

An exploration of the learning approaches of prospective professional accountants in Ireland

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Received 19 October 2006; accepted 15 January 2008

Abstract

In light of the ongoing accounting education change debate, it is surprising that few prior studies have explored student learning issues within professional accounting education. This paper investigates the learning approaches of students preparing for the qualifying examination of a professional accountancy body in Ireland. The findings reveal that strategic learning approaches dominated, as students engaged in learning activities which they considered were most likely to lead to examination success. Variations between the learning approaches based on gender are also considered and the approaches of students who were ultimately successful at the examination were compared to those who failed.

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Keywords: Accounting education; Learning approaches; Learning environment; Professional accountancy body; Prospective professional accountants; Professional accounting examinations

1. Introduction

For the past 30 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 issued worldwide by professional accountancy bodies and employers have delineated the desired learning objectives of pre-qualification programmes (Solomons & Berridge, 1974; American Accounting Association (AAA), 1986; Arthur Andersen & Co., Arthur Young, Coopers, Lybrand, Deloitte Haskins & Sells, Ernst & Whinney, Peat Marwick Mitchell, Price Waterhouse, & Touche Ross, 1989; Albrecht & Sack, 2000; International Federation of Accountants (IFAC), 2003). Accounting academics have also long questioned many aspects of traditional accounting education (e.g., Zeff, 1979; Mathews, 1990; Power, 1991; Sundem & Williams, 1992; Tinker & Koutsoumandi, 1997)¹. Consequently, 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

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¹ In the post-Enron era many accounting journals are re-igniting the debate on the future of accounting education e.g. see special issues/debates of the *European Accounting Review* (Volume 14, Issue 2), *Critical Perspectives on Accounting* (Volume 15, Issue 5) and *Accounting Education: An international journal* (Volume 13, Issue 4).

range of skills (e.g., Meagher, 2001; Hassall, Joyce, Arquero-Montano, & Donoso-Anes, 2001) 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, 2003).

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, Collins, & Mc Innes, 1997; Sharma, 1997).

Despite the increasing research activity relating to accounting education within the higher education sector, there is relatively little research conducted regarding accounting education offered by the profession itself. Indeed, more widely, "there has been comparatively little written about professional education as a field of study distinct from higher education" (Taylor, 1997, p. 3). This is surprising, as the specialised education of members is a key trait of professions, as it distinguishes them from other occupations and develops the necessary knowledge², skills and values required by members to discharge their professional responsibilities competently (Greenwood, 1957; Wilensky, 1964; Jarvis, 1983; Perks, 1993). Professional education is a term used to capture both pre-qualification and continuing education of members of a profession, but this paper focuses exclusively on the former. While the pre-qualification professional education of members of some professions (e.g., medicine, nursing, etc.) may be fully discharged by higher education institutions (with periods of professional practice built into programmes), many professions have a dual system of pre-qualification education (Eraut, 1992). In Ireland, the United Kingdom (UK) and many other countries internationally, the accounting profession operates such a dual pre-qualification education system, whereby the prospective member typically completes a degree within the higher education system and then progresses to further study and training under the auspices of the relevant professional body (Mathews, 1990; Byrne & Flood, 2003). Many prospective members of the accounting profession in Ireland and the UK spend as long in pre-qualification professional education and training as they did in higher education. It should also be noted that for those who complete degrees in other disciplines, pre-qualification professional accounting programmes provide all of their education with regarding to accounting principles and practices.

The absence of research concerning professional accounting education 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 (syllabi and assessment methods, etc.) which have been implemented by professional accountancy bodies, have not been illuminated by any insights into contextual student learning issues. Given the research evidence from other learning environments regarding the influences of students' learning approaches on learning outcomes and the influence of the specific learning context (in terms of curriculum, teaching and assessment) on learning approaches,³ the consideration of similar or related issues in the professional accounting context appears to be a major oversight if the profession is serious about achieving the espoused high quality objectives of pre-qualification education.

As there is a growing body of research concerning learning experiences in the higher education domain, including many studies involving accounting students, one could question whether professional accounting education offers a distinctive student body or learning environment to merit separate examination. In other words, is there sufficient expectation that there might be variation between students' learning of accounting in higher education and pre-qualification professional education? The authors contend that there are a number of factors which provide a compelling case to explore the learning of professional accounting students as a population distinct from accounting students in higher education. Firstly, professional education differs from higher education due to the dynamic relationship with the professions (Taylor, 1997). Secondly, there are differences in the learning environments (e.g., syllabus, teaching approaches, forms of assessment) of higher education and pre-qualification professional accounting education, which are likely to impact on students' learning in those contexts (Marton & Booth, 1997). Thirdly, the general education literature acknowledges that personal factors influence learning (Biggs, 1999) and it is reasonable to anticipate that there may

² It is interesting to note that West (2003, p. 63) contends that the elevation of accounting to professional status had less to do with the cognitively based expertise of accounting knowledge and resulted more from the "social class, gender and political acuity of early accountants".

³ For an overview of this research see Marton and Booth (1997) and Prosser and Trigwell (1999).

be variation in such factors (e.g., prior educational experience, life and work experience) between students in higher education and those in professional education.

Thus, the variation in the characteristics of pre-qualification professional accounting education compared to higher education outlined above provide some justification to investigate students' learning in this context. This paper specifically examines the learning approaches of prospective professional accountants when preparing for the qualifying examination of the Institute of Chartered Accountants in Ireland (ICAI). More specifically, the study measures students' learning approaches using the Approaches and Studies Skills Inventory for Students (ASSIST), following the adaptation and validation of the instrument for use in the context of professional accounting education. The remainder of the paper is structured as follows. The next section explores the literature on learning approaches, considers some applications of this literature in the discipline of accounting and supports the generation of the research objectives of the current study. The following section outlines issues pertaining to the data collection for this study. The results are then presented and discussed and the paper concludes by considering the implications of the findings for future research.

2. Background to the study

2.1. Students' learning approaches and learning outcomes

One of the key concepts to emerge from research on students' learning in higher education is that of learning approaches (Ramsden, 1992). A learning approach describes how a student relates to a learning task. It captures both his/her intention with regard to the task and the activities in which he/she engages to complete the task. Initially, two distinctive approaches to learning were identified (Marton & Saljo, 1976a, 1976b). In the first instance, a deep approach describes an intention to seek meaning which is then operationalised by engaged, internalised learning activities. On the other-hand, a surface approach describes an intention to focus on the material itself rather than its meaning and the enactment of learning activities which focus on rote-learning without personal involvement or reflection (Marton & Booth, 1997, p. 22). Importantly, it has been demonstrated that deep approaches to learning are clearly related to high quality learning outcomes, whereas surface approaches are aligned to poor quality outcomes (Biggs, 1979; Booth, Luckett, & Maldenovic, 1999; Dahlgren, 1984; Entwistle & Entwistle, 1991; Marton & Saljo, 1976a, 1976b; Sadler-Smith, 1996; Trigwell & Prosser, 1991a, 1991b; Watkins & Hattie, 1981). 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 deep approaches to learning. 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 specific activities embraced by the student are influenced by this motivation. The features of the three learning approaches are outlined in Table 1.

It is important to clarify at this point that an approach to learning does not describe a characteristic of a student, rather it describes how he/she sets about a specific learning task; it is a dynamic concept (Ramsden, 1987). As illustrated in Fig. 1, which depicts Biggs' (1999) 3P model of student learning in context, the approach adopted by a student in a specific situation is influenced by both personal factors (e.g., his/her conception of learning, his/her previous

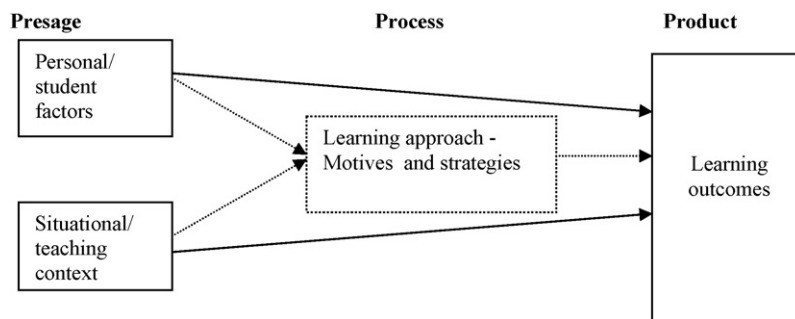


Fig. 1. Biggs' 3P model of student learning.

Table 1
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.

experiences of learning) and the learning/teaching context (e.g., curriculum, teaching and assessment) (Marton & Saljo, 1976a, 1976b; Entwistle & Ramsden, 1983; Prosser & Trigwell, 1999).

The nature and form of assessment has been found to be a particularly significant variable in influencing students' learning approaches, as students commonly adapt their approach based on their perceptions of the demands of assessment (Ramsden, 1985; Harris & Bell, 1986; Entwistle & Entwistle, 1991). If students perceive that assessment simply requires the acquisition and accurate reproduction of facts then they are likely to adopt a surface approach. In contrast, if they perceive that assessment demands the demonstration of a thorough understanding, integration and application of knowledge then they are more likely to adopt a deep approach (Tang, 1994).

Many educational studies explore gender as a key variable. Generally, studies which have tested for gender differences in approaches to learning have produced inconsistent evidence (Richardson & King, 1991). However, recent research has indicated that males and females may experience learning differently and ultimately there may be a need to develop gendered models of learning (Meyer, 1999; Lucas & Meyer, 2005).

2.2. *The accounting context and the learning approaches of accounting students*

High quality learning outcomes, in terms of knowledge skills and attributes, are expected of accounting students both within higher education and in professional education (Albrecht & Sack, 2000; IFAC, 2003). From the findings of the higher education research, it is clear that such outcomes are more likely to emerge if accounting students engage in deep approaches to learning. So what is known from prior studies regarding the favoured learning approaches of accounting students?

Studies investigating the learning approaches of accounting students within higher education have had reasonably mixed results (e.g., Bowen, Masters, & Ramsden, 1987; Gow, Kember, & Cooper, 1994; Sharma, 1997; Booth et al., 1999; Byrne, Flood, & Willis, 1999, 2002), though it must be said that the majority of the studies indicate that accounting students are more likely to adopt surface approaches rather than deep approaches to learning, or at least to have high scores on the surface scale. It is also interesting to note that in a phenomenographic exploration of students' experiences of learning accounting, Lucas (2000) reports that students commonly view learning accounting as simply the learning of a 'technique' unconnected to underlying theory.

The authors acknowledge that concepts such as learning approaches and learning outcomes, which were developed in the higher education domain, cannot be unquestioningly applied to the arena of professional education. Nonetheless,

it seems sensible to investigate the possibility of extending the use of the concepts to the pre-qualification professional accounting education, as a starting point in the exploration of student learning in that arena. Indeed, one prior study was identified in the literature which has specifically explored learning approaches in a professional accounting context. Hassall and Joyce (1997, 1998, 2001) examined the approaches of students of one of the UK professional accountancy bodies. They found that the students in the sample clearly had a higher score on the deep approach scale compared to the surface scale. Additionally, in analysing the results by gender, they noted that while female students favoured the deep approach over a surface approach, their scores on the surface scale were significantly higher than those of male students. The authors suggested that the favouring of the deep approach for the sample as a whole, reflected students adaptation to the demands the professional body's education programme, however, they did not put forward any possible reasons for the variation between gender groups concerning the surface scale.

A small number of other studies, while not examining student learning concepts explicitly, explore issues related to pre-qualification education of professional accountants and shape the conduct of this study. In a study of professional and organisational socialisation of trainee accountants, Coffey (1993, p. 319) found that the trainees recognised that passing professional examinations was “part of ‘becoming’ an accountant and maintaining credibility in the organization”. She identified that the trainees wanted to pass the examinations not only to achieve personal goals, but also because they sought to avoid failure and the consequent fear of letting the firm down. This fear of failure created significant pressure for the trainees and in a further socialisation study, Anderson-Gough, Grey, and Robson, 1998 (p. 95) reported that “accounts of the experience of the ‘pressure’ of the professional examination process upon the trainee were endemic”. They also note that “the centrality of passing professional examinations is well understood by trainees both in terms of the possibilities for advancement within the firm and the opportunities externally for exploiting the accountancy qualification” (p. 95). Power's (1991) ethnographic study of taking professional examinations with the Institute of Chartered Accountants in England and Wales (ICAEW), provides further evidence of the need to pass to aid career progression and also the fear of failure. He contends that the professional examination process encourages students to focus on how best to pass the examinations rather than on internalising the knowledge and concepts being taught. Indeed, he states that preparation courses focus on ‘technique’ and “the dominant instructional idea is not to develop understanding but to score marks in the most efficient manner possible” (p. 341).

With regard to gender issues, it is commonly acknowledged that the accounting profession was male-dominated in the past, for example, women represented less than 1% of the total membership of the Institute of Chartered Accountants in Ireland in 1973 (Barker, 1988). While today the gender balance entering many professional accountancy bodies has altered considerably (e.g., 54% of students joining ICAI in 2006 were female, (ICAI, 2007)), the culture in accounting firms is often perceived as “masculine” and chauvinist by female trainees (Anderson-Gough et al., 1998, p. 958) and women report many barriers to career progression (Barker & Monks, 1998). In a qualitative study with female Irish chartered accountants, Barker and Monks (1995) report that women feel that they are better at passing professional examinations than their male colleagues, though they perceive that men are more self-confident and more ambitious.

In summary, the prior literature shapes our expectations concerning the outcomes of the current study in a variety of ways, as it has identified, using the terminology of Biggs learning in context model as shown in Fig. 1, a number of “presage factors” that could influence the learning (both “process” and “product”) of the students. Firstly, accounting graduates have a tendency to have high scores on the surface scale when in the higher education setting and often view learning accounting as mastering a ‘technique’. It is possible that these prior experiences will heavily influence students' approaches in the professional education environment. The second key presage factor is the form of the assessment in the professional education programme. Prior literature has indicated that students adapt their learning approaches in light of their perceptions of the demands of assessment. The students in this study will take open-book, case-based examination papers and thus it might be expected that they will perceive this form of assessment to require the integration and application of knowledge and so may adopt deep approaches to learning. Thirdly, the socialisation literature presents a picture of professional accounting education as one of pressure to perform and the desire to avoid failure. Such an environment may encourage students to be strategic and to focus on adopting whatever approach they consider is most likely to lead to success. Thus, different factors will provide “presage” on students learning in this study and the identification of the dominance of the respective factors on students approaches will be very interesting and informative for educators, employers and the profession. Furthermore, from a gender perspective, it will be interesting to examine whether female students score higher on the surface approach compared to their male colleagues, as was reported in some prior studies and/or whether the perceived ‘masculine’ work environment of accounting firms, reported in the prior literature, influences female students during the professional examination process. Ultimately, the evidence

gathered in this study, hopes to provide insights into these complex interactions of student learning in the professional accounting education context. The next section describes issues related to the research method employed.

3. Research questions, data collection and validation process

3.1. Research questions

Framed by the prior literature on student learning and an understanding of the context of professional accounting education in Ireland, the specific research objectives which this study address are:

1. To measure the learning approaches of students preparing for the qualifying examination of a professional accountancy body in Ireland.
2. To determine whether there are differences in the learning approaches' scores of male and female students preparing for the qualifying examination of a professional accountancy body in Ireland.
3. To establish whether success at the qualifying examination is related to a particular approach to learning.

3.2. The instrument

The Approaches and Studies Skills Inventory for Students (ASSIST) (ASSIST, 1997) was used to gather the data for this study.⁴ The ASSIST is the latest version of the ASI, which is the most widely used questionnaire regarding learning approaches (Richardson, 1994). The instrument contains 52 items relating to students' approaches to learning, constituting 13 subscales and three main scales (deep, surface apathetic [hereafter referred to as surface] and strategic). Students respond to the items on a five-point Likert scale, which ranges from '1 = disagree' to '5 = agree'. Following the development of the instrument, the factor structure of the scales and the internal reliability of the items were found to be primarily very stable and satisfactory (Tait, Entwistle, & McCune, 1998). The ASSIST was validated for use with business and accounting students in higher education in Ireland, replicating, on the whole, the factor structure and internal reliabilities as reported in the Tait et al. study (Byrne et al., 1999). However, the ASSIST has not previously been employed with students in a professional education domain and thus needed to be validated for use in this study.

In the first instance, the appropriateness of extending the concept of learning approaches to students in this specific pre-qualification professional education context was established through the analysis of qualitative data gathered from exploratory interviews with a sample of students. This analysis confirmed that the characteristics of the three approaches to learning identified in the higher education context were present in descriptions of learning provided by the professional accounting students. Thus, a statistical validation was conducted, which is summarised below after the details of the data collection are presented.

3.3. Population, sample selection and data collection

The ICAI was chosen as the setting for this study as it is the largest and longest established professional accountancy body operating in Ireland (Byrne & Flood, 2003). The population for this investigation consisted of students presenting for a sitting of the qualifying examination, which is known as the Final Admitting Examination (FAE). As outlined in Table 2, the FAE is the final pre-qualification examination and consists of four case-based papers which are completed in an open-book environment. In total, 942 students were registered to take the examination, 698 of whom were attempting it for the first time. Studies using questionnaires to gather data on students' approaches to learning in higher education have commonly gathered that data in the classroom setting. In this case, a 9-month, part-time preparation course is offered to students registered for the FAE, with lectures being organised at a number of centres around Ireland. Following agreement by ICAI, the data was gathered from students attending lectures in Dublin and Belfast⁵ in the seventh month of the programme. More specifically, one of the researchers attended a lecture at both centres

⁴ A copy of the ASISST and permission to use it for this study was received from N. Entwistle, Centre for Research on Learning and Instruction, University of Edinburgh.

⁵ The ICAI is an all-Ireland body and so crosses the jurisdictions of the Republic of Ireland and Northern Ireland.

Table 2
The structure of ICAI pre-qualification examinations (up to 2007)

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

Notes. 1. The above structure is that which was experienced by the participants in this study. In 2007/2008, the Professional 2 examination was replaced with the CA Proficiency 1 (CAP1) examination which has five paper: Financial Accounting, Management Accounting, Finance, Law and Taxation. 2. There was previously a Professional 1 examination, which provided a non-graduate entry route. However, that examination was discontinued in the mid 1990s. Today, non-graduates must complete a course of study with the Institute of Accounting Technicians in Ireland before they are given entry to the Professional 2 examination. 3. The Professional 2 and Professional 3 examinations are colloquially known as Prof 2 and Prof 3.

and following an explanation of the study and ensuring students of the confidentiality of their replies, she distributed the questionnaires to the students present. Questionnaires were received from 325 students and this sample represents 34.5% of the total number of students registered for the examination.

3.4. Statistical validation

As the ASSIST was not previously used with students of a professional accountancy body in Ireland, it was validated statistically for the purpose of this study. Firstly, to test the internal reliability of the 13 subscales, Cronbach's alpha values were calculated, which, in the main, proved to be very satisfactory (ranged from 0.47 to 0.80) and were comparable to those reported in prior studies (e.g., Tait et al., 1998; Byrne et al., 1999). Factor analysis, using maximum likelihood extraction and an oblique rotation, was then conducted and it is clear from Table 3 that on compressing the data to three factors, the three learning approaches, which were envisaged conceptually, emerged.

Table 3
Factor analysis – 13 subscales of ASSIST compressed to three factors

Pattern matrix	Factor 1 Deep	Factor 2 Surface	Factor 3 Strategic
Relating ideas	0.852		
Use of evidence	0.830		
Seeking meaning	0.714		
Interest in ideas	0.586		
Monitoring effectiveness	0.465		0.304
Alertness to assessment demands	0.263		0.261
Unrelated memorising		0.791	
Fear of failure		0.764	
Syllabus-boundness		0.503	
Lack of purpose		0.383	
Time management			0.856
Organised studying			0.702
Achieving			0.592

Note. Factor loadings of less than 0.25 have been omitted.

Table 4
Mean scores on main scales and subscales for the full sample

	Mean	S.D.
Deep approach	12.95	2.58
Seeking meaning	14.10	3.08
Relating ideas	12.77	2.96
Use of evidence	14.38	2.83
Interest in ideas	10.60	3.82
Surface approach	12.54	2.59
Lack of purpose	11.54	3.79
Unrelated memorising	10.90	3.16
Syllabus boundness	14.45	3.25
Fear of failure	13.38	4.22
Strategic approach	14.56	2.02
Organised studying	13.42	2.85
Time management	13.63	2.89
Alertness to assessment demands	15.38	2.97
Achieving	14.75	2.85
Monitoring effectiveness	15.51	2.66

Factor 2 clearly represents the surface 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. While the ‘monitoring effectiveness’ and the ‘alertness to assessment’ subscales, which are conceptually associated with the strategic approach, have also loaded on this factor, they have also loaded, albeit a little weaker, on the expected strategic factor – Factor 3. Indeed, Factor 3 shows strong loadings for the remaining strategic scales of ‘time management’, ‘organised studying’ and ‘achieving’. The cross loading of the ‘monitoring effectiveness’ and the ‘alertness to assessment’ subscales is not wholly unexpected as difficulties with the behaviour of these have been reported in prior studies in the higher education domain (Entwistle, Tait, & McCune, 2000; Diseth, 2001; Byrne, Flood, & Willis, 2004) and are “entirely understandable in conceptual terms” (Entwistle et al., 2000, p. 37). Additionally, Entwistle and McCune (2004) contend that, due to the seamlessness of human behaviour, interconnections between domains are somewhat inevitable and should not necessarily be perceived as a weakness. Thus, based on the satisfactory statistical measures outlined above, it can be concluded that use of the ASSIST will yield valid and reliable measures for evaluating the learning approaches of students in the given context.

4. Results and discussion

4.1. Measuring learning approaches

The mean scores⁶ for the full sample on the three approaches to learning scales are presented in Table 4. It is evident that the score on the strategic scale (14.56) is higher than that on either the deep scale (12.95) or the surface scale (12.54), indicating that the students in this study tend to favour a strategic approach to learning. Paired sample *t*-tests revealed that the differences between the mean scores on the strategic scale and the other two scales were highly significant ($p < 0.01$). The difference between the deep and surface scale was not significant.

Examining the subscales within the strategic scale, it can be seen that the highest two mean scores are recorded on ‘monitoring effectiveness’ and ‘alertness to assessment demands’. Thus, these students are clearly examination-focused and monitor their study in the context of being prepared for the examination. The score on the other strategic

⁶ The subscale scores for each student were calculated by adding their responses to each of the four items in each subscale. The scores for the three main scales were then calculated by adding the scores for each of the constituent subscales. Additionally, to aid comparison between the scores on the three scales, the scores were scaled relative to the number of constituent subscales. For example, the total achieved in adding the scores on each of the deep subscales was then divided by four (the number of constituent subscales). Thus, the valid scores on the main scales or any of the subscales ranged from 4 to 20.

Table 5
Mean scores on main scales by gender group

	Male	Female	Differences in mean scores
Deep	13.11	12.76	0.35
Surface	11.98	13.03	1.05**
Strategic	14.50	14.60	0.10

**Significant at the 1% level. Within group differences: Male: Differences between scores on all scales are significant at the 1% level. Female: Differences between the deep and strategic scores and the surface and strategic scores are significant at the 1% level.

subscales indicate that they are motivated to achieve, organised in their study habits and they actively manage their time. The strategic orientation to learning of these students is not unexpected, given the pressure to pass and the perceived consequences of failing which was reported in the prior literature (Anderson-Gough et al., 1998; Coffey, 1993).

The educational literature referred to previously emphasized the role of assessment in influencing students' learning. If students are strategic in orientation and strongly examination-focused, as they are in the current study, then the form and nature of assessment are critical determinants of learning activities practiced (deep versus surface) and the quality of learning outcomes achieved. The FAE presents open-book, case-based examinations and the type of learning activities fostered by such examinations is evidenced by the extent to which students develop understanding as opposed to rote-learn in their learning activities. In the current study, the score on the 'seeking meaning' subscale within the deep approach is significantly higher ($p < 0.01$) than the 'unrelated memorising' score within the surface scale. Thus, the form of the FAE is prompting students to engage in the desirable activity of meaning-making and the scores on the 'use of evidence' and 'relating ideas' subscales, indicate that the students question the rationale for the accounting regulations, practices and techniques and they relate new knowledge to prior knowledge and experiences.

While it is a positive finding that students are scoring highly on some of the deep approach subscales, it is clear that students' engagement in deep learning activities is driven by their perception of the examination requirements rather than intrinsic interest in the subject matter, which is evidenced by the low score on the 'interest in ideas' subscale. Indeed, the score on the 'interest in ideas' subscale is the lowest score recorded on any of the subscales of the three approaches. To some extent, it could be argued that students' lack of intrinsic interest in their study is due to the pressure of the situation and perceived consequences of FAE success/failure, but it should be a concern for the profession as participation in lifelong learning, as required by International Education Standard (IES) 7 (IFAC, 2004), will demand personal interest and commitment.

While the mean score on the surface scale is significantly lower than that of the strategic scale, the scores on the surface subscales are worthy of examination and analysis. Within the surface 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 syllabus for the FAE which captures all regulations and practices across all the main sub-disciplines of accounting, this is not surprising. Additionally, the relatively high score for 'fear of failure' is aligned to the importance attached to passing the FAE and the pressures students feel during their preparation and in the workplace as reported in the literature.

4.2. Comparing the learning approach scores of male and female students

As gender data regarding the sample was gathered, the extent of variation in the mean responses of both male and female students can be evaluated in a preliminary way. It is acknowledged that other profile data, such as age and work experience, which could interact with the gender variable were not gathered and thus the conclusions that can be drawn from this analysis are limited. Nonetheless, as some prior research has reported that female trainees feel that the work environment of accounting firms is 'masculine' in culture (Anderson-Gough et al., 1998) and that female accounting students report higher scores on the surface scale (Hassall & Joyce, 1997, 1998, 2001), a preliminary investigation of the gender issue is worthwhile.

Of the 325 students in the sample, 152 are male (46.8%), 170 are female (52.3%) and three students (0.9%) did not disclose their gender. The mean scores by gender are provided in Table 5 below. It is very interesting to note the pattern of mean scores within the gender groups. The male students clearly favour a strategic approach to learning over either a deep approach or a surface approach, and using paired sample *t*-tests, it emerges that all differences between the scores

for male students are highly significant ($p < 0.01$). While the female students similarly record the highest score on the strategic approach, unlike their male counterparts, their second highest score is on the surface scale. The differences between the score of the female students on the strategic scale and on both the surface and deep scales are highly significant ($p < 0.01$) but there is no significant difference between the surface and deep mean scores. On examining the differences between the gender groups using independent sample t -tests, while there is variation between the order of their preferences for the different approaches, the only significant difference between the scores of the male and female students is on the surface scale, with the female students recording a significantly higher score ($p < 0.01$).

In evaluating the results by gender, the significantly higher score of the female students on the surface scale, compared to the male students, contrasts with the results of Byrne et al. (1999, 2002) which report no gender differences in the learning approaches of Irish university accounting students, but replicates the results of Hassall and Joyce (1997, 1998, 2001). In examining the differences between the male and female students across the four subscales which constitute the surface scale, the difference on the ‘fear of failure’ subscale is the only one which is significant, and indeed it is highly significant ($p < 0.01$). Therefore, female students feel the pressure of the final examination and fear failing this hurdle more than their male counterparts, or at least they admit to this fear more readily than do the male students. The enhanced fear of failure of female students appears consistent with prior research that reports that trainees perceive the workplace of accounting firms to be “masculine” (Anderson-Gough et al., 1998). Thus, they may perceive that the consequences of failure will be more significant for themselves than their male colleagues and may increase the barriers to the career progression that many females already perceive (Barker & Monks, 1998).

4.3. Exploring the relationships between approaches and examination success

Accountancy bodies are interested in developing the competence of prospective members and building the foundations for lifelong learning and so would be expected to encourage students to adopt deep as opposed to surface approaches to learning. However, most students in this study appear to be short-term, achieving oriented and are principally focused on passing the FAE and adopt whichever approach they perceive to be aligned to examination success. Thus, it is appropriate to examine the relationship between the various approaches of the students in this study with FAE success.

Students who complete FAE successfully are simply informed that they have passed, they are not provided with the marks they achieved in the various papers. Students who fail are provided with information of the marks they achieved, but only if they request such information, it is not supplied as a matter of course. For the purposes of this study, the outcome of the students in the sample is classed as ‘Pass’ or ‘Fail’ and the relationship between learning approach scores and outcome is assessed by comparing the mean learning approach scores of the passing and failing groups of students.

Of the students in the sample (325 in total), 272 (83.7%) passed the FAE, 38 (11.7%) failed and the outcome for 15 (4.6%) students could not be established. The data concerning examination success was gathered from the ‘FAE Pass list’ which provides the names of successful students and is published on the ICAI website after every sitting (students who fail, but who only have to repeat certain papers in the FAE are also listed as achieving credits – this is the most common form of ‘fail’ as opposed to a ‘complete fail’).⁷ Students had provided their names when completing the ASSIST and so a matching of approaches and examination success was possible. Interestingly, 82.2% of males in the sample passed and 86.5% of females passed which supports the perception of female Irish chartered accountants reported in the Barker and Monks (1995) study that women are better at passing professional examinations. The high pass rate of the sample is consistent with the pass rate of the population (84%) at this sitting of the FAE. Table 6 exhibits the mean scores of the passing students and the failing students on the three main approaches to learning scales. Independent sample t -tests indicates that the differences between the scores of the two groups are not statistically significant.

Within professional accounting education, if the objective is to foster professional competence and support lifelong learning, the expectation would be that qualifying examinations would seek to reward those who demonstrate deep understanding of the subject matter. While an evaluation of the appropriateness of the FAE as a test of understanding

⁷ The student for whom pass/fail could not be determined did not appear on the pass list. They definitely did not pass, but it is possible that they did not present due to illness or other circumstances rather than being ‘complete fails’.

Table 6
Mean scores on main scales by outcome group

	Students who passed	Students who failed	Differences in mean scores
Deep	12.90	13.20	0.30
Surface	12.52	12.64	0.12
Strategic	14.57	14.51	0.06

is beyond the scope of this study, the case-based, open book nature of FAE generates a degree of expectation that students who pass are more likely to have engaged in deep learning activities than those who failed. However, the expected relationships between approaches and outcomes were not found in this study. More specifically, there were no significant differences between the passing and failing students on the desired deep approach.

There are a variety of potential reasons for the failure to identify the expected relationships between approach and examination outcome. 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 possible 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 possible 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. (2002) 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, which in this case is examination success.

Examination results have commonly been used as a measure of learning outcome in studies both within the accounting discipline and in other contexts (Entwistle, Hanley, & Hounsell, 1979; Watkins & Hattie, 1981; Watkins, 1982; Entwistle & Ramsden, 1983; Trigwell & Prosser, 1991a, 1991b; Sadler-Smith, 1996; Byrne et al., 2002). Their use is justifiable, as they 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 classification, it is unlikely that this dichotomy adequately captures the variation in the students' performance. Further, the lack of variation in the outcome measure means it is unlikely that relationships with learning approaches and outcome can be established. Indeed, the very high pass rate of 84% achieved at the sitting in question exacerbates this problem. Furthermore, from the perspective of ICAI and educators, the available measure of FAE performance is also not wholly satisfactory for the purposes of exploring the relationships between students' learning approaches and learning outcomes, as students may achieve many learning outcomes which cannot be adequately reflected in a written examination. Indeed, it is important to recognise that examinations can only test an individual's capability to be competent. Competence itself can only be demonstrated in the work-place as it relates to the ability to conduct work-based tasks to an acceptable standard (IFAC, 2003). Nevertheless, the role of the FAE pass/fail result in signalling the achievement of the objectives of the FAE process, and its significance to students, cannot be underestimated.

5. Implications

ICAI is currently revising the FAE programme within a competency framework and is grappling with adapting its education system to the changing demands placed on members. Beaver (1992) strongly argues that understanding the effect of the current education system on the learning of prospective members is an essential step before revising or re-designing the system. Ramsden (1985, p. 65) goes further and contends that changing education programmes and courses without knowledge of the context and the meaning of learning to students is "worse than useless". This paper has measured the learning approaches of students when preparing for FAE as currently constituted and thus provides useful insights to educators and others involved in the FAE process.

As already reported, the students preparing for the FAE are examination-focused, but due to the nature of the examination they engage in deep learning activities such as seeking meaning, integrating knowledge and questioning and challenging concepts and practices. The positive influence of the form of the FAE is pleasing for the ICAI, but the dominance of strategic learning motives as opposed to internal, intrinsic motivation will be of concern if it genuinely wishes pre-qualification education to provide a platform for lifelong learning. Lifelong learning to maintain professional competence requires members to commit themselves to ongoing education and training. While this process may be declared mandatory, ICAI like other professional accountancy bodies in the UK and elsewhere, only check the compliance of a small sample of members each year and thus without an intrinsic interest in learning, there may be no external motivation for members to engage in continuing education. Thus, if the real objective of the FAE is, as ICAI espouse in compliance with IFAC's education standards, to test the competence of prospective members and to build the foundations for lifelong learning, then there is an urgent need to identify and, more importantly, address why students motives are dominated by the desire to simply pass as opposed to wanting to understand and learn for more intrinsic reasons.

In addition to developing the competence of prospective members, it can be argued that the education and qualification process of professions also fulfill other purposes such as social control and the preservation of self-regulation (Taylor, 1997). In terms of social control, the qualifying process of many professions has been associated with limiting access to the profession. Commonly, qualifying examinations are perceived to be about jumping a hurdle and proving one's right to enter the elite of the professional association, as Hanlon (1994, p. 114) states in the context of ICAI, "institute exams are seen as an obstacle to be overcome rather than as a means of enlightenment". It is possible that, in the context of Ireland's high performing economy and the resultant insatiable demand for accountants, ICAI are content if students simply satisfy the entry standard and thus swell the numbers of the body and is less concerned with the types of learning fostered and the lifelong learning agenda. In reviewing the FAE, ICAI need to clearly examine and analyse the role of the qualification examination process and to ensure that a divergence between the rhetoric and reality of its motives does not emerge. If the quantity as opposed to the quality of new members became a dominant (perhaps, tacit) feature of the process, the long-held prestige position of the body and its current self-regulatory status could be threatened.

6. Summary and conclusions

This paper has explored the learning approaches of students within pre-qualification professional accounting education by using the student learning framework from the higher education arena. It emerged that, for the full sample, a strategic approach was preferred over either a deep or surface approach. Examining the subscale scores within the strategic scale, it was evident that 'alertness to assessment demands' and 'monitoring effectiveness', were very strong factors for the students in this study, as they are very focused on the examination and they want to achieve the success of qualifying as professional accountants. While it is disappointing that a deep approach is not the favoured approach, it is clear from the high scores on some of the deep subscales, such as 'seeking meaning' and 'use of evidence' that FAE students engage in many deep learning activities. However, they do not score highly on the deep motivation scale of 'interest in ideas', reflecting that students' learning activities for FAE are driven by their desire to pass the examination rather than intrinsic interest in their studies. For the full sample, the overall mean score on the surface scale is dominated by the students' perceptions of 'syllabus boundness' and 'fear of failure'. The dominance of these issues is not that surprising, as the examination syllabus is extensive and few would be inclined to go beyond its boundaries. Additionally, the students typically feel pressure in preparing for the qualifying examination as they perceive the implications of success or failure to be significant. Furthermore, all of these 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 gender groups indicated that both groups favour the strategic approach. One noteworthy difference between the groups is the significantly higher score on the surface scale ($p < 0.01$) of the female students compared to their male peers, with 'fear of failure' dominating their responses. When the learning approach scores of the students who ultimately passed FAE and those who failed were compared, no statistically different results emerged.

The limitations of this study must be acknowledged. Firstly, the participants in the study were all students within a single professional accountancy body in Ireland, who were preparing for one sitting of a qualifying examination. There would be considerable merit in extending this research both over time within the setting studied and to learning

contexts of other professional accountancy bodies. A further limitation concerns the research method, which used a quantitative measure of learning approaches and the dichotomous classification of pass/fail to capture examination success. Gathering rich descriptions of students' experiences of learning for the FAE and their perceptions of the learning outcomes using qualitative methods, would be immensely valuable. There is also considerable scope for future research to explore further the factors which influence learning within pre-qualification professional accounting education and to examine the linkages between qualification-focused learning and learning in the workplace.

In summary, the contributions of this study are varied. Firstly, by exploring students' learning in the professional accounting context, it researches a topic which has long been neglected by both accounting and educational researchers. Thus, its findings enrich both the accounting education and professional education literatures. Secondly, the paper provides a foundation for the development of a holistic research agenda in this domain. Finally, the findings of this study provide meaningful, understandable empirical evidence which can be utilised by ICAI as it plans to reform the FAE. The findings may also have resonance with other professional accountancy bodies in Ireland and elsewhere which share many characteristics with ICAI. Ultimately, this research has the potential to make a contribution to the development of professional accounting education in Ireland.

Acknowledgements

The assistance of the Institute of Chartered Accountants in Ireland in facilitating this study is gratefully acknowledged. In addition, the first named author wishes to acknowledge the support of the Irish Research Council for the Humanities and Social Sciences for the research study on which this paper is based. The authors are also grateful to the two anonymous reviewers.

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