



Exploring the conceptions of learning of accounting students

Marann Byrne & Barbara Flood

To cite this article: Marann Byrne & Barbara Flood (2004) Exploring the conceptions of learning of accounting students, *Accounting Education*, 13:sup1, 25-37, DOI: [10.1080/0963928042000310779](https://doi.org/10.1080/0963928042000310779)

To link to this article: <http://dx.doi.org/10.1080/0963928042000310779>



Published online: 11 Oct 2011.



Submit your article to this journal [↗](#)



Article views: 594



View related articles [↗](#)



Citing articles: 9 View citing articles [↗](#)

Exploring the conceptions of learning of accounting students

MARANN BYRNE and BARBARA FLOOD*

Dublin City University, Ireland

Received: July 2003

Revised: September 2003

Accepted: October 2003

Abstract

This study examines the conceptions of learning of undergraduate and postgraduate accounting students at an Irish university. Students' written descriptions of what learning means to them are explored and evaluated relative to the six categories of description established by Saljo (1979) and Marton *et al.* (1993). The study provides evidence of the variation of accounting students' conceptions of learning from the simplest conception of learning involving knowledge acquisition to the most complex perspective of learning as embodying personal development. However, reproductive conceptions are more commonly expressed than those which centre on understanding. The implications of these findings for accounting students and accounting educators are considered and the need for further research and the design of intervention strategies is explicated.

Keywords: conceptions of learning, reproductive versus constructive views of learning, the relationship of conceptions of learning and learning approaches, developing accounting education

Introduction

Accounting programmes need to produce graduates who are active, independent learners, with the knowledge, skills and competencies necessary to perform effectively throughout their careers. To achieve these outcomes, accounting education must move away from procedural learning towards a more conceptual form which encourages deep approaches to learning (Beattie *et al.*, 1997). When students engage in deep learning they strive for meaning and understanding which, in turn, leads to knowledge being stored in structures that facilitates application in other contexts (Svensson, 1977). Moreover, the development of higher cognitive skills is dependent on adopting a deep approach to learning and the creation of appropriate knowledge structures (Booth *et al.*, 1999; Davidson, 2002). On the other hand, procedural learning and surface approaches, with their strong emphasis on rote memorization, result in knowledge being contained in structures which cannot readily be applied in new settings (Svensson, 1977; Saljo, 1987; Davidson, 2002). Since deep learning is eminently desirable, accounting educators must gain a better understanding of the factors which stimulate this kind of learning. Such an understanding will help them to 'unlock the door to better teaching and course design'

* Address for correspondence: Barbara Flood, DCU Business School, Dublin City University, Dublin 9, Ireland.
E-mail: barbara.flood@dcu.ie

and thereby develop the required knowledge, skills and competencies among their students (Marton and Ramsden, 1988, p. 272).

Since the 1970s, there has been a growing body of research which has explored the process of learning in an effort to discover why some students learn better than others (Marton and Booth, 1997, p. 16). This research has shown that a student's conception of learning is an important variable, as it influences his/her approach to learning which, in turn, affects the quality of the learning outcome (Van Rossum and Schenk, 1984; Prosser and Millar, 1989; Trigwell and Prosser, 1991, 1996; Dart, 1998). In fact, Gibbs (1995, p. 23) contends that the connection between conceptions of learning and approaches to learning is so strong that 'it is possible to predict the quality of the learning outcomes directly from students' conceptions of learning'. Students with less well developed conceptions of learning use surface approaches and consequently achieve only a superficial level of understanding, whereas students holding sophisticated conceptions of learning adopt deep approaches resulting in their gaining a thorough understanding of the material. This evidence, coupled with the desire to enhance the quality of learning of accounting students, has led to a call for research that explores their conceptions of learning (Beattie *et al.*, 1997; Sharma, 1997). Discipline specific research is also warranted given the influence of the educational context on the definition of learning. Indeed, Saljo (1979, p. 106) points out that

... learning does not exist as a general phenomenon. To learn is to act within man-made institutions and to adapt to the particular definitions of learning that are valid in the educational environment in which one finds oneself.

This study explores the conceptions of learning of undergraduate and postgraduate accounting students in an Irish university. In so doing, it offers accounting educators valuable insights for creating an educational environment which promotes the attainment of high quality learning outcomes. The paper begins by examining prior research on conceptions of learning. Details concerning the research method adopted, in terms of the data collection and analysis, are then delineated. The research findings are presented and discussed and the paper concludes by considering the implications of the results of the study for accounting educators.

Conceptions of learning

Research on conceptions of learning was initiated by a need to understand how individuals experience learning (Pillay and Boulton-Lewis, 2000). A conception of learning captures the way in which a person views learning, that is, what learning means to him/her. Each conception encompasses a *what* (the object of learning) and *how* (the way of going about learning) component with both having dialectically intertwined referential and structural aspects. The referential aspect captures the global meaning of the phenomenon, while the structural aspect specifies the way in which the phenomenon and its component parts, are delimited and related to each other (Marton *et al.*, 1993). A complete conceptualization of a conception contains both the *what* and *how* aspects of learning. However, students' descriptions seldom capture both dimensions, instead they express fragments of a conception. Thus, it is the researchers' objective 'to determine precisely just what the fragments are fragments of' (Marton *et al.*, 1993, p. 285).

Dahlgren and Marton (1978) initially identified two distinct conceptions of learning. The first views learning as something that happens to a person, it conceives learning as a passive activity involving the transmission of unrelated 'bits of knowledge'. The second conception encompasses an active view of learning, which involves a person changing his/her way of seeing

the world. Extending this research, Saljo (1979) determined five categories of description to capture the qualitative variation in the ways in which students describe learning. In a longitudinal study, involving distance education students, Marton *et al.* (1993) identified a sixth conception in which learning is conceived as personal transformation. Other researchers have corroborated the appropriateness of these categories of description in different educational settings (Van Rossum and Schenk, 1984; Van Rossum *et al.*, 1985; Martin and Ramsden, 1987; Vermunt and Van Rijswijk, 1988; Sharma, 1997; Flood and Wilson, 2002). Table 1 lists the six conceptions and an explanation of each is also provided.

Conception A – learning as the increase of knowledge

A principal feature of this conception is its vagueness. Also, the nature of learning is taken for granted and is something which is external to the learner (Saljo, 1979). There is a strong quantitative flavour to this conception, as students view learning as consisting predominantly of the acquisition of knowledge in the form of discrete pieces of information. There is very little recognition of a need to relate elements of the knowledge acquired (Pillay and Boulton-Lewis, 2000).

Conception B – learning as memorizing

This conception views learning as the acquisition and memorization of knowledge with the intention of reproducing it for assessment purposes. It incorporates learning by repetition and, while it is still quantitative and impersonal in nature, it is distinguished from the previous conception in that the acquisition of knowledge has gained a functional aspect (Van Rossum *et al.*, 1985).

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

The predominant feature of this conception is the emphasis placed on applying knowledge acquired. The application of knowledge encompasses retrieving and adapting what has been learnt and using it in a wide variety of circumstances. Unlike Conception B, application is not confined to reproduction for assessment purposes.

Table 1. Conceptions of learning

Learning as . . .

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

Source: Van Rossum and Schenk (1984) and Marton *et al.* (1993)

Conception D – learning as the abstraction of meaning

Learners holding this conception take a more holistic view of learning. They conceive learning as centring on the abstraction of meaning or understanding. Furthermore, they internalize learning and view it as a personal experience. Students actively engage in the learning process and they see the importance of integrating newly-acquired knowledge with their prior learning and personal experiences (Marton and Booth, 1997, p. 37). However, learning in this case is limited to a study situation (Marton *et al.*, 1993).

Conception E – learning as an interpretative process aimed at the understanding of reality

This conception extends the previous one, in that abstracting meaning helps students to interpret the world around them and it changes their perspectives (Marton *et al.*, 1993). In addition, this conception embraces an emotional aspect and the learning is located in the real world (Van Rossum *et al.*, 1985). Students expressing this conception see learning as an individualistic, self-determined process (Van Rossum *et al.*, 1985).

Conception F – learning as changing as a person

This conception adds an existential aspect to learning (Marton *et al.*, 1993). By developing new insights into phenomena and seeing the world differently, the learner changes as a person. Learning is not bound by time or content, it is a voyage of personal discovery.

The six conceptions of learning can be seen as a hierarchy, with each conception encompassing all the conceptions below it. The first three conceptions primarily reflect a reproductive view of learning, whereas Conceptions D–F share a constructive view of learning (Van Rossum *et al.*, 1985; Marton *et al.*, 1993). Chalmers and Fuller (1996, p. 6) contend that Conceptions A–C convey a quantitative perspective to learning, whereas Conceptions D–F embody a more qualitative, integrative perspective. Furthermore, students expressing a reproductive view fail to personalize learning, rather they regard it as functional and external to themselves. In contrast, students with a constructivist view conceive learning as personal. They engage with learning tasks and situations and they are more reflective of what learning means to them. Research has shown that conceptions of learning are not stable characteristics of students, rather they tend to change over time and with different learning experiences (Van Rossum *et al.*, 1985). Richardson (2000, pp. 49–50), in a review of research on conceptions of learning, notes that there is fairly good evidence that students' conceptions develop as they proceed through their studies.

Several studies have explored the relationships between students' conceptions of learning and other important determinants of learning outcomes. Van Rossum and Schenk (1984) reported that students who viewed learning as centring on meaning were more likely to adopt a deep approach to learning and to achieve higher quality learning outcomes than those who saw learning as a reproductive process. Martin and Ramsden (1987) in a study of 60 first-year history students found a direct relationship between students' conceptions of learning and their academic performance. All students achieving high grades exhibited Conceptions D or E, whereas those who obtained low grades described conceptions at the lower end of the hierarchy. Similarly, Morris (2001) identified a direct relationship between conceptions of learning, approaches to learning and learning outcomes for first year physiotherapy students. In another study Van Rossum *et al.* (1985) concluded that students' learning conceptions are related to

their perceptions of the learning-teaching context. They found that the development of students' conceptions of learning could either be hindered or stimulated by the learning-teaching context.

Conceptions of learning have also been considered from a cross-cultural perspective and variations in the ways in which students describe learning have been identified. For example, no evidence of learning being conceived as memorizing was found among Nepalese secondary and higher education students (Watkins *et al.*, 1991; Watkins and Regmi, 1992). Moreover, only the higher education students saw learning as understanding. Marton *et al.* (1996) identified variation in the perceptions of different cultures regarding the relationships between learning, memorizing and understanding. In Western societies repetition and memorization are generally viewed as the antithesis of seeking understanding. In contrast, Asian students do not conceive memorization and understanding as opposites, rather they see them as intertwined activities, in that meaningful memorization contributes to understanding. These studies illustrate that different educational contexts define learning according to different social and culturally established conventions.

To date, there has been a scarcity of research focusing on accounting students' conceptions of learning. Sharma (1997) explored the conceptions of learning of second year accounting students in an Australian university. The study analysed students' written responses to the question 'what do you mean by learning?' The results indicated that the majority of students held reproductive conceptions of learning and tended to adopt surface approaches to learning. These students experienced high levels of syllabus boundness and had a fear of failure. Furthermore, they had a preference for highly organized courses with clear expectations. Flood and Wilson (2002) conducted in-depth interviews to investigate the conceptions of learning of eight students who had recently completed the final qualifying examination of the major professional accountancy bodies in Ireland. They found that the categories of learning conceptions presented by the professional accounting students were identical to those established in the higher education literature. The authors also found that the integration of training and education resulted in a number of the trainee accountants describing learning in terms of professional work activities. This further illustrates the contextual dependence of learning definitions (Saljo, 1979; Dart *et al.*, 2000).

The research study

The objective of this study is to examine the conceptions of learning of accounting students at an Irish university. The motivations for the research are primarily two-fold. First, to develop a contextualized understanding of students' conceptions of learning, there is a need to extend prior research to students in different disciplines and in different settings. As has been illustrated above, few research studies have explored the conceptions of learning of accounting students and none have done so in the higher education environment in Ireland. The second principal motivation for the study is the contribution it will make to understanding accounting students' learning approaches and learning outcomes. The authors have previously examined the learning approaches of Irish accounting students and the findings of this study may provide insights into why students' adopt certain approaches.

Saljo's (1979) original research concerning conceptions of learning, and much of the subsequent work in the area, is qualitative in orientation. While interviews have been the most commonly used means of data collection, some studies have used students' written descriptions of what learning means to them. It was decided to follow this approach in the current study as it allows for the collection of data from a larger number of students. It was recognized that this strategy has certain limitations compared to the interview method. In particular, the researchers

are unable to probe issues with students and/or to seek clarification regarding their expressions. Nevertheless, it was felt that it would provide insightful and valuable data which would meet the objectives of the study.

A student participation sheet was prepared to gather the required data concerning conceptions of learning. The sheet asked the student to provide details of his/her programme and year of study and then asked: 'In your own words, what does learning mean for you?' Students on the second year of the BA in Accounting and Finance programme and those on the MBS in Accounting programme were approached to participate in the study. Two educators provided class time towards the end of Semester 2 for the collection of the data. At the relevant sessions, 83% of the undergraduate class and 95% of the postgraduate class were present. To seek students' involvement, the purpose of the study was clearly explained and anonymity was assured. The participation sheets were then distributed and students were given 15 minutes to complete them. Every student returned a sheet, resulting in the collection of data from 96 undergraduate students and 39 postgraduates. Only three responses (all from undergraduates) proved to be unusable as the students failed to answer the question posed.

A rigorous data analysis process was then initiated. In the first instance, the two researchers, cognizant of the literature on conceptions of learning, separately categorized students' responses into the six conceptions delineated by Saljo (1979) and Marton *et al.* (1993). This was done by, first, reading through all of the responses to get a feel for their nature. Then each response was carefully re-read and, focusing on its substance and meaning as well as the actual words, the researcher determined a preliminary classification for each one. Following some time away from the data, the researcher reconsidered each response and finalized her judgement on the appropriate categorization. Having completed this activity, the two researchers then met to compare their analyses. It emerged that they had allocated 105 of the responses to the same categories, which was an inter-researcher categorizing reliability of 80%.¹ The un-agreed responses were re-examined and variation in the interpretation of the meaning or substance of them was discussed at length. This entailed the researchers assiduously interrogating their understanding of the various conceptions of learning. After this collaborative re-evaluation, both researchers agreed on the most appropriate categorization for the responses in question. As a further check on the appropriateness of the allocations to the different categories, the group of responses in each category were read to confirm similarity and consistency. Throughout the process, both researchers maintained an open mind for the discovery of new categories of descriptions. Ultimately, the categorization process was challenging and though-provoking and required thorough immersion in the data. However, the researchers were conscious that this engagement with the data not only aided the analysis process, but also facilitated the selection of excerpts which exemplify students' conceptions of learning in this setting.

Findings and discussion

The majority of the students in this study describe reproductive conceptions of learning. As can be seen from Table 2, 61% of the sample have been categorized as describing Conceptions A–C, with 30% holding the most simplistic conception, which views learning as the accumu-

¹In the case of the disputed responses the disagreement merely related to the specific classification within the two groups of conceptions (A–C and D–F).

Table 2. Categorization of the conceptions of learning of students in this study

<i>Conception</i>	<i>Undergraduates</i>	<i>Postgraduates</i>	<i>Total</i>
A	30 (33%)	10 (26%)	40 (30%)
B	12 (13%)	7 (18%)	19 (15%)
C	17 (18%)	4 (10%)	21 (16%)
D	27 (29%)	13 (33%)	40 (30%)
E	4 (4%)	4 (10%)	8 (6%)
F	3 (3%)	1 (3%)	4 (3%)
Total	93 (100%)	39 (100%)	132 (100%)

lation of knowledge. While 39% of students view learning in a more engaged manner involving the search for personal meaning, few students demonstrate conceptions of learning pertaining to either an interpretive process aimed at understanding reality or changing as a person. It is also interesting to note that there is little variation in the percentage of undergraduate and postgraduate students in each category. Before considering the implications of the profile of learning conceptions, a synthesis of descriptions which best illustrate the six conceptions is presented. Descriptions emanating from undergraduate students are designated with a 'U', while 'P' is assigned to postgraduates' responses.

Conception A – learning as the increase of knowledge

All of the typical characteristics of conceptions of learning falling within this category are evident in the students' descriptions. As found in other studies, each description does not embody a complete set of features of the conception, rather it reflects some fragment of it. In the first instance, the descriptions are vague and very brief. Additionally, one of the most common expositions of this conception is the perspective that learning is about acquiring new knowledge. There is a quantitative flavour to the descriptions and many students describe learning as knowing more than they did previously.

It means improving my knowledge of things. P106

Learning means picking up new information. U26

Gaining knowledge of information that you did not previously know. U16

Learning by definition is the capture of information from various sources . . . it is purely assimilation. P105

Learning in my opinion means receiving/gathering information on a topic and then using this information to boost your knowledge in the topic concerned. U30

Also, there is no sense that learning represents any sort of personal process, as the students with this conception fail to engage in learning activities. Rather, they describe learning as something which just happens to them or alternatively is imposed on them.

Sitting in the library surrounded by books and fellow scholars. The objective of all this sitting in the library is to improve my knowledge in the hope of getting a good job/career. P109

I see it as being something that is drilled into you from an early age, like it or not! P135

Conception B – learning as memorizing

This conception of learning has much in common with Conception A, in that students view learning as increasing knowledge in an impersonal, unengaged way. However, it also embraces memorizing knowledge and reproducing it for examination purposes. Thus, there is a functional aspect to the acquisition of knowledge, which is not evident with Conception A.

It more or less means learning information off to such an extent that you can go in and pass an exam. You may have no recollection of the information afterwards. It's all about passing the exam to get a job at the end of the day. P97

(Learning is) studying, i.e. reading, reciting and doing worked examples that enable me to go into exams without fear of failure. U69

Cramming like made the night before an exam, in the hope of passing it. Something you forget almost immediately. U7

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

As with the previous two conceptions, this conception is characterized by a lack of personal engagement and a focus on knowledge as opposed to understanding. Students with this conception view the application of knowledge as the primary focus of learning. The application of acquired knowledge is not restricted to its reproduction for examinations; instead students conceive using their knowledge in broader career and life situations.

Learning is the gaining of knowledge so as to solve problems in the real world. U55

Learning means gaining new knowledge and...being able to apply that knowledge to different situations. U62

Learning is about acquiring information to apply it in the future in various circumstances. U58

Being taught about a topic and applying this new knowledge to certain situations, be they in the home (cooking), work (management), social life (table quizzes). U53

Conception D – learning as the abstraction of meaning

The prior literature on conceptions of learning report a substantive shift in the orientation of Conception D compared to the conceptions lower down in the hierarchy. What distinguishes Conception D from Conceptions A–C is that it views understanding as being at the heart of learning. Also, in seeking understanding, students engage and internalize learning and they see it as yielding personal interest and benefit. A large number of descriptions gathered in this study used the word understanding. However, in interpreting these descriptions, only those which encapsulated a sense of seeking meaning and engagement were allocated to category D. Passing references to understanding, when the substantive orientation to learning was passive, disengaged and focused on knowledge accumulation, were categorized as evidencing Conceptions A–C as appropriate. Some descriptions gathered in this study which illustrate the centrality of seeking understanding in a personally engaged manner are:

Broadening your level of knowledge and understanding in an interactive manner. U90

Learning means for me the ability to understand material and apply that understanding to everyday life. U72

Learning means trying to understand things, getting to the bottom of things and trying to use this information to help us. It also means questioning. U66

Learning entails getting a firm grasp and understanding of material being studied. When we learn we increase our capabilities to deal with tasks and expand our knowledge base in various areas. In my opinion, learning cannot be something which is forced on us but something we must want to do and accomplish under our own initiative. U88

Learning is the continuous interaction with all aspects of the course until a particular level of understanding is achieved. U83

Learning is understanding information and being able to expand on it in your own words, it is being able to use the information as your own. U76

Some of the descriptions explicitly reject rote-learning, in favour of seeking personal meaning for long term benefits:

Learning is not learning things off by heart for an exam because this offers no benefit for you in the longer term. P123

It means understanding something well enough to speak or write about it intelligently. It does not mean learning off facts and regurgitating them. U73

The meaning-making which embodies this conception is also operationalized through integrating knowledge and understanding across subject areas and over time:

Learning means understanding from first principles the concepts of a topic first, then building on these with details . . . and then linking the topic into what I have learnt before. P124

Being able to understand course work and not just repeating it . . . being able to combine different subjects to get an overall understanding. U82

Furthermore, a number of students' descriptions refer to learning as embracing the ability to demonstrate understanding by explaining issues or concepts to others:

(Learning is) the ability to understand something and to be able to explain something to somebody. P128

Learning means understanding something inside out, getting to grips with it and being able to explain it easily to someone else. P127

Conception D is a much more involved conception of learning than the previous ones, which were all reproductive in orientation. Its complexity is evident in the variety of features associated with it, which are exemplified above. No student described every characteristic of the conception, rather each depicted fragments of it, but in all cases seeking personal understanding was central to the descriptions.

Conception E – learning as an interpretative process aimed at the understanding of reality

This conception of learning extends the prior conception by recognizing that one can use personal meaning to understand the world. It is epitomized by the idea of understanding different perspectives of phenomena. This type of understanding is achieved by actively interrogating arguments, appreciating different ways of viewing things, reflecting on the diversity of opinions and forming one's own perspective. As indicated in Table 2, the descriptions of only eight students have been allocated to this category. Indeed, these descriptions exemplify only small

fragments of the conception, but they sufficiently demonstrate a conception of learning beyond the scope of Conception D.

Allowing yourself to be influenced by different perspectives in order to gain your own. U48

To learn from experiences in life... to be able to understand things... to make a more rounded person, open to the views of others. U92

Learning for me is the progressive building of knowledge and being able to apply this to different situations, while also modifying your beliefs as you experience new things. U81

Being able to develop new ideas, it's not just what you are taught. P125

Conception F – learning as changing as a person

This conception is distinguished from the previous one by learners recognizing that, in seeing things from different perspectives, they are transformed by their learning. Through their insights they develop as people. Four students have been allocated to this category and, while none of their descriptions are exemplars of the conception, they nevertheless convey some sense of its essence:

Learning for me is developing as a person, not just about learning from textbooks – it's the whole experience. U95

Learning is developing as a person through a wider acceptance of other people and cultures. U91.

Learning means getting to know and understand previously unknown material. However, I believe there is no one definition for learning, as learning for every individual is different. Learning also comes in many forms... however, to me it means furthering yourself in all aspects of life. U94

Improving one's knowledge, mind, abilities, ways of things. Doing things better. Changing. P113

The above analysis shows that the variation in the meaning of learning described in this study is captured by the six conceptions of learning identified by Saljo (1979) and Marton *et al.* (1993). Evidence of all six conceptions was found and no new conceptions were identified. The majority of accounting students both at undergraduate and postgraduate level hold quantitative, reproductive and external conceptions of learning. It is likely that these students adopt approaches to learning that are surface-oriented and utilitarian. Consequently, they will not develop the knowledge, skills and competencies expected of accounting graduates. A comparison of the findings of this study regarding undergraduate students with Sharma's (1997) Australian study reveals a more favourable position for the Irish students. Only 20% of the Australian students were classified as holding a constructive conception, while 36% of the Irish students held these higher level conceptions. This variation may be explained by differences in students' characteristics, prior learning experiences and aspects of the learning environment. In the current study, while more postgraduate than undergraduate students conceive learning from a qualitative, personal perspective focused on seeking meaning, the difference is not noteworthy. The researchers expected the postgraduate students to hold more advanced conceptions of learning for a number of reasons. First, they are all good honours graduates who are in their fourth year at university. Secondly, their postgraduate programme is designed to foster deep understanding and the course requirements and the learning environment encourage interaction and engagement with learning activities.

Implications and suggestions for future research

The results of this study have serious implications for accounting education. Over 60% of students in the sample state that they hold reproductive conceptions of learning and so are more likely to adopt surface approaches to learning. Consequently, they will fail to gain deep understanding of the subject content and will lack the forms of knowledge, skills and competencies espoused by the accounting profession. If accounting programmes genuinely wish to foster high quality learning outcomes, they need to develop more sophisticated conceptions of learning among students. If students conceive learning as centring on understanding and personal development, they are more likely to engage in deep learning resulting in desirable learning outcomes. However, advancing students' conceptions of learning is a challenging task and there is unlikely to be one obvious approach or solution. It may be that students would benefit from both gaining personal awareness of their own conception of learning and developing an appreciation of the different conceptions and their relative merits. While this may not directly alter students' conceptions, it may result in their being more reflective about what learning means to them.

Perhaps, more importantly, educators must create a teaching and learning environment that is more conducive to the development of higher learning conceptions. Such an environment requires the constructive alignment of curriculum, teaching and assessment (Biggs, 1999, p. 27). With this constructive approach, the objectives of the curriculum and the levels of understanding which students must achieve are clearly stated. The teaching methods employed then support the attainment of these objectives and the assessment techniques test how successful students have been in meeting them. In this setting, students are purposively motivated to engage in learning for understanding, and hopefully through this process they will advance their conceptions of learning. To inform the design of an aligned teaching and learning context in the discipline of accounting, there is a need to increase the level of research into the learning of accounting students. As part of this research agenda, efforts are required to explicate the factors which influence conceptions of learning. Furthermore, changes in students' conceptions over time and in the light of teaching and learning innovations must be explored.

Conclusions

This study examined the conceptions of learning of accounting students at an Irish university. All six conceptions of learning identified in prior studies were evidenced among students' descriptions. The majority of students described learning as an external process focused on the acquisition and/or application of knowledge. While almost one-third of students associate learning with seeking personal meaning, few conceived learning as extending to developing one's own perspective or changing as a person. Given the relationships between advanced conceptions of learning and high quality learning approaches and outcomes, there is a need for accounting educators to foster learning environments which encourage and stimulate higher order conceptions.

Acknowledgement

The authors wish to thank Aileen O'Callaghan (graduate of the M.B.S. in Accounting) for collecting the data used in this study.

References

- Beattie, V., Collins, B. and McInnes, B. (1997) Deep and surface learning: a simple or simplistic dichotomy?, *Accounting Education: an international journal* **6** (1), 1–12.
- Biggs, J. (1999) *Teaching for Quality Learning at University*. Buckingham: Society for Research in Higher Education and Open University Press.
- Booth, P., Lockett, P. and Mladenovic, R. (1999) The quality of learning in accounting education: the impact of approaches to learning on academic performance, *Accounting Education: an international journal* **8** (4), 277–300.
- Chalmers, D. and Fuller, R. (1996) *Teaching for Learning at University*. London: Kogan Page.
- Dahlgren, L. and Marton, F. (1978) Students' conceptions of subject matter: an aspect of learning and teaching in higher education, *Studies in Higher Education* **3** (1), 25–35.
- Dart, B. (1998). Teaching for improved learning in small classes. In B. Dart and G. Boulton-Lewis (eds) *Teaching and Learning in Higher Education*, pp. 222–49. Melbourne: Australian Council for Educational Research.
- Dart, B., Burnett, P., Purdie, N. and Boulton-Lewis, G. (2000) Students' conceptions of learning, the classroom environment, and approaches to learning, *The Journal of Educational Research* **93** (4), 262–73.
- Davidson, R. (2002) Relationship of study approach and exam performance, *Journal of Accounting Education* **20** (1), 29–44.
- Flood, B. and Wilson, R.M.S. (2002) Conceptions of learning of prospective professional accountants. Paper presented at the British Accounting Association's Annual Conference, Jersey, 3–5 April.
- Gibbs, G. (1995) Changing lecturer's conceptions of learning through action research. In A. Brew (ed.) *Directions in Staff Development*, pp. 21–35. Buckingham: Society for Research in Higher Education and Open University Press.
- Martin, E. and Ramsden, P. (1987) Learning skills, or skill in learning? In J.T. Richardson, M.W. Eysenck and D. Warren Piper (eds) *Student Learning: Research in Education and Cognitive Psychology*, pp. 155–67. Milton Keynes: Society for Research in Higher Education and Open University Press.
- Marton, F. and Ramsden, P. (1988) What does it take to improve learning? In P. Ramsden (ed.) *Improving Learning New Perspectives*, pp. 268–86. London: Kogan Page.
- Marton, F. and Booth, S. (1997) *Learning and Awareness*. Hillsdale, NJ: Lawrence Erlbaum Associates.
- Marton, F., Dall'Alba, G. and Beaty, E. (1993) Conceptions of learning, *International Journal of Educational Research* **19**, 277–300.
- Marton, F., Dall'Alba, G. and Tse, L. (1996) Memorising and understanding: the key to the paradox. In D. Watkins and J. Biggs (eds) *The Chinese Learner: Cultural, Psychological and Contextual Influences*, pp. 69–84. Hong Kong and Melbourne: Comparative Education Research Centre/Australian Council for Educational Research.
- Morris, J. (2001) The conceptions of the nature of learning of first-year physiotherapy students and their relationships to students' learning outcomes, *Medical Teacher* **23** (5), 503–7.
- Pillay, H. and Boulton-Lewis, G. (2000) Variations in conceptions of learning in construction technology: implications for learning, *Journal of Education and Work* **13** (2), 163–81.
- Prosser, M. and Miller, R. (1989) The 'how' and 'what' of learning physics: a phenomenographic study, *European Journal of Psychology and Education* **4**, 513–28.
- Richardson, J.T.E. (2000) *Researching Student Learning: Approaches to Studying in Campus-based and Distance Education*. Buckingham: Society for Research in Higher Education and Open University Press.
- Saljo, R. (1979) *Learning in the Learner's Perspective*. Reports from the Department of Education No. 76, Goteborg: Goteborg University.

- Saljo, R. (1987) The educational construction of learning. In J.T.E. Richardson, M.W. Eysenck and D. Warren Piper (eds) *Student Learning: Research in Education and Cognitive Psychology*, pp. 101–8. Milton Keynes: Society for Research in Higher Education and Open University Press.
- Sharma, D. (1997) Accounting students' learning conceptions, approaches to learning, and the influence of the learning–teaching context on approaches to learning, *Accounting Education: an international journal* **6** (2), 125–46.
- Svensson, L. (1977) On qualitative differences in learning III – study skill and learning, *British Journal of Educational Psychology* **47** (3), 233–43.
- Trigwell, K. and Prosser, M. (1991) Relating approaches to study and quality of learning outcomes at the course level, *British Journal of Educational Psychology* **61** (3), 265–75.
- Trigwell, K. and Prosser, M. (1996) Changing approaches to teaching: a relational perspective, *Studies in Higher Education* **21** (3), 275–84.
- Van Rossum, E.J. and Schenk, S.M. (1984) The relationship between learning conception, study strategy and learning outcome, *British Journal of Educational Psychology* **54** (1), 73–83.
- Van Rossum, E.J., Deijkers, R. and Hamer, R. (1985) Students' learning conceptions and their interpretation of significant educational concepts, *Higher Education* **14** (6), 617–41.
- Vermunt, J.D. and Van Rijswijk, F.A. (1988) Analysis and development of students' skills in selfregulated learning, *Higher Education* **17** (6), 647–82.
- Watkins, D. and Regmi, M. (1992) How universal are student conceptions of learning? A Nepalese investigation, *Psychologia* **25**, 101–10.
- Watkins, D., Regmi, M. and Astilla, E. (1991) The Asian as a rote learner stereotype: myth or reality, *Educational Psychology* **11** (1), 21–34.