International Journal of Teaching and Learning in Higher Education 2009, Volume 20, Number 2, 155-167
http://www.isetl.org/ijtlhe/ ISSN 1812-9129

An Inter-Institutional Exploration of the Learning Approaches of Students Studying Accounting

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This paper provides a comparative analysis of the learning approaches of students taking their first course in accounting at a United States or an Irish university. The data for this study was gathered from 204 students in the U.S. and 309 in Ireland, using the Approaches and Study Skills Inventory for Students (ASSIST, 1997) which measures learning approaches on three dimensions: deep, strategic, and surface. The analysis reveals that while both samples favor a strategic approach over the other approaches, the U.S. students have a significantly higher score on the deep and strategic scales compared to the Irish students. Differences between the samples at the subscale level - such as students' intrinsic interest, time management, and fear of failure - are also reported. Finally, the study contextualizes the findings by analyzing variations in the learning environment of the two universities.

While the student learning research agenda within accounting has been gaining momentum in many countries (e.g., Australia and United Kingdom), it is an area of research that has been relatively neglected by researchers in the U.S. (Apostolou, Watson, Hassell, & Webber 2001). This is somewhat surprising given the concerns expressed by the many reports reviewing accounting education in the U.S. (e.g., Albrecht & Sack, 2000; American Accounting Association [AAA], 1986; Arthur Andersen & Co., 1989) and the resultant calls for student learning research (e.g., Stout & Rebele, 1996; Williams, Tiller, Herring, & Scheiner, 1988). While accounting educators can learn a considerable amount concerning student learning from the general education literature, it is increasingly acknowledged that the nature, form, and context of a discipline shapes teaching and learning activities (Lucas, 2001; Lucas & Mladenovic, 2004; Meyer & Eley, 1999; Neumann, 2001). In addition, the need for multi-institutional studies and the replication of studies across boundaries has been stressed by those committed to the improvement of accounting education (Apostolou et al., 2001; Rebele, Stout, & Hassell, 1991; Stout & Rebele, 1996; Williams et al., 1988).

In response to the call to conduct student learning research within the discipline of accounting in the U.S., together with the identified need to instigate institutional and international comparative research, this study measures the approaches to learning of students studying accounting at a U.S. or Irish university. There are a variety of reasons for selecting the two universities in which this study was carried out. Firstly, both universities have close links, including staff exchanges and the delivery of joint programs. The authors teach at one of the universities and have spent time at the other. Secondly, in both universities, students have the opportunity to major in accounting or to take accounting courses as part of a wider business degree. Additionally, it was considered that known differences in the learning environments of the two universities would provide an interesting context for the study, as it offered the opportunity to conduct an exploratory examination of the impact of learning environment variables on students' learning approaches. The discipline of accounting is a suitable context in which to carry out an international comparison given the similarities that exist in the accounting systems of the U.S. and Ireland. Both countries hold a shareholder view of accounting, operate a common law system, and have a strong accounting profession (Alexander, Britton, & Jorissen, 2003, pp.24-25). Additionally, the accounting courses offered at both institutions are similar in focus and content.

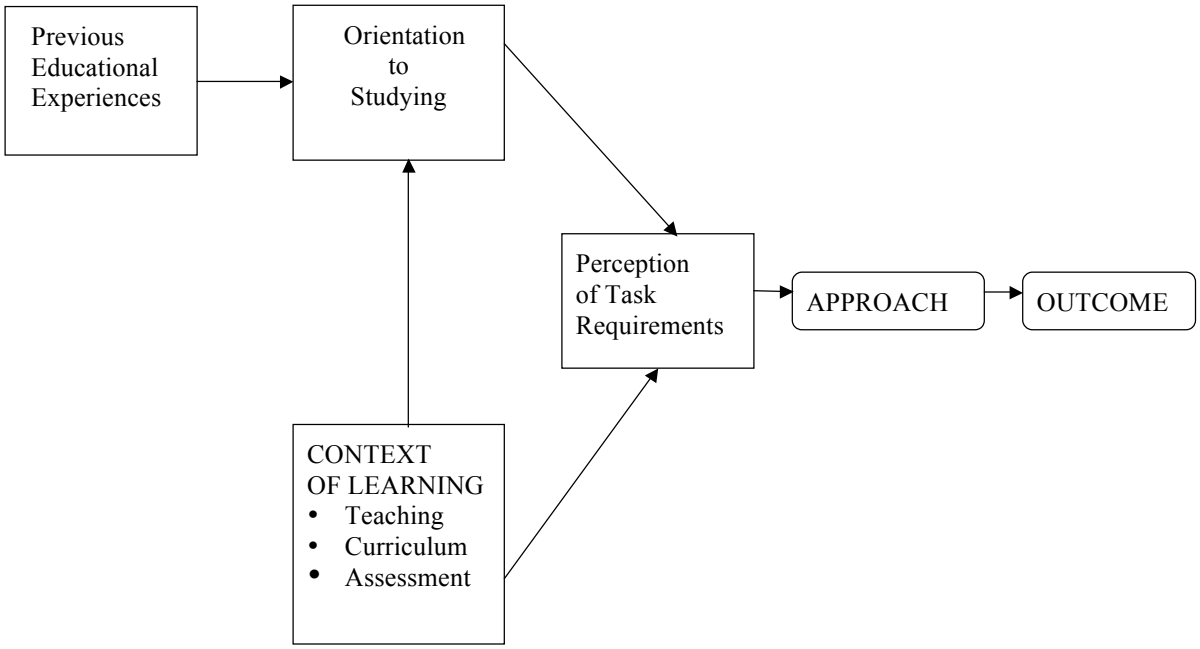
The remainder of the paper is organized as follows. The first section describes the approaches to learning paradigm that provides the framework for this study. It includes a discussion on the research instrument used and examines prior research investigating accounting students' learning approaches. The second section describes the process of data collection and the testing of data reliability. The findings are then presented and discussed and the paper concludes by considering the implications of the findings and the limitations of the study.

Approaches to Learning Framework

The approaches to learning paradigm is one of the most widely used frameworks for understanding how students go about learning in higher education (Ramburuth & Mladenovic, 2004; Tight, 2003) and it is specifically concerned with discovering why some students learn better than others (Marton & Booth, 1997, p.16). It provides the basis for several seminal texts that seek to develop an understanding of learning

Figure 1

Student Learning in Context



Note. Source: Ramsden (2003, p. 82)

in higher education from the perspective of students (e.g., Biggs, 2003; Marton & Booth, 1997; Prosser & Trigwell, 1999; Ramsden; 2003; Richardson, 2000). Research into students' learning approaches began in the 1970s at the University of Gothenburg in Sweden. This initial work used a qualitative, interview-based method, known as phenomenography, to investigate how students approached the task of reading an academic article and to assess their level of understanding of the content (Marton, 1975; Marton & Saljo, 1976). This research identified two distinct approaches to learning which were clearly associated with differences in the levels of understanding achieved. Students demonstrating a high level of understanding typically adopted what became known as a deep approach to learning, while students with a low level of understanding used what was described as a surface approach. In a later study, Ramsden (1979) identified a third approach to learning which he called a strategic approach. These three distinct approaches to learning have been confirmed by other studies in a range of disciplines and in a number of different countries, for example, Duff, (1997), Hounsell (1984), Morgan, Taylor, and Gibbs (1982), and Ramsden (1979, 1984) in the U.K.; Byrne, Flood, and Willis (1999) in Ireland; Watkins (1983) in Australia; and Van Rossum and Schenk (1984) in the Netherlands.

A deep approach to learning is characterized by a personal commitment to learning and an interest in the subject. Students adopting this approach set out with the intention of understanding the material, they interact critically with the arguments put forward, relate them to their prior knowledge and experience, and evaluate the extent to which conclusions are justified by the evidence presented (Biggs, 2003; Prosser & Trigwell, 1999; Ramsden, 2003) . Consequently, deep learning is more likely to result in better retention, transfer, integration, and application of knowledge and lead to higher quality learning outcomes (Byrne et al., 1999; Ramsden, 2003; Watkins & Hattie, 1981). In contrast, a surface approach is characterized by a lack of personal engagement in the learning process. As such, students focus on rote-learning the material in an unrelated manner and they are constrained by the specific task. This approach leads to the misunderstanding of important concepts and poor quality learning outcomes (Booth, Luckett & Maldenovic, 1999; Ramsden, 2003; Watkins & Hattie, 1981). Students who adopt a strategic approach are primarily focused on achieving the highest possible grades. Their interest in content is driven by assessment demands and they use whatever learning strategy will maximize their chances of academic success (Entwistle & Ramsden, 1983; Watkins, 2000). These students have a competitive and vocational motivation and have been described as cue

seekers, in that they pursue hints regarding the content of assessment from their teachers (Duff, 2004).

Ramsden (2003) contends that the approach to learning is one of the most influential concepts to have emerged from research into teaching and learning in higher education. Indeed, Marton and Saljo's (1976) original research into students' approaches to learning is one of the most widely citied studies in educational psychology (Walberg & Haertel, 1992). The importance of this concept is clearly depicted in the model of student learning shown in Figure 1. This model demonstrates that the quality of student learning outcomes is influenced by students' approaches to learning. Learning approaches are affected by students' perceptions of the requirements of the learning task which, in turn, are influenced by both their perceptions of the learning situation (teaching, curriculum, and assessment) and personal factors, such as general orientations to studying and prior educational experiences. Students' learning approaches are not intrinsic characteristics of students, but rather they are dynamic and are likely to change depending on how students' perceive the learning task (Lucas & Mladenovic, 2004; Ramsden, 1987). Ultimately, students' approaches to learning are highly sensitive to the context in which the learning occurs, which affords educators the opportunity to improve the quality of student learning (Prosser & Trigwell, 1999).

Measuring Learning Approaches - The ASSIST

While the first wave of research concerning students' approaches to learning was phenomenographic in orientation and involved interviewing students (Marton, 1975; Marton & Saljo, 1976; Svensson, 1977), subsequent researchers developed inventories for use with large samples. The Approaches to Study Inventory (ASI) devised by Entwistle and his colleagues in the U.K. is probably the most widely used instrument on student learning in higher education (see chapters 6 & 7 of Richardson [2000] for a comprehensive review of the development of the ASI). The composition of the ASI was influenced by the findings from other studies exploring student learning in higher education (e.g., Biggs, 1976, 1979; Hudson, 1968; Marton & Saljo, 1976; Parlett, 1970; Pask, 1976). Over the years, a number of revisions were made to the original instrument; however, it was felt that these amendments somewhat sacrificed its conceptual integrity and also affected its validity and reliability (Richardson, 2000; Tait, Entwistle, & McCune, 1998). Thus, in the late 1990s, following extensive trialing, it was substantially revised and was titled the Approaches and Study Skills Inventory for Students (ASSIST; Tait et al., 1998). The validity and reliability of this latest version of the ASI has been confirmed by other studies in different countries and within different disciplines (Byrne et al., 1999; Byrne, Flood, & Willis, 2004; Diseth, 2001; Entwistle, Tait, & McCune, 2000; Kerber, 2003; Reid, Duvall, & Evans, 2005).

The ASSIST measures students' approaches to learning on three main scales: deep, strategic, and surface. It contains 52 statements and respondents indicate their agreement with each statement using a five-point Likert scale where 1 = disagree and 5 = agree. The statements are combined into 13 subscales of four statements each, which are then further grouped into the three main scales, as outlined in Table 1.

Measuring the Approaches to Learning of Students Studying Accounting

Outside the U.S., a number of studies have measured the approaches to learning of students in accounting courses. Bowen, Masters, and Ramsden (1987) found that first-year accounting students in Australia adopted a surface approach to learning. In a later Australian study using the ASI, Sharma (1997) found that second-year accounting students' were unsure of their approach to learning, were highly syllabus-bound, and had a fear of failure. More recently at two Australian universities, Booth et al. (1999) used the Study Process Questionnaire (SPQ), a similar inventory to the ASI more commonly used in Australia and Hong Kong, to explore the relationship of accounting students' learning approaches with their learning outcomes. They found that students favored a surface over a deep approach. They also reported a significant negative relationship between the surface approach and academic performance, but no relationship for the deep approach. Chan, Leung, Gow, and Hu (1989), using the SPQ, found that Hong Kong students had a tendency to rote learn and to focus on the bare fundamentals. In a later Hong Kong study, Gow, Kember, and Cooper (1994) reported that a deep approach to learning was more dominant in the first year of higher education than in later years.

In the U.K., Duff (1999) used the ASI to investigate the effects of differences in entry qualifications, gender, and age on students' approaches to learning. He reported that age was positively related to a preference for a deep approach among students and that females were more likely to adopt a surface approach than males. In a further study seeking to understand academic performance among accounting and economics students, he identified two clusters of students which he labeled effective and ineffective learners. The effective learners had high scores on deep and low scores on surface, while ineffective learners displayed the opposite pattern (Duff, 2004).

Table 1
ASSIST – Approaches to Learning Subscales and Characteristic Elements

Main Scales and Subscales	Meaning
Deep Approach	
Seeking meaning	Intention to understand
Relating ideas	Relating to other parts of the course
Use of evidence	Relating evidence to conclusions
Related Motive	
Interest in ideas	Interest in learning for learning's sake
Strategic Approach	
Organized studying	Able to work regularly and effectively
Time management	Organize time and distribute effort to greatest effect
Alertness to assessment	Being alert to cues regarding the assessment
Related Motives	
Achieving	Competitive and confident
Monitoring effectiveness	Checking progress to ensure achievement of aims
Surface Approach	
Lack of purpose	Lack of direction
Unrelated memorizing	Not understanding material and relying on memory
Syllabus-boundness	Relying on lecturers to define learning tasks
Related Motive	
Fear of failure	Pessimism and anxiety about academic outcomes

Davidson (2002), in a Canadian study, found that the students' scores as calculated from their responses to the SPQ were higher on the surface scale than their scores on the deep scale. He also considered the association between students' learning approaches and their performance in the module. The only significant association identified was between the use of a deep approach and students' performance in complex examination questions. Using the ASSIST, Byrne et al. (1999) reported that first-year students in Ireland showed no strong preference for any particular approach. In a later study, undertaken with students who were majoring in accounting, significant positive relationships between the deep and strategic approaches and performance were found (Byrne, Flood, & Willis, 2002). Further, the study revealed a highly significant negative correlation between the surface approach and performance.

In a recent study of students taking introductory accounting courses at two U.S. universities, relationships between students' learning approaches and performance were also reported (Elias, 2005). More specifically, the deep approach was found to be significantly positively correlated with expected course grade and with overall GPA, whereas the surface approach showed a significant negative correlation with these variables. This study used a modified version of an instrument developed by Holschuh (2000), which was originally designed for use with biology students. However, no information on the validity or the reliability of the instrument for use with accounting students was provided.

On the whole, these prior studies indicate that students studying accounting are likely to favor a surface approach or to show no strong preference for any particular approach. In light of the high quality learning outcomes desired by higher education and the accounting profession (Duff, 2003; International Federation of Accountants [IFAC], 2003), the absence of a preference for a deep approach is particularly worrying. Such desired outcomes are predicated on developing students' understanding, so that they have the foundations for life-long learning (IFAC, 2003). Understanding is not about juggling formulae or memorizing textbook knowledge, rather it encapsulates the development of a personalized sense of meaning of the core principles and practices of the discipline (Ramsden, 2003). Thus, there is an obvious need to extend this stream of research and to identify factors that foster particular approaches. Moreover, it is clear that inter-institutional comparative studies will aid this research agenda, as they will offer an opportunity to identify how differences in the learning environments impact on student learning. Hence, the objective of this study is to measure and compare the learning approaches of students studying accounting at a U.S. or an Irish university and to consider the influence of learning environment variables on these approaches.

Data Collection and Tests of Reliability

The first course in accounting was selected for this study, as it is important in developing students' understanding and interest in accounting regardless of their future study and career intentions. In the U.S., it has also been identified as the course which is in need of most attention (AECC, 1992; Baldwin & Ingram, 1991; Chen, Jones, & McIntyre, 2005; Geiger

Ogilby, 2000; Saudagaran, 1996; Turner, Lesseig, & Fulmer, 2006).

The data were collected using the ASSIST which the students completed anonymously during a lecture in the final weeks of their course. The students were assured that their answers would only be used for the purposes of this research. The U.S. data were gathered at a private east coast university that has a student population of approximately 16,000 full-time and 7,000 part-time students. The Irish data were collected from students attending a publicly funded university with a student population of approximately 6,500 full-time and 2,000 part-time students. For ease of description, the students studying at the U.S. university are hereafter referred to as U.S. students. Similarly, the students at the Irish university are referred to as Irish students. It is acknowledged that these descriptions may not appropriately describe the nationality of all participants**.** Details of the population and sample at the U.S. and Irish university are provided in Table 2, where it can be seen that the response rate achieved was 89% and 75% respectively. With such high response rates among both samples, there is no reason to suspect non-response bias. The U.S. respondents had been required to take a general first year prior to commencing their business courses, while all the Irish students were in their first year; nevertheless, the age profiles of both samples are similar.

To derive the mean scores for the three approaches to learning, the scores for the 13 subscales of the ASSIST were computed by summing the individual students' responses to the four statements within each subscale. Then, the scores for the main scales were calculated by combining the scores of the relevant subscales. As there are four subscales in the deep and surface scales and five subscales in the strategic scale, each scale was divided by the number of constituent subscales to standardize the scores, thereby facilitating comparison between the three approaches. This results in a maximum score for each scale of 20 and a minimum of 4.

When using a standard instrument for data collection, it is reasonable to rely on the validity information of prior studies which used similar samples, though it is recommended that evidence of the internal reliability of the data of each study is provided (Duff, 2001). The ASSIST was previously validated for use with students in the U.S. and Ireland with a sample that was similar in make-up to that used in the current study (Byrne et al., 2004). Using factor analysis, the validation study confirmed the existence of the three expected learning approaches. Furthermore, it revealed comparable factor patterns for both the U.S. and Irish cohorts and hence the instrument is suitable for use in the current study. An analysis of the data in the present study reveals that the Cronbach alpha values for the main scales for the U.S. sample range from 0.80 to 0.87, while the values for the Irish sample range from 0.82 to 0.86, indicating high internal reliability. The alpha values for the subscales range from 0.50 to 0.75 for the U.S. sample and from 0.53 to 0.72 for the Irish sample. These values are acceptable for scales of this length and type (Entwistle et al., 2000) and are similar to values in other reported studies that used the ASSIST (Byrne et al., 1999; Diseth 2001; Entwistle et al., 2000; Tait et al., 1998).

To explore the differences in the scores on the three main scales, a univariate analysis of variance using the Duncan post hoc test was conducted for both the U.S. and Irish data. Mann-Whitney U tests were conducted to examine the differences between the scores of the two cohorts of students. The results are presented in the next section of the paper.

Results

The mean scores of the main scales for both the U.S. and Irish students are shown in Table 3. A univariate analysis of variance test showed significant differences in the preferred approaches of the U.S. ($F = 25.897$, $p < 0.01$) and the Irish ($F = 7.214$, $p < 0.01$) students. For the U.S. students, the highest score is on the strategic scale with the lowest score on the surface scale. A Duncan post hoc test showed that there are significant differences between their score on the strategic scale compared to their scores on both the deep scale and the surface scale. Furthermore, the difference between the deep and surface scores is also significant. A Duncan post hoc test for the Irish students revealed that the score for the strategic scale is significantly higher than the scores on other two scales. No significant difference between the deep and surface scores were found for the Irish cohort.

As an objective of this study is to compare the learning approaches of both groups of students, Mann-Whitney U tests were carried out to identify any significant differences in their mean scores. As seen in Table 3, the U.S. students have significantly higher scores on the strategic and deep scales compared to the Irish students; however, there is no significant difference between their scores on the surface scale. To develop an understanding of these similarities and differences between the approaches to learning of the two groups of students, the scores of the subscales within each of the main scales were examined and are presented in Table 4.

A review of the subscales within the deep approach revealed that both samples display a similar intention to understand material. However, the U.S. students exhibit a higher intrinsic interest in learning and show an enhanced willingness to integrate ideas and to relate evidence to conclusions. Regarding the strategic approach, there is a significant difference between the

Table 2
Specific Statistics Regarding the Sample

	U.S. University	Irish University
Sample	230	411
Completed questionnaires	204	309
Response rate	89%	75%
Average age of respondents	19.5 years	19 years
Male to female ratio	55 : 45	45 : 55

Table 3
Mean Scores of Main Scales

	U.S.	Irish	Difference in mean scores
Deep	13.65	12.57	1.08 **
Strategic	14.28	13.34	.94 **
Surface	12.53	12.78	-.25

Note: ** p<.01

Table 4
Mean Scores of Subscales

	U.S.	Irish	Difference in subscale mean scores
Deep			
Seeking meaning	13.73	13.40	.34
Relating ideas	13.77	12.26	1.51 **
Use of evidence	14.39	13.70	.69 *
Related motive			
Interest in ideas	12.84	10.97	1.87 **
Strategic			
Organized study	13.84	11.53	2.30 **
Time management	13.64	11.92	1.73 **
Alertness to assessment demands	14.10	14.67	-.57 *
Related motives			
Achieving	14.96	13.88	1.07 **
Monitoring effectiveness	14.82	14.84	-.02
Surface			
Lack of purpose	10.99	10.08	.90 **
Unrelated memorizing	11.57	12.33	-.77 *
Syllabus boundness	14.71	14.93	-.23
Related motive			
Fear of failure	12.95	13.83	-.88 *

Note. ** p < .01. * p < .05

two samples on four of the five subscales. The U.S. students are more organized in their study, manage their time better and are more committed to performing well, while the Irish students are more alert to assessment demands. There is no significant difference in the scores for monitoring effectiveness between the samples. In the case of the surface scale, while the U.S. group indicates a higher degree of uncertainty regarding the purpose of their studies, the Irish group is more likely to rote-learn and have a greater fear of failure. Interestingly, both groups report similar high scores for syllabus-boundness.

Discussion

At the outset, it is worth noting that the pattern of scores of both groups of students on the three main scales is similar: both the U.S. and Irish students favor a strategic approach to learning over either a deep approach or a surface approach. It is comforting to educators in both settings that the surface approach, which ultimately results in poor quality learning outcomes, is not the favored approach of their respective students. However, it is disappointing to find that neither educational context leads to students favoring the preferred deep approach to learning.

As was outlined in the discussion of Ramsden's model of learning (Figure 1), students' learning approaches are influenced by a wide range of factors that can be broadly described as either personal or situational. Many of these influencing variables - for example, academic ability, prior learning experiences, or cultural context - are intrinsic to the individual student or the environment and cannot be changed by accounting educators. Consequently, in this study, the exploration of similarities and differences of the learning of the two

groups of students concentrates on factors in the learning environment which are controllable by accounting educators or their institutions. This does not mean that intrinsic factors do not influence learning approaches, but such factors are not the focus of the current study. Indeed, it is not feasible within a single paper to explore all potential variables which may influence students' approaches to learning when addressing a learning task. As already indicated, the two cohorts of students in this study are both pursuing their first course in accounting and the content of the courses is similar: introducing students to the basic principles and practices of accounting. However, there are clear differences between the two universities regarding the delivery and assessment of the relevant courses.

The Irish students attend large group lectures (up to 200 students) where the material is presented by the course instructor. By virtue of the class size, the communication during lectures is typically one-way (i.e., from instructor to students). Thus, there is little scope for meaningful interaction and discussion during lectures. To facilitate communication and interaction, all students taking the course are assigned to a tutorial session (approximately 25 students), which meets weekly to address some of the material presented in lectures. The objective of these sessions is to stimulate discussion. However, the feedback received from the tutors who deliver these tutorials is that, more often than not, the sessions focus on the practical aspects of topics and the students remain relatively passive. Furthermore, the tutors are postgraduate students who are not trained in, or particularly comfortable with, engaged learning techniques. Thus, the students in the Irish university experience a teacher-centered classroom environment which is mainly focused on the transmission of information with very little student engagement. Prior research has shown that this type of learning environment is less conducive to fostering a deep approach to learning (Campbell, Smith, Boulton-Lewis, Brownlee, Burnett, Carrington, et. al., 2001; Trigwell & Prosser, 2004; Trigwell, Prosser, & Waterhouse, 1999). In contrast to the Irish situation, the students in the U.S. university are taught in small classes (no more than 40 students per class) throughout their accounting course. While on sabbatical in the U.S. university, the authors observed the interaction in many of these classes and confirmed with the instructors that what they observed was the norm in all their first-year accounting classes. In the classroom environment of the U.S. university, the focus is clearly on developing students' understanding of the course content through lively engagement. The instructors actively challenge students as well as encourage them to engage in the learning process and to develop a personal interest in their studies. Also, unlike the Irish students, the U.S. students appear to have a close rapport with their instructor and the intimacy of the smaller physical space makes the students more visible and promotes greater participation. This teaching approach of supportive learning is a likely contributor to the higher scores reported by the U.S. students on the deep subscales of relating ideas, use of evidence and interest in ideas. Indeed, Campbell et al. (2001) found that a deep approach to learning is facilitated by a supportive classroom environment that encourages high levels of participation. Similarly, Trigwell, Prosser, Ramsden, & Martin (1998) reported that when teachers adopted more student-focused approaches to teaching, their students engaged in deep learning. In such an environment, students are 'trapped' into engaging with appropriate learning activities (Biggs, 2001).

A further marked difference between the learning context experienced by the U.S. and Irish students relates to the structure of assessment. One of the most robust findings of higher education research is that assessment is a key driver of student learning (Biggs, 1996; Boud, 1990; Crooks, 1988; Elton & Laurillard, 1979; Jones, 1996). The assessment of the accounting course in the U.S. is made up of a series of in-class tests and short assignments. In contrast, the Irish students are assessed by means of a single assignment and a formal terminal examination, which usually represents approximately 80% of the overall mark of the course. It appears that the ongoing assessment experienced by the U.S. students helps develop their time management and organizational skills. Furthermore, it is feasible that receiving grades during class-time motivates the students to achieve good results and to do well in the eyes of their peers. Interestingly, in a recent study, Mattern (2005) contended that competitiveness within U.S. college classrooms may impact on students' goal orientations and motivation. Prior studies within medical education (Becker, Geer, Hughes, & Strauss, 1961) and accounting education (Power, 1991) reported that frequent assessment, where results are made known to the full class, motivates students to develop tactical ways of learning that facilitate assessment success. On the other hand, the Irish students are less organized than their U.S. counterparts and are less focused on time management and are less achieving oriented. It is highly likely that the absence of regular assessment contributes to the lower scores of the Irish students on these dimensions of the strategic scale. As the main assessment for the Irish students is a terminal examination, they are more alert to examination cues, but they find less need to organize their study activities or to manage their time effectively on an ongoing basis. This is consistent with the findings of Byrne and Flood (2005) who qualitatively explored the learning experiences of first year accounting students in the same university as the current study. They reported that students spent far less time studying throughout the academic year than what was expected by the instructors and that they did not plan their study activities. Rather, students' study behavior, in

terms of time commitment and material covered was heavily influenced by the onset of examinations. In the current study, it is possible that as the students are privately informed of their examination results during the vacation period, there is less overt competition among the students, and this may lead to lower levels of an achieving orientation. The dominance of the terminal examination in the Irish system may also help explain why, within the surface scale, the Irish students report a significantly higher fear of failure and a greater likelihood to rote-learn.

Many of the described features of the learning environment in the U.S. university appear to have a positive and desirable affect on the learning approaches of students, yet there are a number of dissonant effects that are interesting to note. Firstly, despite the student-centered classroom environment experienced by the U.S. students, there is no significant difference between their score on the deep subscale that captures their intentions to seek understanding in their studies compared to that of the Irish students. Indeed, it could be argued that the Irish students' intention to seek meaning is probably more personally motivated than the U.S. students whose learning activities are more directed by their instructors. Ultimately, this independent aspect of the Irish students' learning is aligned to the lifelong learning ethos of higher education. The second dissonant feature of the results is that there is no difference between the groups regarding their ability to monitor their own progress within the strategic scale. Again, given the extent to which the U.S. students receive feedback, it might be expected that they would be better able to judge their progress compared to the Irish students. However, in many instances, the U.S. students are not provided with any meaningful commentary on their performance. It should be noted that prior studies have indicated that the provision of an unembellished grade or feedback that is vague and difficult to interpret is of limited value to learning (Higgins, Hartley, & Skelton, 2002; Yorke, 2001). Alternatively or additionally, the similarities in the scores on this dimension may be due to the Irish students' alertness to assessment demands and their skill in judging what is needed for them to perform satisfactorily. Thus, this suggests that the development of students' self monitoring skills may be independent of any formal feedback. This ability to assess one's own performance is undoubtedly a very useful lifelong learning skill and is particularly valuable for those students entering the accounting profession where they will have an ethical responsibility to monitor and maintain their professional competence.

A further point of interest from the results is that, within the surface approach, the Irish students report significantly lower levels of lack of purpose in their study. This may be attributable to their greater independence in learning, but it is more likely to be due to the fact that a substantial percentage of the Irish students (57%) have already decided to major in accounting, while only 9% of the U.S. students declared their intention to major in accounting. It is also notable that both cohorts of students report very high scores regarding syllabus-boundness, indicating that they read little beyond what is assigned by their instructors. These high scores in both contexts may indicate a lack of curiosity by the students, but it may also indicate that the long-held criticism of accounting education regarding overloaded, technically-oriented syllabi (Bandy, 1994; Power, 1991; Tinker, 1985; Zeff, 1979) is a feature of the courses in both universities.

Implications

Despite the aforementioned differences in the educational contexts in the U.S. and Irish universities, both groups of students favor a strategic approach to learning. However, the analysis shows that while both groups are anxious to do well, neither group has a strong intrinsic interest in learning accounting, as evidenced by the relatively low scores on the interest in ideas subscale. If educators are to achieve the learning objectives espoused by higher education and professional bodies, they need to create a learning environment which stimulates deep learning. Thus, they must ensure that there is constructive alignment of the curriculum, teaching, and assessment (Biggs, 2003). Within this constructive approach, the objectives of the curriculum and the levels of understanding which students are expected to achieve must be explicitly stated. It is essential that the teaching methods employed support the attainment of these objectives and that the assessment techniques test how successfully students achieve them. It is important that students are given enough autonomy to allow them to develop as independent learners but not so much freedom that they feel lost, frightened, or disillusioned. In a constructive supported academic setting, students will be purposively motivated to engage in learning for understanding and, hopefully, through this process they will gain personal satisfaction and enjoyment, which will further cultivate their interest in learning. Through such good teaching practices, educators can engage students in ways that foster deep approaches to learning (Ramsden, 2003).

As many of the students in this study indicated a low level of interest in learning accounting, there is a need to take steps that will give them a better understanding of why they are studying the subject. Fransson (1977) showed that intrinsic motivation was related to the adoption of a deep approach, while students' failure to perceive the relevance of the material being studied was associated with surface approaches. Thus, educators need to stress the benefits of courses by identifying the particular knowledge and skills being developed and by highlighting how these will be useful to students' future

careers. If instructors are to stimulate students' intrinsic motivation, they must focus on what interests their students and design their material appropriately (Marton & Saljo, 1997). The high levels of syllabus-boundness reported in this study are not that surprising, given that the first course in accounting typically emphasizes mastering defined accounting techniques. However, this focus can create a very negative image of accounting, which in turn may dissuade students from majoring in the subject. Thus, there is an onus on accounting instructors to include topics in the curriculum that will stimulate students to read more widely and will hopefully instill a greater curiosity about the subject. Ramsden (2003) emphasized that independence and freedom in learning lead to high quality learning outcomes.

Limitations

In interpreting the above findings, it is important to be aware of the limitations of the study. Firstly, the ASSIST measures the broad learning approaches of a group of students, but it fails to fully capture the complexity of learning and studying at the individual level. Thus, to explore the individual richness of student learning, combining qualitative and quantitative research has much to offer educators. Additionally, qualitative research would be extremely useful in assessing the strength of the inferences made in this paper. Secondly, while it is acknowledged that an evaluation of the nature of the assessments/examinations may be useful in interpreting students' approaches to learning within a course, it was not possible to do this in the current study. Thirdly, as with so much quantitative research, a larger sample would increase the generalizability of the findings. Additionally, gathering data from more than two universities would also be useful in capturing greater variation in students' approaches to learning and in identifying the contextual factors contributing to this variation. Finally, it must be recognized that interpretation of the differences found in this study may be potentially confounded by naturally occurring intrinsic variations in the two groups of students, such as intellectual ability and cultural background. There would be considerable merit in exploring the impact of intrinsic variables on student learning in future comparative studies. However, despite these limitations, the findings of this study provide U.S. and Irish accounting educators with an enhanced understanding of student learning. Furthermore, while the study was conducted within the accounting discipline, many of the emerging issues are likely to occur in other disciplines and thus the findings are of interest to the broader academic community.

Conclusions

This study used comparative analysis to explore students' approaches to learning within the discipline of accounting. Within the student learning paradigm and using the ASSIST, data were gathered from students taking their first course in accounting at a U.S. or an Irish university. The analysis revealed that both cohorts of students favor a strategic approach to learning over a deep or surface approach. This pattern was evident despite the existence of some significant differences in the learning environment of the two relevant universities. The similarities and differences in the learning approaches of the U.S. and Irish students were examined by analyzing the various dimensions of the three main scales.

This paper contributes to the student learning literature by measuring approaches to learning in accounting, in a setting which to date has been largely neglected, namely the U.S. Furthermore, by using a comparative approach, this study enables educators to gain an appreciation of the impact of course delivery, class size, and assessment on students' learning approaches. Finally, the paper outlines opportunities for future research.

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