to yield a score for a deep/strategic scale. In terms of considering whether the scores for these two main scales should include the scores of the 'related subscales', it is clear from Table 7.5 that these four subscales ('monitoring effectiveness', 'achieving', 'interest in ideas' and 'fear of failure') load satisfactorily

on the two factors. Additionally, as was reported in Table 7.4, the internal reliability of the individual subscales was satisfactory.

As the decision has now been made to focus on a two-factor structure in the FAE environment, the internal reliability of the combined deep/strategic scale was determined. As is illustrated in Table 7.6, the alpha values of the combined deep/strategic scales are highly satisfactory. The alpha values for all the individual subscales are as shown previously in Table 7.4.

Table 7.6 Cronbach's alpha values for the two main scales in the FAE environment

	<i>Alpha values</i>
Deep/strategic Approach - <i>including related subscale/(excluding)</i>	0.89/0.83
Surface Apathetic Approach- <i>including related subscale/(excluding)</i>	0.82/0.75

In summary, the statistical validation of ASSIST for use in the FAE learning environment has shown that the internal reliability of the subscales and the main scales are satisfactory and comparable to those reported in other studies which have used the instrument. On reducing the data in a variety of ways using factor analysis, it emerges that for the FAE students a two-factor structure, comprising a deep/strategic scale and a surface apathetic scale, is the most sensible. While a three-factor structure may have been expected conceptually from research in higher education, it appears that, for the FAE students, attributes of the deep and strategic scales are combining. Thus many FAE students who want to achieve and are focused on the examinations seek meaning in their studies, interrelate the ideas to which they are exposed and evaluate the evidence of arguments and decisions. All of the deep and strategic subscales load satisfactorily on the combined deep/strategic main scale. The surface apathetic scale is clearly distinguished from this deep/strategic scale, with all four subscales of this dimension loading as expected. Thus, for the remainder of the chapter, analysis

conducted at the main scale level focuses on the two factors of a deep/strategic approach and a surface apathetic approach to learning.

7.3 Results and findings

7.3.1 *Analysis of approaches to learning mean scores*

For the purposes of validating ASSIST, subscale scores for each student had been calculated, thus the first step in the analysis of learning approaches was the calculation of the scores for the two main scales - deep/strategic and surface apathetic scales. These scores were calculated by adding the scores for each of the constituent subscales for each student. Additionally, to aid comparison between the scores on the two scales, the scores were scaled relative to the number of constituent subscales. In other words, the total achieved in adding the scores on each of the deep/strategic subscales was then divided by nine (the number of constituent subscales), whereas the total for the surface apathetic subscale was divided by four. Thus, the valid scores on either of the main scales or any of the subscales ranged from four to twenty.

The nature of the approaches to learning data was then examined to determine whether parametric or non-parametric statistical tests would be used to interrogate the data. While the range of parametric tests is more extensive than non-parametric and thus offers greater potential for data analysis, parametric tests are inappropriate if the sample size is small and/or the characteristics of the data seriously depart from the assumptions of a normal distribution. Thus, the scores on the two main scales in this study were visually examined on a bar chart and also the skewness and the kurtosis of the data were reviewed, and are shown in Table 7.7.

Table 7.7 Distribution of main scales

	Deep/strategic	Surface apathetic
Skewness	-0.078	-0.152
Kurtosis	-0.158	-0.656

While the skewness and kurtosis of the deep/strategic scale and the surface apathetic scale are slightly negative, this is not significant, indicating that the distribution of both scales approximates a normal distribution. Furthermore, Diseth (2001) indicates that skewness and kurtosis of <0.75 are appropriate for such an instrument. This distribution, in conjunction with the large sample size, confirm the suitability of using parametric statistical tests to explore the data set.

Table 7.8 Mean scores of main scales and subscales for the full sample

	<i>Mean</i>	<i>Std. Dev.</i>
Deep/Strategic Approach	13.83	1.97
<i>Seeking meaning</i>	<i>14.10</i>	<i>3.08</i>
<i>Relating ideas</i>	<i>12.77</i>	<i>2.96</i>
<i>Use of evidence</i>	<i>14.38</i>	<i>2.83</i>
<i>Interest in ideas</i>	<i>10.60</i>	<i>3.82</i>
<i>Organised studying</i>	<i>13.42</i>	<i>2.85</i>
<i>Time management</i>	<i>13.63</i>	<i>2.89</i>
<i>Alertness to assessment demands</i>	<i>15.38</i>	<i>2.97</i>
<i>Achieving</i>	<i>14.75</i>	<i>2.85</i>
<i>Monitoring effectiveness</i>	<i>15.51</i>	<i>2.66</i>
Surface Apathetic Approach	12.54	2.59
<i>Lack of purpose</i>	<i>11.54</i>	<i>3.79</i>
<i>Unrelated memorising</i>	<i>10.90</i>	<i>3.16</i>
<i>Syllabus boundness</i>	<i>14.45</i>	<i>3.25</i>
<i>Fear of failure</i>	<i>13.38</i>	<i>4.22</i>

Table 7.8 presents the mean scores for the full sample and it can be seen that the mean score on the deep/strategic scale (13.83) is higher than that on the surface apathetic scale (12.54), indicating that the FAE students tend to favour a

deep/strategic approach. A paired sample t-test³ revealed that the difference between these means (1.29) was significant at the 1% level (277 pairs).

Examining the subscales within the deep/strategic scale, it can be seen that the mean scores vary from 10.60 to 15.51 with a median of 14.10. The lowest subscale score is 'interest in ideas', with the highest two mean scores being recorded on 'monitoring effectiveness' and 'alertness to assessment demands'. Thus, it appears that the FAE students are examination-focused and monitor their study in the context of being prepared for the examination. They are organised in their study habits and actively engage and interact with their study. However, it would seem that their engagement in deep learning activities is driven more by their perception of the FAE examination requirements than intrinsic interest in the subject matter, given the relatively low score on the 'interest in ideas' subscale. With regard to the surface apathetic scale, the highest score refers to 'syllabus boundness' implying that the students do not read outside the prescribed syllabus. However, given the breadth of the FAE syllabus this is not surprising. Additionally, the relatively high score for 'fear of failure' reflects the importance attached to passing the FAE and the pressures students feel as they prepare for the examination.

As profile data regarding the sample has been gathered, the extent of variation in the mean responses of different groups can be evaluated. Gender is the first variable used to examine the mean responses further. Generally, studies which have tested for gender differences in approaches to learning have produced inconsistent evidence (Richardson and King, 1991). In a study of professional accounting students, Hassall and Joyce (1997, 1998 and 2001) reported a significantly higher score on the surface learning scale for female students compared to male students. In an Irish context, though with university students, Byrne et al. (1999) found no significant differences in the approaches to learning of male and female students. In a further study Byrne et al. (2002a), while again finding no gender differences in the approach to learning of university accounting

³Each student's deep/strategic score is compared to his/her surface apathetic score.

students, reported differences in the relationship between learning approaches and learning outcomes for male and female students.

Of the 325 students in the sample, 152 are male (46.8%), 170 are female (52.3%) and 3 students (0.9%) did not disclose their gender. The mean scores by gender are provided in Table 7.9 below, and it is evident that, while both groups favour a deep/strategic approach over a surface apathetic approach, the male students record a higher score than the females on the deep/strategic scale and a lower score on the surface apathetic scale. Independent sample t-tests reveal that the difference in scores on the deep/strategic scale between male and females was not significant. However, the difference between the two groups on the surface apathetic scale is highly significant ($p<0.01$). Evaluating the differences on the two scales within the gender groups using paired sample t-tests, it emerges that the difference between the mean deep/strategic score and the surface apathetic scale for the female students is significant ($p<0.05$) and the difference for the male students is highly significant ($p<0.01$).

Table 7.9 Mean scores on main scales by gender group

	<i>Male</i>	<i>Female</i>	<i>Differences in mean scores</i>
Deep/strategic (Note1)	13.88	13.76	0.12
Surface apathetic (Note 2)	11.98	13.03	**1.05
Differences in mean scores (Note 3)	** 1.90	* 0.73	
**Significant at the 1% level			
*Significant at the 5% level			
Note 1: Males = 133, Females = 147			
Note 2: Males = 146, Females = 161			
Note 3: Males = 131, Females = 144			
Only those students who responded to every item constituting each main scale has a score for that scale, which explains the variation in the numbers of males and females per test.			

In evaluating the results by gender, it is pleasing that both male and female students record a higher score on the deep/strategic scale than on the surface apathetic scale. The significantly higher score of the female students on the surface apathetic scale is somewhat surprising. Byrne et al. (1999 and 2002a) report no gender differences in the learning approaches of Irish university accounting students. Additionally, while in the past the accounting profession may have been male-dominated and thus placed added pressure on female recruits, today the balance of new trainees and the makeup of most accountancy firms is generally evenly split between males and females. Also, in the interviews with students reported in Chapter 6, motivations and activities associated with a surface apathetic approach, i.e. fear of failure and syllabus boundness, were described by both male and female students and thus gender differences were not anticipated in the quantitative data. In examining the differences between the male and female students across the four subscales which constitute the surface apathetic scale, the difference on the fear of failure subscale is the only one which is significant, and indeed it is highly significant. Female students have a score of 3.66 on this subscale, whereas male students record a score of 2.98. Therefore, female students feel the pressure of the FAE and fear failing this final hurdle more than their male counterparts, or at least they admit to this fear more readily than do the male students. Interestingly, the gender differences which emerged replicate the findings of Hassall and Joyce (1997, 1998 and 2001) in their study of students of a British-based professional accounting body, though that study involves students at all levels of professional examinations unlike this study which is focused on the final qualifying examination.

The second variable by which the sample was categorised was in relation to students' experience of previous ICAI examinations. As was outlined in Section 4.4.2, graduates of non-business disciplines must complete Prof 2 and Prof 3 in advance of presenting for the FAE. Business graduates who did not complete specialisms in Accounting are required to present for some or all of Prof 2 (depending on the nature of their course) and Prof 3. Graduates who specialised in Accounting, or non-Accounting graduates who completed a postgraduate conversion course, are often exempt in full from Prof 2 and so Prof 3 provides their first exposure to ICAI examinations. Graduates of a number of specialist

Accounting postgraduate programmes are exempt from all ICAI examinations prior to the FAE. Additionally, ICAI offers a route to entry for non-graduates through the IATI. However, previously the non-graduate entry route involved completion of a Prof 1 examination and a small number of students in the sample of this study had progressed via this route. The breakdown of the sample in this study and the mean scores of the various groups on the main scales are provided in Table 7.10.

Table 7.10: Mean scores on main scales based exposure to previous ICAI examinations

	<i>Sample</i>	<i>Deep/Strategic</i> <i>(Note 1)</i>	<i>Surface apathetic</i> <i>(Note 2)</i>	<i>Difference</i> <i>(Note 3)</i>
<i>Previous exams:</i>				
Prof 1, 2 and 3	(1.5%) 5			
Prof 2 and 3	(43.7%)142	13.80	12.36	**1.44
Prof 3	(28%) 91	13.94	13.07	*0.87
Exempt prior exams	(25%) 81	13.82	12.09	**1.73
No response	<u>(1.8%) 6</u>			
	(100%)325			
Note 1: Prof 2 and 3 = 121, Prof 3 = 83, Exempt = 71 Note 2: Prof 2 and 3 = 134, Prof 3 = 89, Exempt = 78 Note 3: For comparison within groups the number of pairs were as follows: Prof 2 and 3 = 118, Prof 3 = 83, Exempt = 70				

Examining the scores on the two main scales within each of the three main groups of students⁴ reveals that all three groups record higher mean scores on the deep/strategic scale than on the surface apathetic scale. Paired sample t-tests show a significant difference between the deep/strategic mean score and the surface apathetic mean score for the Prof 3 group, whereas the differences in the scores

⁴ The group consisting of students who completed Prof 1, 2 and 3 is too small for the purposes of statistical analysis.

for both of the other groups are highly significant. Comparing the three main groups of students, the Prof 3 group have the highest score on both the deep/strategic scale and the surface apathetic scale. This is unusual as it would be anticipated that students with relatively high deep/strategic scores would have relatively low scores on the surface apathetic scale. Conducting independent sample t-tests, it emerges that there are no significant differences between the scores of the three groups on the deep/strategic scale. However, the mean score of the Prof 3 group on the surface apathetic scale is significantly different from the scores of the other two groups ($p < 0.05$). The reason for the higher mean score by the Prof 3 group on the surface apathetic scale is unclear. It might have been expected that either the Prof2/3 group or the Exempt group would have the more extreme measures as they have, respectively, the most and least prior exposure to the ICAI professional examinations, whereas the Prof 3 group is the group in the middle. Perhaps a tentative explanation for the high surface apathetic score for the Prof 3 group is the nature of the Prof 3 examination. Prof 3 is perceived to be a very technical examination. It is an examination with a wide syllabus and must be completed in a closed-book environment. The students interviewed as part of this study reported that Prof 3 requires rote learning and good coverage of the syllabus. It is possible that the students who joined the ICAI at the Prof 3 level identified the requirements of Prof 3 and were successful with a surface type approach to the course and examination. Additionally, the Prof 3 group is mainly constituted by students who completed specialised accounting undergraduate programmes which are often perceived to be quite technical in nature and to generate fear of failure. Now they face their second ICAI examination, the FAE, and they carry forward some of their tried and tested study activities and habits, though at the same time they take on board the new requirements of the FAE and engage also in deep learning activities. As opposed to this, many of the Prof 2/3 group have completed more broad based Business or non-Business undergraduate degrees and perhaps have had less experience of fear of failure and more freedom in their dealings with a syllabus. Also the students for whom the FAE is their first ICAI examination have completed specialised Master's programmes. Through their Master's programmes it is possible that they have experienced more independent learning than in their undergraduate education and feel less pressured by a syllabus. Indeed, given that the Master's programmes are perceived to

encourage the development of deep understanding of all material and align their curriculum and assessment to achieve this goal it might have been expected that this group of students might have had the highest score on the deep approach. In summary, the high surface apathetic score of the Prof 3 group is unexpected, is difficult to explain and merits further thought and exploration. It will also be interesting to examine in the final section of this chapter the success of the different groups and to explore the links of the learning outcome with the learning approach.

The next variable used to classify the sample is that of the location of registration of the students. Some 63% of the sample ($n = 206$) is registered in Dublin with 37% being registered in Belfast ($n = 119$). The mean scores on the two main scales are shown for the groups in Table 7.11. Both the Dublin-registered students and the Belfast-registered students have a higher mean score on the deep/strategic scale than on the surface apathetic scale, with the difference being significant for the Belfast group ($p < 0.05$) and highly significant for the Dublin group ($p < 0.01$). Examining the differences between the two groups on the two scales, the Dublin group has a higher mean score on the deep/strategic scale, though the difference is not significant. However, the difference between the scores of both groups on the surface apathetic scale is highly significant ($p < 0.01$). These differences between the groups are interesting and there would be no expectation of their occurrence given the profile data. However, the researcher understands that there is a widely held perception among ICAI staff that the Belfast students are generally 'better' in terms of attendance at lectures, completion of assignments and indeed with regard to examination success, compared to the Dublin students and students at other centres. This study, however, indicates that the Belfast students score significantly higher on the surface apathetic scale, which is the least desired learning approach given the objectives of professional accounting education⁵. The factors influencing the students in their learning approach are varied, but it would be interesting if the compliant activities of the Belfast students which contribute to

⁵ It is important to recognise that the gender mix in both Dublin and Belfast are practically identical. Some 52.4% of the Dublin students are female compared to 52.1% of the Belfast students.

their reputation as 'better' students encourage them to engage in surface learning type activities.

Table 7.11 Mean scores by location and employer type

	<i>Deep/strategic</i>	<i>Surface apathetic</i>	<i>Difference in mean scores</i>
<i>Registration location:</i>			
Dublin (Note 1)	13.92	12.23	**1.69
Belfast (Note 2)	13.70	13.03	*0.67
<i>Difference in mean scores (Note 3)</i>	0.22	**0.80	
<i>Employer type:</i>			
'Big 4' firm (Note 4)	13.94	12.28	**1.66
Non-'Big 4' firm (Note 5)	13.55	12.80	*0.75
<i>Difference in mean scores (Note6)</i>	0.39	0.52	
* Significant at 5% level			
** Significant at 1% level			
Note 1: N = 164			
Note 2: N = 113			
Note 3: D/S - Dublin = 168, Belfast = 114; SA - Dublin = 191, Belfast = 118			
Note 4: N = 137			
Note 5: N = 119			
Note 6: DS - Big 4 = 138, Non Big 4 = 121; SA - Big 4 = 150, non Big 4 = 136			

In reviewing the sample by employer type⁶ (Table 7.11), it is clear that trainees in both 'Big 4' firms and non-'Big 4' firms favour a deep/strategic approach over a surface apathetic approach, with the difference between the two mean scores within each group being significant for the non-'Big 4' trainees and highly

⁶ 49% (n=158) of the sample work with 'Big 4' firms, 43% (n=139) with non-'Big 4' firms, 2% (n=8) with other employers and 6% (n=20) did not respond to this variable. Due to the small size of the group working with 'other employers', mean scores have not been included in the analysis.

significant for the 'Big 4' trainees. The differences in the mean scores between the two employment group on both scales are not significant. From the ICAI's perspective the similarity of the scores between the two groups training in different environments ('Big 4' v non-'Big 4') is very positive as it is hoped that the training as professionals provided in the different environments will be of the same standard and will similarly support the educational development of the trainee.

To date this section has examined the scores of the students at the full sample level and additionally has used the variables of gender, previous professional examinations, location of registration and employer type to categorise the sample and make comparisons between the categories. Many studies exploring differences in student learning examine age as a distinguishing variable. However, in this study there is little variation in students' ages: 88% of students are between the ages of 23 and 27. Students generally register as student members of the ICAI immediately on completion of higher education and there is no real history of mature students as trainee accountants. Thus, the mean scores of the sample are not analysed based on age due to the homogeneity of the age of the participants.

The next section in this chapter explores the remaining data gathered as part of ASSIST, namely, students' conceptions of learning, teaching preferences and self rating of performance.

7.3.2 Analysis of students' conceptions of learning, teaching preferences and self-rating of performance

As reported in Section 7.2.1, ASSIST not only captures students' approaches to learning but also gathers data regarding their conceptions of learning and their preferences for different types of teaching. While these aspects of the instrument are at an early stage of development, the concepts have been shown in the literature to influence students' approaches to learning (see Chapters 3 and 6) and thus the data gathered regarding these items are worthy of consideration.

The research literature on learning in higher education exhibits six categories of conceptions of learning (see Section 3.3.2). This variation in conceptions of learning as devised from higher education research was also evidenced among the FAE students interviewed as part of this study (see Chapter 6), with the students describing their personal view of learning as varying from that of knowledge acquisition to personal development. ASSIST attempts to embody these conceptions of learning in six questions to which the students respond on a five-point Likert scale. The instrument developers then conceived that the responses to the six questions could be combined to generate two overall measures of conceptions of learning and they labelled these dimensions as 'reproducing knowledge' and 'personal understanding'. Attempting to embrace the variation in students' conceptions of learning into two dimensions may be criticised as being over simplistic, but statistical tests will reveal if the combination of scores across the questions makes sense in this context. In any case, students' responses to the individual questions will be interesting and informative. The mean scores of the FAE students across the six conceptions of learning questions are shown in Table 7.12.

Table 7.12 Conceptions of learning - mean scores

	<i>Mean</i> (Note 1)
<i>Reproducing knowledge</i>	
Building up knowledge by acquiring facts and information	4.36
Making sure you remember things well	3.92
Being able to use the information you've acquired	4.52
<i>Personal understanding and development</i>	
Understanding new material for yourself	4.35
Seeing things in a different and more meaningful way	3.85
Developing as a person	3.82
Note 1: Students were asked to evaluate how close the statements were to their own view of learning. The Likert scale varied from '1= very different' to '5 = very close'.	

As is evident from Table 7.12, the mean scores for each question are relatively high. It might be hoped that students approaching qualification in a profession

would have a highly-developed view of learning as involving personal development, thus it is pleasing to see high scores on the relevant questions. However, the highest mean score of the 'personal understanding and development' triumvirate refers to being able to understand new knowledge for oneself, which is lower in the hierarchy of conceptions compared to the conceptions of seeing things differently or developing as a person. The highest mean scores of all six questions are recorded on the items regarding knowledge acquisition and application, classed under the 'reproducing knowledge' umbrella⁷. Having higher scores on the questions at the lower end of the conceptions hierarchy is not surprising as the conceptions are developmental. Thus, someone who views learning as embracing personal understanding and development is also likely to see a role for knowledge acquisition and application, thus such a person may have high scores across all questions. Similarly, a person who has not reached the level of seeing learning as personal development will have low scores on the developmental type questions, but may still have high scores on the knowledge-based views of learning. As no study has been found which reports students' responses to the conceptions of learning questions in ASSIST, no valid comparison of the FAE students' responses can be made. Similarly, no study examining qualitatively professional students' conceptions of learning has been identified. Thus, while the mean scores seem pleasing and evidence now exists that many of the FAE students view learning in a manner consistent with the higher end of the conceptions of learning hierarchy, the lack of comparable data limits the analysis that can be conducted. However, later in the chapter the relationship of the FAE students' conceptions of learning and their learning approaches will be considered.

To evaluate whether combining the scores from the individual conceptions of learning questions to derive scores for the two dimensions as envisaged by the instrument developers of 'reproducing knowledge' and 'personal understanding and development' is viable, the internal reliabilities of the two scales is determined. On calculating the alpha values of the two conceptions dimensions, it

⁷ While the memorising knowledge conception is theoretically higher than that of simply acquiring knowledge, the lower mean score recorded with the FAE students on the memorising question is not surprising given the open-book nature of the FAE.

emerges that these values do not support the calculation of overall scores for each of the two scales. The alpha value for the 'personal understanding and development' is 0.66 which may be considered acceptable, but the alpha value for the 'reproducing knowledge' scale at 0.35 is unsatisfactory. On reflection, as conceptions of learning are complex and developmental in nature, perhaps combining them and reducing them to two dimension is conceptually inappropriate, and also the richness of the variation in students' conceptions may be lost in the data reduction process.

Another section of ASSIST gathers data on students' preferences for teaching and courses. Again, the instrument developers envisaged the eight questions as grouping into two dimensions, those of 'supporting understanding' and 'transmitting information'. It was considered that courses and teaching which support understanding are aligned to a deep approach to learning, whereas those that focus on transmitting information relate to a surface approach. The mean responses of the FAE students to the eight questions are set out in Table 7.13 above.

Table 7.13 Preferences for different types of courses and teaching- mean scores

	<i>Mean</i>
<i>Supporting understanding</i>	<i>3.25</i>
Lecturers who encourage us to think for ourselves and show us how they themselves think	3.84
Exams which allow me to show that I've thought about the course material for myself	3.58
Courses where we're encouraged to read around the subject a lot for ourselves	2.64
Books which challenge you and provide explanations which go beyond the lectures	2.93
<i>Transmitting information</i>	<i>4.14</i>
Lecturers who tell us exactly what to put down in our notes	4.09
Exams or tests which need only the material provided in our lecture notes	4.06
Courses in which it's made very clear just which books we have to read	4.26
Books which give you definite facts and information which can easily be learned	4.12

It is clear that the mean scores on the transmitting information questions are higher than those associated with supporting understanding, with the scores of each of the questions in the transmitting information grouping dominating the related question associated with developing understanding. In many respects the favouring of information transmission by the FAE students is understandable given their learning context. As was highlighted in the analysis of interviews reported in Chapter 6, students are intent on passing the FAE, it is the final hurdle on the long road to qualification as a chartered accountant and their primary concern while participating in the FAE programme is examination success. Additionally, the breadth of the FAE syllabus, the perceived depth of understanding of material required and the uncertainty associated with adjusting to an open-book examination, are likely to influence students' responses favourably to questions about courses and teaching which appear to imply clarity and certainty in the process. The pressure which the students feel during the preparation period is likely to influence their responses negatively to some extent towards courses which encourage independent learning. Also, in some of the interviews conducted with FAE 2000 students, there was a sense that some students conceive accounting to be a 'black or white' discipline, where there are 'right and wrong' answers to problems. This view would be consistent with the strong responses to the clear, fact-based system implied in the transmission of information questions.

It is interesting to consider the results of these course and teaching preferences in the light of students' approaches to learning and their conceptions of learning. As reported in Section 7.3.1, the FAE students on the whole favour a deep/strategic approach to learning over a surface apathetic approach. Perhaps the preferences expressed above provide further evidence to support the suggestion that FAE students adopt a deep/strategic approach, not so much because they are intrinsically interested in their FAE studies, but because they perceive it to be what is required by the examination. Their general preference may actually be to not engage in deep learning, as they prefer courses and teaching which focus on transmitting information over those which support independent, deep approaches to learning. However, they engage in activities associated with a deep approach to learning because their motivation is examination success and they perceive the

development of understanding as being required for success. Thus the deep/strategic learning approach captures strategic motivation with deep learning activities.

With regard to combining the responses on the preferences for courses and teaching questions to give overall mean scores for 'transmitting information' compared to 'supporting understanding', Cronbach's alpha values were calculated to evaluate the internal reliabilities of both scales. The alpha values for both scales are satisfactory (transmitting information - 0.79; supporting understanding - 0.73) and so overall mean scores are calculated. The mean response (scaled for comparative purposes) for the supporting understanding scale is 3.25 whereas the mean response on the transmitting scale is 4.14. A paired sample t-test (311 pairs) indicates that the difference between the two means is highly significant ($p < 0.01$). The overall mean scores emphasise the preferences of the FAE students for fact-based courses and teaching.

To explore the preferences for different types of courses and teaching further, the analysis of the mean responses on the two scales, supporting understanding and transmitting information, was conducted on the subgroups identified in the learning approaches analysis. Table 7.14 sets out the mean scores of the various subgroups.

Within every single subgroup identified, the preference for courses and teaching which focus on transmitting information is higher than those that focus on supporting understanding. Additionally, in every subgroup the difference between the two mean scores is highly significant ($p < 0.01$). Comparisons between the subgroups yield some interesting findings. Firstly considering gender, the female students have a significantly higher score ($p < 0.01$) on the transmitting information scale and a significantly lower score ($p < 0.05$) on the supporting understanding scale. As discussed in the analysis of learning approaches in Section 7.3.1, female students recorded a significantly higher score than the male students on the surface apathetic approach to learning scale, and are more affected by a fear of failure than the male students. Their fear of failure may influence

their preference for fact-based courses and teaching over those that will encourage them to think for themselves.

Table 7.14 Preferences for courses and teaching - mean scores of subgroups

	<i>Transmitting information</i>	<i>Supporting understanding</i>	<i>Difference</i>
<i>Gender (note 1)</i>			
Male (note 2)	4.01	3.36	**0.65
Female (note 3)	4.24	3.15	**1.09
<i>Difference</i>	**0.23	*0.21	
<i>Location (note 4)</i>			
Dublin (note 5)	4.03	3.33	**0.70
Belfast (note 6)	4.32	3.12	**1.20
<i>Difference</i>	**0.29	*0.21	
<i>Employer type (note 7)</i>			
Big 4 (note 8)	4.09	3.34	**0.75
Non Big 4 (note 9)	4.13	3.12	**1.01
<i>Difference</i>	0.04	*0.22	
<i>Previous ICAI exams (note 10)</i>			
Exempt prior exams (note 11)	4.00	3.29	**0.71
Prof 2 and Prof 3 (note 12)	4.07	3.37	**0.70
Prof 3 (note 13)	4.33	3.10	**1.23
** Significant at the 1% level			
* Significant at the 5% level			
Note 1: Pairs: Males = 145, Females = 163			
Note 2: TI - n=145 SU - n= 147			
Note 3: TI - n=166 SU - n= 164			
Note 4: Pairs: Dublin = 194, Belfast = 117			
Note 5: TI - n = 197 SU - n= 195			
Note 6: TI - n =117 SU - n= 119			
Note 7: Pairs: Big 4 = 150, Non Big 4 = 135			
Note 8: TI - n = 152 SU - n= 152			
Note 9: TI - n =136 SU - n= 136			
Note 10: Pairs: Exempt = 78, Prof 2 and 3 =134, Prof 3 = 88			
Note 11: TI - n = 79 SU - n= 78			
Note 12: TI - n = 135 SU - n= 136			
Note 13: TI - n = 89 SU - n= 89			

The higher score of the Belfast group on the transmitting information scale (p<0.01) and the lower score on the preference for courses and teaching which support understanding (p< 0.05) is difficult to explain. Again, the perceived

compliant nature of the Belfast students may influence them to prefer clear, concise, fact-based courses and modes of teaching. However, it is possible that there are other differences between the Dublin and Belfast students and their learning environments which are not captured by the instrument and this analysis. It must be remembered that, while the ICAI is an all-Ireland body, Dublin is in the Republic of Ireland and Belfast is in Northern Ireland, which is part of the United Kingdom. Thus the school and university education systems experienced by these students may vary and the economic, political and social environments in which they have grown up and now live and work may differ. These differences could influence their learning preferences.

With regard to the preferences for courses and modes of teaching of the groups by employer type, there are no highly significant differences. The 'Big 4' trainees show a significantly higher preference for courses which support understanding ($p < 0.05$), and while that group has a lower score on the transmitting information scale, there is no statistical difference between the scores of the two groups. Again, as mentioned above, this is pleasing for the ICAI, as it hopes to ensure that the training offered in the different employment types will offer benefits equally to the educational development of the students.

In reviewing the scores of the groups of students with different experiences of prior ICAI examinations, the higher mean score of the Prof 3 group on the transmitting information scale and their lower mean score on the supporting understanding scale is noteworthy. On the supporting understanding scale, however, the only significant difference between groups is that between the Prof 2/3 group and the Prof 3 group ($p < 0.05$). With regard to the transmitting information scale the score of the Prof 3 group is significantly higher than the Prof 2/3 group ($p < 0.05$) and the difference between their score and the score of the group exempt from prior examinations is highly significant ($p < 0.01$). Again, as with the analysis of the learning approaches using these subgroups, the findings are confusing. If the students who are exempt all prior ICAI examinations, having completed specialised Master's programmes, had the highest score on the supporting understanding scale and the lowest score on the transmitting information scale, it would be convenient to attribute their more desirable

preferences to their experience of more independent and thought-provoking learning on their post-graduate programmes, but the scores do not emerge as cleanly as that. The students who completed Prof 2 and 3 have a higher score on the supporting understanding scale, though the difference is not significant, thus the cloudiness of this picture remains. The differences between the students with different exposures to ICAI examinations and hence different university experiences is an area for further research. Additionally, it would be interesting to explore the actual examination success of the students from the different groups.

It is interesting to examine students' self-rating of their performance to date on the FAE programme. ASSIST asks the students to rate their performance in their assessed work to date on a nine point scale, varying from "1 = rather badly" to "9 = very well". Perhaps, not surprisingly, the mean response is near the midway point of the scale at 5.52, though the range of responses varied from the minimum to the maximum. Given some of the differences in the approaches to learning of the subgroups of the sample identified earlier, comparisons of the self-ratings of the various groups was conducted. Table 7.15 sets out the means of the various subgroups and reveals some interesting differences. Firstly, the higher self-rating of males compared to that of females is highly significant ($p < 0.01$). The difference between the self-ratings of the Dublin group and the Belfast group is significant ($p < 0.05$) as is that between the 'Big 4' group compared to the non-'Big 4' group. However, there are no significant differences between the groups when examined on the basis of their experience of previous professional examinations.

The differences in the self-rating of the 'Big 4' students compared to the non-'Big 4' students may be explained by the fact that the trainees in the big firms traditionally have a longer study leave period as they take leave in lieu of overtime worked during the year. Thus, by the time of the block release when the data was gathered, the 'Big 4' students may be more satisfied by their progress and so rate their performance as higher than the non-'Big 4' students. Additionally, as has been discussed in the analysis of interviews in Chapter 6, students gain support in their studies from their peers and their colleagues who have completed FAE in previous years. Given the number of trainees generally employed in the 'Big 4' firms, the range of support and advice available to the FAE students in

those firms may be more extensive and may provide them with a greater sense of comfort regarding their own progress during the FAE programme.

Table 7.15 Analysis of self-rating by subgroups

	<i>Mean</i>
Full sample (n = 296)	5.52
Males (n = 137)	5.82
Females (n = 156)	5.24
Dublin (n = 183)	5.68
Belfast (n = 113)	5.27
'Big 4' (n=145)	5.70
Non-'Big 4' (n=129)	5.27
Exempt from previous ICAI exams (n =73)	5.70
Prof 2 and Prof 3 (n = 125)	5.39
Prof 3 (n = 88)	5.59

With regard to the difference in the self-ratings of the Dublin and Belfast students, there is a number of possible explanations. Firstly, there is anecdotal evidence that the Dublin students generally have a longer study leave period than the Belfast students and so, as outlined above, the Dublin students may be more satisfied with their progress by the time of the block release when this research data was collected. Secondly, as was mentioned in the discussion of learning approaches, there is a perception in the ICAI that the Belfast students are 'better', in terms of attendance at lectures and the submission of assignments, and ultimately examination success. Maybe through their more active participation in the programme, the Belfast students have a better understanding of FAE requirements and understand the extent of their shortcomings and the work that remains to be done. The Dublin students, having completed fewer assignments and therefore having had less feedback on their progress, might naively rate their progress higher than the Belfast students. Additionally, it has been shown above that the Belfast students have a stronger preference than the Dublin students for courses

and modes of teaching which focus on the transmission of information as opposed to the development of understanding. Thus, if the Belfast students are encountering aspects of the FAE programme (lectures, assignments, etc.) which are not fact-based but focus on the development of their own understanding, they may be feeling less confident regarding their progress and performance to date.

The difference in the mean scores of the gender groups is difficult to interpret. The higher self-ratings of the males could be associated with personality type variables of the students in the sample, with the male students being perhaps more confident and self-assured than the females. Also, as reiterated above, the female students recorded a significantly higher score than the male students on the surface apathetic approach to learning scale, and so are more affected by a fear of failure than the male students. As a consequence, they may be more apprehensive than their male peers and rate their performance to date at a lower level. Additionally, in the same way that the Belfast students may complete more assignments than the Dublin group, the female students may generally complete more than their male counterparts. The feedback from these assignments may influence the rating the females give to their progress to date. In a recent study of Irish university accounting students, Byrne et al. (2002a) report that there is no correlation between the self-rating of performance by male students and their actual performance, whereas there is a highly significant relationship between the two for female students. They conclude that female students appear to evaluate their own progress more effectively than male students, and this may contribute to the difference in the self-ratings in the current study.

7.3.3 Finding groups in the data using cluster analysis

The previous sub-sections have explored the FAE students' learning approaches, conceptions of learning, preferences for different types of teaching and courses and self-rating of performance. As part of that analysis, the full sample of students was broken into a variety of groups based on external, and previously known attributes of the students, e.g., gender, prior educational experience. At this point, reducing the data to identify groups of students that have similarities in their learning approaches and examining the conceptions of learning and other

preferences of those groups, provides another way to interrogate the data and understand the learning process more fully. Additionally, this analysis will facilitate the identification of groups with 'desirable' and 'undesirable' learning approaches, which can then be examined, to determine if students with certain attributes or experiences typically fall into certain groups. This approach may be particularly useful to identify students who might adopt poor approaches to learning (i.e. surface apathetic) for the FAE. From an altruistic educational perspective, and on the assumption that the profession truly wishes to support high quality learning which leads to high quality learning outcomes, concern regarding those adopting surface apathetic learning approaches for the FAE is important. However, from the short-term perspective of the students and even from the perspective of their training firms, concern regarding poor quality learning approaches is only likely to emerge to any significant degree if it is found that such learning approaches are more likely to be associated with FAE failure. It is clearly hoped that the FAE rewards good quality learning: indeed, from an educational perspective, the alignment of learning objectives and assessment is critical. Thus, it is important to explore the relationship between learning approaches and FAE success, but this will be done in the next section of this chapter. The remainder of this section focuses on reducing the sample of students into groups with similar learning approaches using cluster analysis and exploring the makeup of those groups in order to support the analysis conducted to date.

Everitt (1980, pp2-3) contends that the ability to classify, e.g., to sort similar things into categories, is a very primitive one, as it appears to be a precursor to the development of language itself. Individuals learn about, and use, classifications from a very early age, distinguishing between genders, animal types, and colours etc. Additionally, classification is one of the oldest scientific pursuits. Today, searching data to identify groups is an important exploratory technique in data analysis and can provide, among other things, information to assess dimensionality, to suggest hypotheses regarding relationships and to simplify the description of a large set of data⁸ (Johnson and Wichern, 1982, p.532; Everitt,

⁸ A distinction needs to be drawn between the ways in which factor analysis and cluster analysis, both of which can be classified as data reduction techniques, have been used in this study. In the first instance, factor analysis was used in the *validation* of ASSIST. Its data reduction process

1980, p.7). Various techniques of classification are utilised in a whole range of disciplines, e.g. chemistry, geography, psychology and market research (Dillon and Goldstein, 1984, p.157), with cluster analysis being one of the most popular sets of techniques.

"Cluster analysis is the art of finding groups in data" (Kaufman and Rousseeuw, 1990, p1) and establishes clusters or groups on the basis of similarities or dissimilarities of variables pertaining to the items. Ultimately, it groups items together so that those within a group are more similar to each other than they are to cases within any other group (Weiers, 1988, p.507). Traditionally, clusters were identified in a subjective way and relied on the judgment and perceptions of the researcher, who used graphical or visual methods. However, today such approaches are often unsuitable as researchers habitually face data with more than three dimensions (Johnson and Wichern, 1982, p.534).

Cluster analysis describes a whole range of techniques, which at the simplest level can be classified as hierarchical techniques and non-hierarchical (or partitioning) techniques. Hierarchical clustering approaches proceed by grouping items by either a series of successive mergers or divisions (Johnson and Wichern, 1982, p.543). One of the key features of hierarchical approaches which distinguish them from non-hierarchical techniques is that, once an item joins a cluster, it is never removed and merged with items from other initial clusters (it can only be removed to a cluster which is a subset of its own original cluster) (Dillon and Goldstein, 1984, p.168). With the various non-hierarchical techniques, the allocation of an item to a cluster is not irrevocable. These techniques focus on partitioning the data on the basis of optimizing a pre-defined criterion, and objects are reassigned between clusters if their original classifications emerge as inaccurate (Everitt, 1980, p.40; Dillon and Goldstein, 1984, p.186). In terms of deciding which type of clustering technique to use in this study, Johnson and Wichern (1982, p.555) advise that non-hierarchical techniques are typically used

involved identifying the underlying dimensions of the 13 subscales (i.e. combined *variables*) and resulted in the determination of two key dimensions of a deep/strategic and a surface apathetic approach to learning. Cluster analysis is used in the *analysis* of students' responses to ASSIST. Students' with similar learning approach scores were partitioned into a cluster.

when the objective is to group items and not variables. This reflects the objective in using cluster analysis in the current study, as the intention is to group students into clusters, rather than to cluster the range of variables. Thus, it would appear that a non-hierarchical or partitioning technique is appropriate.

There is a range of partitioning techniques available, the most popular probably being k-means clustering (Kaufman and Rousseeuw, 1990, p.112). The k-means method assigns each item to the cluster having the nearest centroid (mean) (Johnson and Wichern, 1982, p555). Using the k-mean approach the number of clusters to be formed is commonly specified in advance, though there is scope not to fix the number of clusters letting it change during the course of the analysis.

Having considered the appropriateness of clustering in terms of meeting the objectives of this part of the study and examined the range of clustering methods available, a k-mean cluster analysis of the research data was conducted. The variables by which the clusters were formed were the deep/strategic and surface apathetic scale scores. As the defining features of the clusters are more exposed the greater the number of clusters created, solutions containing between two and twelve clusters were extracted. On reviewing the cluster solutions, it seemed that the four-cluster solution was the most meaningful for the data. The mean scores on the two approaches to learning scales of the four clusters is set out in Table 7.16.

Students in Cluster 1 favour a deep/strategic approach over a surface apathetic approach, however, the difference in the mean scores on the two scales is not significant. Thus, the students in this cluster appear to be unsure of their learning approach. Students in Cluster 2 strongly favour a deep/strategic approach, with their mean score exceeding the sample mean of 13.83. Additionally, the score of the students on the surface apathetic scale is well below the sample mean of 12.54, and indeed the students in this cluster have the lowest score of all clusters on this scale. Cluster 3 students have the highest mean score of all clusters on the deep/strategic scale at 15.64, indicating they associate themselves with deep learning activities. However, this group of students also has a score on the surface apathetic scale of 13.29 which is above the sample mean. Thus these students also

ascribe to surface apathetic motives and activities during the FAE programme. The learning of the students in Cluster 4 is dominated by a surface apathetic approach. While they do have a higher score on the deep/strategic scale compared to Cluster 1, the students in Cluster 4 have the highest score by far of all the clusters on the surface apathetic scale. The mean score of Cluster 4 on the surface apathetic scale at 15.39 is well above the sample mean score of 12.54.

Table 7.16 Approaches to learning of the clusters

	<i>Cluster 1</i>	<i>Cluster 2</i>	<i>Cluster 3</i>	<i>Cluster 4</i>
<i>Numbers in cluster (Note 1)</i>	64	67	69	77
<i>Mean scores:</i>				
Deep/strategic approach	12.03	14.95	15.64	12.73
Surface apathetic approach	11.77	9.36	13.29	15.39
Differences in mean scores	0.26	**5.59	**2.35	** -2.66
** Significant at the 1% level				
Note 1: 48 students are not in any cluster, as they each have a missing value in one of the constituent elements of the two scales				

Having identified four clusters of students on the basis of the differences in their scores on the approaches to learning main scales, the make-up or membership of the clusters will be examined. If clusters are made up of students with similar attributes, this knowledge would aid the identification of groups who have desirable learning approaches but, more importantly, would identify students who might typically adopt inappropriate learning approaches. Efforts could then be made to alter the learning environment of those students in order to encourage them to engage in the more preferred type of learning. The breakdown of sample subgroups into clusters is shown in Table 7.17 and frequency and descriptive data regarding the four clusters are set out in Table 7.18.

Table 7.17 Analysis of sample into clusters

	*Total	Cluster 1	Cluster 2	Cluster 3	Cluster 4
Numbers in cluster	277	64	67	69	77
<i>Gender:</i>					
Male	131	(30%) 39	(31%) 40	(21%) 28	(18%) 24
Female	144	(17%) 25	(18%) 26	(28%) 41	(36%) 52
<i>Location</i>					
Dublin	164	(23%) 38	(27%) 45	(28%) 46	(22%) 35
Belfast	113	(23%) 26	(19%) 22	(21%) 23	(37%) 42
<i>Employer</i>					
'Big 4'	137	(25%) 34	(26%) 36	(26%) 36	(23%) 31
Non-'Big 4'	119	(24%) 29	(20%) 24	(22%) 26	(34%) 40
Other	8	(12%) 1	(63%) 5	-	(25%) 2
<i>Previous ICAI exams</i>					
Prof 1, 2 and 3	4	(25%) 1	(25%) 1	-	(50%) 2
Prof 2 and 3	118	(23%) 28	(27%) 32	(25%) 29	(25%) 29
Prof 3	83	(22%)18	(16%) 13	(30%) 25	(32%) 27
Exempt	70	(24%) 17	(30%) 21	(22%) 15	(24%) 17
*The total of some sub-groups does not add to 277 due to non- responses					

Table 7.18 Four clusters: Descriptive statistics and membership frequencies

	Cluster 1	Cluster 2	Cluster 3	Cluster 4
	Mean	Mean	Mean	Mean
Conceptions of learning:				
Building up knowledge by acquiring facts and information	4.31	4.38	4.48	4.35
Making sure you remember things well	3.84	3.63	4.01	4.27
Being able to use the information you've acquired	4.34	4.57	4.76	4.47
Understanding new material for yourself	4.19	4.51	4.53	4.26
Seeing things in a different and more meaningful way	3.54	4.16	4.03	3.66
Developing as a person	3.64	4.07	4.10	3.47
Preferences for teaching:				
Supporting understanding	3.02	3.71	3.62	2.63
Transmitting information	3.96	3.79	4.34	4.50
Self rating of performance				
	5.23	6.08	5.55	5.11
Numbers in cluster				
	64	67	69	77
Gender:*				
Male	(61%) 39	(60%) 40	(41%) 28	(31%) 24
Female	(39%) 25	(39%) 26	(59%) 41	(68%) 52
Location:*				
Dublin	(59%) 38	(67%) 45	(67%) 46	(46%) 35
Belfast	(41%) 26	(33%) 22	(33%) 23	(54%) 42
Employer:*				
'Big 4'	(53%) 34	(54%) 36	(52%) 36	(40%) 31
Non-'Big 4'	(45%) 29	(36%) 24	(38%) 26	(52%) 40
Other	(2%) 1	(8%) 5	-	(3%) 2
Previous ICAI exams:*				
Prof 1, 2 and 3	(2%) 1	(2%) 1	-	(3%) 2
Prof 2 and 3	(44%) 28	(48%) 32	(42%) 29	(38%) 29
Prof 3	(28%)18	(20%) 13	(36%) 25	(35%) 27
Exempt	(27%) 17	(31%) 21	(22%) 15	(22%) 17
*The total of the sub-groups may not add to the total in the cluster due to non- responses				

What is really interesting on reviewing the profile and membership of the clusters is the extent to which they reflect the inter-relationships between variables and subgroups which have been suggested in the analysis to date. To explore this further, the variation between the two extreme clusters, in terms of learning approach scores, will be examined.

Cluster 2 had the clearest preference for a deep/strategic approach over a surface apathetic approach of any of the clusters. On the other hand, Cluster 4 was the only cluster which preferred a surface apathetic approach to a deep/strategic approach. The differences between Clusters 2 and 4 regarding the deep/strategic scale and the surface apathetic scale scores are highly significant ($p < 0.01$). With regard to learning conceptions, significant differences between the two clusters are evident on four of the six conceptions questions, and the differences appear to be consistent with the approaches to learning preferences of the two groups. Cluster 2 has significantly higher scores than Cluster 4 on the three questions which have meaning at their core: understanding ($p < 0.01$); seeing things differently ($p < 0.05$); and developing as a person ($p < 0.01$). In addition, Cluster 2 reports a significantly lower mean score on the less-developed conception which views learning as memorising ($p < 0.01$). Conceiving learning in more developed terms, as is the case with students in Cluster 2, is consistent with adopting deep approaches to learning, similarly, less-developed learning conceptions are associated with surface learning approaches (Van Rossum and Schenk, 1984). Furthermore, Cluster 2 has a significantly higher score regarding teaching which supports understanding ($p < 0.01$) and a significantly lower score in relation to teaching which is focused on transmitting information ($p < 0.01$). Thus, Cluster 2 conveys a much more desirable learning profile in terms of learning approaches, conceptions of learning and teaching preferences, in comparison to Cluster 4, and importantly in terms of the objectives of the FAE programme and professional accounting education generally. In addition, the students in Cluster 2 appear to be much more satisfied and confident regarding their own progress as the mean self-rating of progress of 6.08 is significantly higher than the 5.11 mean score of Cluster 4 ($p < 0.01$). Given the differences in the learning of the two clusters, it is interesting to examine the profile of the clusters to determine whether there is any pattern in the students who make up the clusters.

In comparing the profile of the students in Cluster 2 and Cluster 4 (see Table 7.17), more of the males in the sample are in Cluster 2 (31%) than in Cluster 4 (18%), indeed Cluster 2 is the most popular cluster for male students. In comparison, there are more than twice the number of female students in Cluster 4 as compared to male students and Cluster 4 contains more of the female students than any other cluster (36%). Thus, from a gender perspective, the profiles of the two clusters under review, do appear to vary. The preponderance of females in Cluster 4, which favours surface apathetic learning approaches over deep/strategic approaches, is consistent with the analysis by gender reported earlier in the chapter. In considering the study location of the students, the Dublin students are reasonably evenly spread across the clusters, though more of them are in Cluster 2 (27%) than in Cluster 4 (22%). However, for the Belfast students, fewer of them are in Cluster 2 (19%) and more of them are in Cluster 4 (37%) than either of the other clusters. Given that the earlier analysis demonstrated that the Belfast students in the sample had a significantly higher score on the surface apathetic scale than the Dublin students, it is not surprising to find a larger percentage of the Belfast students in Cluster 4. While the earlier analysis found no significant differences between the learning approach scores of students training in 'Big 4' firms compared to those training elsewhere, it is evident from the cluster analysis that more of the non-'Big 4' students (34%) are represented in Cluster 4 than in any other cluster. While more of the 'Big 4' students are in Cluster 2 than in Cluster 4, such students are spread quite evenly across all four clusters. With regard to experience of prior professional examinations, what is most noticeable is that twice the number of the Prof 3 group are in Cluster 4 as opposed to Cluster 2.

The benefit of the cluster analysis conducted is that it facilitates the identification of groups of students who are more likely than others to adopt a surface apathetic approach to learning during their FAE. As the FAE is the qualification examination of the ICAI, and success marks the point at which the student becomes a professional accountant, it is important that the type of learning in which a student engages during the FAE programme is that which is suitable for a professional who will, by the requirements of his/her occupational role and the ethos and ethics of being a professional, be required to learn continually as his/her career progresses. A surface apathetic approach to learning is one which is

characterised by a lack of interest in the subject matter and a general apathy or disengagement in the learning process by the student. Such an approach to learning is not in keeping with the objectives of professional education and thus concern would exist to change the learning approach of students who might be influenced to take such an approach. Thus, an awareness of which students are more likely to adopt this learning approach is critical. The cluster analysis in this instance has identified that those who adopt a surface apathetic approach are more likely to be female than male, study in Belfast as opposed to Dublin and have commenced the ICAI examinations at the Prof 3 level. Thus consideration can be given to exploring further the learning environment of these students so that changes can be made which may influence the relevant students to adopt a more desirable approach to learning. In addition, the examination success of these students can be evaluated.

7.4 Passing and failing FAE 2001

Before concluding this chapter and progressing to further qualitatively explore the learning approaches and learning outcomes of the FAE process, an examination of the outcomes of this sample in terms of passing or failing FAE 2001 is necessary and will hopefully be illuminating.

As outlined previously, research has shown that the learning approach adopted by a student affects the quality of outcome achieved (Section 3.3.1). High quality learning outcomes are related to deep approaches to learning, whereas poor quality outcomes are associated with surface learning approaches. While the concept of a learning outcome is a complex one, which will be qualitatively explored in the FAE context in subsequent chapters, educational institutions commonly signal satisfaction with students' learning outcomes by the awarding of marks in examinations and by classifying students as passing or failing candidates. Whether examination marks appropriately reflect students' learning outcomes depends on the alignment of the assessment used to the learning objectives of the programme. As indicated previously, the objective of the FAE of the ICAI is to prepare students to become competent professional accountants. As

explored in the literature review in Chapters 2-4, professional competence in the domain of accounting requires prospective professional accountants to develop an evolved and engaged understanding of accounting. Such objectives suggest the need for professional accounting programmes to foster deep approaches to learning. Furthermore, assessment must be designed to test students' understanding and, in so doing, to reward those who adopted the desirable learning approaches. An in-depth evaluation of whether the FAE truly examines and rewards the understanding of material is beyond the scope of this study. However, the case-based nature of the papers, the open-book examination environment and students' perceptions that the understanding of material is necessary for FAE success (see sections 6.3.1.2 and 8.3.2) provides some evidence that the understanding of material and the application of knowledge are tested in the FAE papers. In this chapter the learning approaches of FAE 2001 students were measured. It emerged that, in the FAE context, the deep and strategic approaches combined and that the students favoured this deep/strategic approach over a surface apathetic approach. At this point, the natural question is whether the expected relationship between the students' approaches and outcomes occurred. In other words, were the students who exhibited the desired learning approaches more successful in passing the FAE than those who adopted poorer approaches to learning?

The FAE is made up of four papers each of which is marked out of 100. To pass the FAE at a single sitting a student must achieve a minimum of 200 marks across the four papers and no less than 40 in any individual paper. A student who does not achieve a pass in the whole part but who achieves in excess of 170 marks in aggregate, will be awarded a credit in any paper in which s/he obtains a mark of 50 and will repeat only the paper(s) failed. On repeating, a student sitting a single paper must achieve 50, whereas a modified form of compensation is in place for those re-sitting more than one paper. A student who fails and receives no credits must represent in all four papers. (ICAI, 2001b, p.12).

In 2001 a total of 942 candidates presented for the FAE. Those taking the FAE for the first time numbered 698, with the remaining students re-sitting the

examination having failed or received credits at their previous attempts. The results for the full population and the different cohorts are set out in Table 7.19.

Table 7.19 Results of FAE 2001

	<i>Total</i>	<i>Pass</i>	<i>Credit</i>	<i>Fail</i>
All attempts	942	(84%) 790	(11%) 104	(5%) 48
1st attempt	698	(87%) 607	(10%) 72	(3%) 19
2 nd or subsequent attempt	244	(75%) 183	(13%) 32	(12%) 29

Source: ICAI, 2002c, p.16

While professional accounting examinations are anecdotally associated with relatively low pass rates, it is immediately evident on reviewing Table 7.19 that the pass rate for FAE 2001 is remarkably high. Indeed, 84% of all FAE candidates passed and thus, on completion of their training contracts, are eligible to become members of the ICAI. The pass rate among those presenting for the FAE for the first time is even higher at 87%. Reviewing the FAE pass rates in previous years, it is evident that those achieved in 2001 are exceptional. Table 7.20 sets out the FAE pass rates for the previous three years. Over this period pass rates among first attempt and repeat candidates increased, but the increases in the pass rates in 2001 are the largest encountered over the period.

Table 7.20 FAE pass rates 1998-2000

	<i>2000</i>	<i>1999</i>	<i>1998</i>
All attempts	74%	70%	67%
1st attempts	77%	76%	74%
2 nd and subsequent attempts	66%	54%	44%

Sources: ICAI, 1999, 2000, 2001c

The potential reasons for the increasing pass rates are varied. It may be that the intellectual capability of the students taking the FAE is increasing year on year, or it may be that students are preparing more rigorously and/or performing better in the examinations. On the other hand, ICAI may have changed the standard of the papers or altered the marking of the papers, or indeed the changing pass rates may be a result of other unidentified factors. The Examiners' Reports, which are published by the ICAI after the results are released as a guide for future students, provide some evidence pertaining to the pass rates. With regard to each paper, the Examiner reports that, in general, the standard of students' answers in 2001 compared to the previous year had improved and each Examiner implies that the standard of the papers had remained unchanged (ICAI, 2001d).

Regardless of the reason for the increasing pass rate, the fact remains that in 2001 an overall pass rate of 84% was achieved. The determination of whether students in the sample passed or received credits was completed by cross referencing the names of students with the FAE pass list published by the ICAI in November 2001. From this analysis it was established that 84% of the sample definitely passed, 7% earned credits and 5% failed⁹. However, 4% of the sample (15 candidates) had not provided their names when they completed ASSIST and thus their examination outcome could not be determined.

As the learning outcome in this part of the study is simply pass or fail (credits or total fail), exploring statistically its relationship with the measures of learning approaches is restricted. In the first instance some frequency analysis is conducted to explore the pass rate of subgroups of the sample. Secondly, the relationship between results and learning approaches is considered by interrogating the pass rates of the four learning approach clusters identified in Section 7.3.

⁹ Students were classed as failing if their names did not appear on the pass or credit list. It is feasible that students' names did not appear if they didn't actually take the examination, but the ICAI indicated that withdrawal from the examinations by candidates who attended lectures and block release would be highly unusual.

As indicated above, the pass rate of the sample at 84% was in keeping with the overall pass rate for FAE 2001. The pass rates of the various subgroups are set out in Table 7.21.

Table 7.21 Pass rates of subgroups of the sample

		<i>Pass rate</i>
Gender:	<i>Male</i>	82.2%
	<i>Female</i>	86.5%
Location:	<i>Dublin</i>	82.5%
	<i>Belfast</i>	85.7%
Employment:	<i>Big 4</i>	88.0%
	<i>Non-Big 4</i>	87.8%
Previous professional exams:	<i>Prof 2 and Prof 3</i>	78.2%
	<i>Prof 3</i>	89.0%
	<i>Exempt</i>	88.9%

There are no significant differences between the success rates of the students when compared on the basis of gender, location or employment¹⁰. However, the pass rate among the groups with different educational backgrounds does show some variation. While the group who commenced ICAI examinations at the Prof 3 stage has a very similar pass rate when compared to that of the group who were exempt all examinations except FAE, the pass rate is significantly higher than the pass rate for students who joined the ICAI programme at the Prof 2 ($p<0.05$). The reasons for this variation are not readily identifiable, but it is hoped that further investigation using qualitative research methods may uncover some potential explanations.

Given that the performance of the students in the FAE is signalled simply by whether the students passed or not, an exploration of the relationships between

¹⁰ Eight students indicated that they are training outside the practice environment. The pass rate of this group is 75%.

learning approaches and performance cannot be conducted using correlation analysis. However, it is possible to explore the relationships by examining the pass rates of the clusters which were formed on the basis of distinctive learning approach profiles.

Table 7.22 Pass rates of the clusters

	<i>Cluster 1</i>	<i>Cluster 2</i>	<i>Cluster 3</i>	<i>Cluster 4</i>
Pass rate	84.4%	83.6%	82.6%	88.3%

As can be seen from Table 7.22, the pass rate does not vary considerably between the various clusters: the lowest pass rate at 82.6% is encountered in Cluster 3 whereas the highest at 88.3% is experienced in Cluster 4. From an educational and learning perspective, one would hope that an education system rewards those who achieve the learning objectives. Within professional accounting education if the aim is to develop professional competence, which is operationalised by developing knowledge, skills and attributes which will support lifelong learning, the expectation would be that the qualification examination would seek to reward those who demonstrate deep understanding of the subject matter. Thus, it would be anticipated that those who engage in deep/strategic approaches to learning would achieve deep understanding and would be more likely to pass the FAE¹¹. Given that the four clusters had different learning approach preferences, different outcomes in terms of FAE success might have been expected. In particular, variation between the two extreme clusters, Cluster 2 and Cluster 4 might have been anticipated. Specifically, Cluster 2, which had the strongest preference for a deep/strategic learning approach over a surface approach, might be expected to achieve the highest pass rate and Cluster 4 which preferred a surface approach, might be expected to have the poorest performance. Instead, the variation between the pass rates is not significant. However, it is noteworthy that Cluster 4, the group with the less desirable learning approach profile, has the highest pass rate.

¹¹ As already indicated in this section, an in-depth evaluation of whether the FAE tests students in a way which rewards deep/strategic learning is outside the scope of this study.

There are many potential reasons why the expected variation in the performance of the clusters which had different learning approaches did not emerge. Firstly, it is possible that the measurement of either of the variables of learning approaches or learning outcomes was not appropriate. The learning approaches of the students were measured using ASSIST and both the conceptual and statistical validation of the instrument indicated the instrument was appropriate for the FAE context. However, it is feasible that, in completing the ASSIST, students did not accurately reflect their actual learning approaches. Instead of reporting their actual learning approaches some students may have provided the responses which they perceived the researcher desired or which might be expected of students within professional education. In addition, it must be remembered that the students completed the instrument in a classroom setting, so it is feasible that some of them may have been influenced in their responses by students sitting next to them. The possibility of students not accurately reflecting their learning approaches when completing a research instrument was reported in a study by Byrne et al. (2002a) where the expected relationships between learning approaches and learning outcomes did not materialise for male students. Similarly in that study it was recognised that the issue may not lie with the measure of learning approach but could rest with the measure of learning outcome. The possibility that the measure of outcome used in this study has not adequately captured the variation in students' outcomes must be seriously considered.

In this study students' performance in the FAE is used as the measure of their learning outcome from the FAE learning process. While the seminal works exploring the relationships between learning approaches and learning outcomes were phenomenographic in nature, examination results have been commonly used as a measure of outcome in subsequent studies both within the accounting discipline and in other contexts (Entwistle et al., 1979; Watkins and Hattie, 1981; Watkins, 1982; Entwistle and Ramsden, 1983, pp176-177; Trigwell and Prosser, 1991a, 1991b; Sadler-Smith, 1996; Byrne et al., 2002a). The use of marks is highly justifiable, as examination results represent the way in which educational institutions or bodies signal successful achievement of learning objectives. In the FAE context, it has been seen that students are strategic in their motivation as they strongly desire to pass the FAE and become Chartered Accountants.

However, as FAE results only take the form of a pass/fail (credit or total fail) classification, it is unlikely that this dichotomy adequately captures the variation in the students' learning outcomes. Indeed, the very high pass rate of 84% achieved in 2001 exacerbates this problem. Thus, the available measure of FAE performance is not wholly satisfactory for the purposes of exploring the relationships between students' learning approaches and learning outcomes. It must also be recognised that the FAE performance of some students may not reflect the true learning outcomes they have achieved, as they may have had a 'bad day' when taking some of examination papers, or the form of the examinations may not have allowed them to adequately demonstrate the understanding of the subject matter which they have developed during the learning process. Nevertheless, the role of the FAE in signalling the achievement of the objectives of the FAE process cannot be underestimated.

In many respects, given the simple classification of FAE performance as pass or fail, in conjunction with the high pass rate in 2001, it is not surprising that clear relationships between approach and outcome have not been readily identifiable. Indeed, if the learning approach scores of the successful students and the unsuccessful students are compared it can be seen that there are no significant differences in the scores (see Table 7.23). Both groups have a significantly higher score on the deep/strategic scale compared to the surface scale but the differences between the groups are not significant.

Table 7.23 Mean scores on main scales for successful and unsuccessful students

	<i>Successful</i>	<i>Unsuccessful</i>	<i>Differences in mean scores</i>
Deep/strategic (Note1)	13.81	13.96	0.15
Surface apathetic (Note 2)	12.52	12.64	-0.12
Differences in mean scores (Note 3)	**1.29	*1.32	
**Significant at the 1% level			
*Significant at the 5% level			
Note 1: Successful = 238, Unsuccessful = 44			
Note 2: Successful = 263, Unsuccessful = 46			
Note 3: Successful = 235, Unsuccessful = 42			
Only those students who responded to every item constituting each main scale has a score for that scale, which explains the variation in the numbers of successful and unsuccessful students per test.			

In summary, the quantitative exploration of FAE students' learning approaches has been informative and insightful and this phase of the study has made a contribution to the literature in the validation and use of ASSIST in a new setting, namely the pre-qualification professional accounting education environment of the ICAI. Furthermore, the combining of the deep and strategic learning approaches has not been reported with other accounting students, but it reflects the narratives of the students in the preliminary interviews. The absence of clear relationships between FAE students' learning approaches and learning outcome, as measured by their success at the FAE, is not surprising given the dichotomous pass/fail classification which fails to capture the potentially wide variation in learning outcomes achieved. To develop a more in-depth and contextualised understanding of FAE students' learning, the next phase of empirical work will focus on qualitatively examining the learning approaches of a group of students who presented for the FAE in 2001, some of whom were successful and some who were not. A qualitative research approach at this stage in the study will allow enrichment of the issues raised in the preliminary interviews and in the quantitative phase of the study. Furthermore, such an approach is highly

appropriate for exploring, in a more holistic way, students' perceptions of the outcomes of the FAE process and to investigate the relationships between learning approaches and FAE success.

The analysis of the interviews which form the final phase of the empirical work of this study will be presented in the following chapters. This chapter now concludes with a summary and evaluation of the quantitative analysis conducted and presented in this study to date.

7.5 Summary

The purpose of this chapter was to measure the approaches to learning of the students who presented for FAE 2001 and to determine the dominant approach. Before using ASSIST to measure learning approaches, it was firstly validated both conceptually and empirically for use in the FAE context. The factor analysis conducted as part of the empirical validation indicated that, for FAE students, the deep and strategic learning approaches were combining. Thus, the analysis of FAE students' responses focused on two distinctive learning approaches, a deep/strategic approach and a surface apathetic approach, as opposed to three approaches, deep, strategic and surface apathetic, which had been identified in the higher education environment.

ASSIST was distributed to FAE students in Dublin and Belfast, the two largest ICAI centres, during the block release lectures held at the centres in June 2001. A total of 325 usable responses was gathered and the data was then analysed using SPSS. It emerged that, for the full sample and for all the subgroups used in the analysis, a deep/strategic approach was preferred over a surface apathetic approach. Examining the subscale scores within the deep/strategic scale for the full sample, it was evident that the strategic aspects such as alertness to assessment demands and monitoring effectiveness were very strong, whereas traditional deep motivation such as interest in ideas was scoring relatively weakly among the FAE students. However, these results, confirm much of the analysis of

the qualitative data reported in Chapter 6. FAE students are examination-focused and they want to achieve the success of qualifying as Chartered Accountants. They have identified that the FAE requires in-depth understanding of material and an ability to apply knowledge in a variety of contexts and so they adopt deep learning activities to achieve their objectives. For the full sample, the mean scores on the surface apathetic scale are relatively high. Subscale analysis reveals that the overall mean score is dominated by the students' perceptions of syllabus boundness and fear of failure. These issues are not that surprising as the FAE syllabus is extensive and few would be inclined to go beyond the boundaries of the syllabus. Additionally, the FAE students typically feel pressure in preparing for the FAE as they perceive the implications of success or failure to be significant. Furthermore, all of the FAE students have been engaged in the study of Accounting for many years and they do not want to falter at the final hurdle.

The analysis of the learning approaches by subgroups yielded some interesting findings. Firstly, female students scored significantly higher on the surface apathetic scale ($p < 0.01$) than their male peers, with fear of failure dominating their responses. Likewise, the mean score for the Belfast students on the surface apathetic scale was significantly higher ($p < 0.01$) than that of the Dublin students. When the results were considered on the basis of experience of previous ICAI examinations, the scores on the deep/strategic scale were similar for all groups, but the Prof 3 group had a significantly higher score on the surface apathetic scale. No differences between the groups identified by virtue of employer type were reported. A number of potential reasons for the variation in sub-group scores on the surface apathetic scale was considered and also the results of the additional items gathered by ASSIST were analysed.

The computation of two conceptions of learning measures as envisaged by the instrument developers was not supported by the statistical analysis in this study. Thus, students' responses to the individual conceptions of learning questions were examined. It emerged that FAE students most strongly associated learning with the acquisition and application of new knowledge but, pleasingly, the responses on the questions associated with the higher level conceptions of learning, such as seeing things differently and personal development, were above the mean score.

F AE students prefer courses and modes of teaching which focus on transmission of information rather than on supporting the development of personal understanding. The strength of this preference is stronger for female students compared to male students and Belfast students compared to Dublin students, which makes sense given the higher surface apathetic scores of these groups.

The cluster analysis conducted confirmed the relationships between the approaches to learning, conceptions of learning and the preferences for different types of courses and modes of teaching. The two 'extreme' clusters were reviewed in more depth. Cluster 2 strongly prefers a deep/strategic approach over a surface apathetic approach and contains the largest percentage of male students and a larger percentage of 'Big 4' trainees than non-'Big 4' trainees. With regard to preferences for different types of courses and modes of teaching, the students in this cluster have the highest mean score of all the clusters on the supporting understanding scale and the lowest score on the transmitting information scale. In terms of conceptions of learning, Cluster 2 has the lowest score on the conception of learning which centres on memorising and has quite a highly-developed personal sense of learning.

The other 'extreme' cluster is Cluster 4, in which the students strongly favour a surface apathetic approach to learning over a deep/strategic approach. Also, the cluster has the least developed conception of learning and has the highest preference of all clusters for courses and teaching which focus on transmission of information, and the lowest preference for those that develop understanding. This cluster contains the greatest percentage of female students in the sample and the largest percentage of Belfast students compared to the other clusters.

To complete the quantitative analysis of FAE learning approaches, a tentative exploration of the relationships between approaches and learning outcomes was conducted. The measure of learning outcome used in this phase of the study was examination results, as this is the way in which the ICAI signals that students have demonstrated the required standard of technical and professional competence necessary to begin a career as a Chartered Accountant. The overall pass rate for the population and the sample at FAE 2001 was 84%, which was

higher than in previous years. This high pass rate, coupled with the fact that results are simply classified as pass or fail (credit and total fail), meant that very little evidence of variation in students' learning outcomes was available, rendering statistical examination of the relationships between approach and outcome difficult. However, an exploration of the pass rates of the various sub-groups and learning approach clusters was conducted. It might have been expected that those adopting the desirable learning approaches would have the highest pass rates and those adopting the least developed learning approaches would have the lowest pass rate, but surprisingly there was no significant variation between the pass rates.

In conclusion, understanding the learning approaches of FAE students and the preferences of different sub-groups will aid consideration of the ways to encourage FAE students to adopt deep approaches to learning. Also, by exploring such variables as conceptions of learning and preferences for different types of courses and modes of teaching, a better understanding of the factors which influence learning approaches is achieved. Through the qualitative and quantitative aspects of this study presented to date, a clearer picture of student learning for FAE has emerged. Also, the nature of the FAE learning environment and the factors which influence students' learning have been examined, particularly through the contextualised data that emerged from the preliminary interviews with FAE 2000 students. However, the need to mine more deeply the experiences of FAE students cannot be underestimated. Further qualitative exploration will enrich the tapestry of students' learning experiences explicated through the preliminary interviews and the quantitative analysis. Furthermore, such research will facilitate the examination of the learning outcomes, and in particular will allow students' perceptions of outcomes and the effects of FAE success to be explored. Thus, the following chapters present the analysis of 30 interviews conducted with FAE 2001 students.