Conceptions Of Learning In Accounting

Anne ESKOLA
JAMK University of Applied Sciences
anne.eskola@jamk.fi

ABSTRACT

The purpose of this study is to explore the conceptions of learning exhibited by accounting students in higher education context. The research approach is qualitative and the research method used is phenomenography. The data of the study is collected from 10 diaries and 14 interviews. The analysis uses a theoretical framework designed by Entwistle (2007) for classifying the conceptions of learning. The results reveal that there were two elements present at the same time: learning in the absolute sense, i.e., the experience of learning, and learning in the relative sense, which could be called the professional or expertise level.

1. INTRODUCTION

The conception of learning as such can be seen having importance on experiences in learning. However, there is no single generally accepted definition of learning. Differences between the traditions and constructs emerge both from theoretical backgrounds and from methodologies. Nonetheless, all traditions agree that experience is an important component of successful learning. No matter what the perspectives and scientific backgrounds are, there are certain common elements that they each would define as learning: something happens to the student and leads to change in behaviour. (Heikkilä & Lonka 2006; Marriott 2004.)

A conception of learning is defined by Tynjälä (1997; 1999) as a coherent system of knowledge and beliefs about learning and related phenomena. Research on conceptions proceeds along two broad lines: cognitively oriented studies of mental models and experientially oriented phenomenographic studies. Cognitive studies seek to uncover mental representations and changes in them. Phenomenographic research aims at capturing the different ways in which people understand and describe phenomena. In the background of many studies of conceptions is Piaget's assumption that conceptional learning resembles the development of scientific theories. It might be assumed that if students' everyday experiences of learning and studying are based mainly on situations that reflect the behaviourist view of learning, students' conceptions of learning develop in the same direction. Similarly, a learning environment based on the constructivist view may influence the students' views of learning in the direction of constructivism.

The constructivist view of learning is not a unified theory. Instead, it can be seen as a collection of diverse dispositions having some general common features. The theory assumes that the learner has a set of experiences. The model is based around the actions a learner takes to reorganize new information and beliefs into an understandable format. Learning is not seen as a passive receiving of information and knowledge cannot be simply transmitted to the learner. Instead, learning is achieved when the learner creates new internal meanings from newly presented information. Learning is a process of developing connections and new understandings rather than memorizing content. The learner's previous conceptions and beliefs about the topic create dissonance. This dissonance is resolved as new models are created to explain the incongruities in the learner's prior knowledge and understandings. Constructivism requires students continuously to develop their knowledge and understanding as they explore real-world problems for the first time. Learning is contextual in nature. Students taught with constructivist negotiate meaning from divergent perspectives to solve a problem. Teacher's role is to pose problems in realistic, meaningful contexts and to model behaviours that facilitate and ensure that learners attend to inconsistencies and errors arising in their mental representations. The teacher thus becomes a coach rather than a presenter of knowledge. (Smith 2004; Springer & Borthick 2004; Tynjälä 1997.)

Constructivist learning theory applies to learning at all ages but it seems to be especially suitable for advanced learners such as higher education level students. Since higher level educational institutions are communities for producing knowledge, it would actually seem paradoxical that instruction and student learning in a higher level educational institution would be dominated by the knowledge transmitting paradigm on learning accompanied by reproductive assessment methods. (Tynjälä 1997.)

Phenomenographic research deals with the content aspect of learning. Learners' conceptions of what learning actually is are considered crucial for the way in which students experience learning, and thus for what approach students adopt in specific learning tasks. Whatever phenomenon or situation people encounter, it is considered possible to identify a limited number of qualitatively different and logically interrelated ways in which the phenomenon or the situation is experienced or understood. In subsequent studies this recurring principle has been applied also outside the educational context. (Marton 1994b.)

Learning is considered a function of both student and context. There is a well-established and substantial body of research which supports the contention that students' approaches to learning are related to their conceptions of learning and their perceptions of teaching context. These approaches determine the quality of the learning outcome. Two major lines of research have contributed to this finding: phenomenographic research focusing on ascertaining students' conceptions and approaches to learning and the qualitative differences between both conceptions and approaches, and inventory-based research on students' orientations to studying. (Lucas 2001.)

Learning implies that the learners develop capabilities for experiencing situations and phenomena in certain ways. For every kind of situation and phenomenon it is possible to identify a limited number of different ways a situation or phenomenon can be experienced. The differences can be understood as critical aspects that define the situation or phenomenon as experienced. Therefore, students can be prepared for the unknown variation of situations in the future through experiencing variation in their education. (Bowden & Marton 2004.)

Indeed, a conception of learning encompasses an element of what, i.e. the object of learning, and an element of how, i.e. the way of going about learning or aspect of learning. In reality, students' descriptions seldom capture both dimensions. Building on the theories of Säljö, refined later by Entwistle, conceptions of learning can be described as a construct consisting of six different levels that create a hierarchy:

1. the increase of knowledge,
2. memorizing,
3. acquisition of facts and procedures that can be retained and used in practice,
4. abstraction of meaning,
5. interpretative process aimed at the understanding of reality, and
6. changing as a person. (Entwistle 2007; Lord & Robertson 2006.)

The first three categories position learning as something that is external to the learner. Learning is seen as a reproductive, functional, instrumental and quantitative process. Learning either just happens, or it is done by teachers and thus leaves a very passive role for the learner. The latter three categories that can be considered constructivist highlight the personal aspect of learning. Learning is something a student does in order to understand the world. Research has also shown that conceptions of learning are not stable characteristics of students, but the conceptions change over time and with different learning experiences as students proceed through their studies. (Byrne & Flood 2004; Lord & Robertson 2006.)

The first two and last two levels are usually relatively easy to understand and they are familiar. However, the two levels in between, i.e. the comprehension-learning level, are also crucial. Comprehension involves translation, interpretation and connecting newly learned and previously learned materials. At the rote level, students can recall the teacher's definition of a concept, but at the comprehension level, they develop their own meaningful and correct definitions, explain ideas and their importance and learn how to make predictions based on understanding ideas. This is the first step into critical thinking. One implication of the constructivist view of learning is that the development of students' conceptions of the phenomena studied is seen as a central learning outcome. (Brightman 2006; Tynjälä 1999.) According to Lindblom-Ylänne and Lonka (1999), many studies on learning have evidenced that the core concepts of learning are that knowledge and cognitive strategies are constructed by the learner, and that learning involves qualitative modification, not just the accumulation of new information in memory.

The purpose of this study is to find out how accounting students understand the conception of learning in the context of higher education and how the different conceptions can be classified. The research question is: What are the conceptions of learning of accounting students? The research method is phenomenography. It is a research approach designed to answer questions about thinking and learning. Phenomenography is concerned with the subjective study of human experience. It focuses on the different ways in which people experience, see, perceive, apprehend, understand and conceptualise various phenomena.

These different ways of understanding, or conceptions, are represented in the form of categories of description. A conception is the basic unit of description in phenomenographic research. (Marton, 1994a ; Marton & Pong, 2005.)

This article is constructed as follows. After introduction there will be the description of data, research method and analysis in chapter two. Chapter three handles the results and in chapter four there is a discussion.

2. DESCRIPTION OF DATA, METHOD AND EMPIRICAL ANALYSIS

Phenomenography can be classified as empirical study. The researcher is studying the awareness and reflection of the subjects. Phenomenography falls within interpretive research. It aims to describe experience collectively rather than individually and to focus on the differences rather than the similarities in this experience. Conceptions are regarded as being context-dependent and relational. (Leveson 2004; Lucas 2001; Marton 1994a.) The aim of phenomenographic research is to map the variation in ways of experiencing. What is important is the nature of the variation instead of how common or representative an experience is. The researcher must set aside any presuppositions about the nature of the phenomenon. It is also impossible to construct hypotheses or interpretative categories in advance or try to sample the material. Through exploring the different ways of seeing a phenomenon, a fuller understanding is developed. The variation becomes the object of research. Outcomes are represented as different ways of experiencing the phenomenon that include the structural relationships. (Lucas 2001; Tempone & Martin 2003; Åkerlind 2005.)

Individual interviews have been the most used method for collecting data but there are also phenomenographic studies where group interviews, observations, drawings, written responses, historical documents, artefacts and observations have been used as the main source of information. The number of interviewees is usually not very big. The individual is not the unit of analysis because it is possible that the same participant can express more than one way of understanding the phenomenon. (Marton 1994a.)

The data for the study was collected from two kinds of sources: 10 diaries in writing and 14 both group and individual interviews. The writing of learning diaries happened in a longer period of time (3-4 months). After the preliminary analysis of the diary data, five group interviews were recorded. There were always three people participating in a group except for one group that consisted of two people, so that the number of interviewed was 14 people in total. The sample in a phenomenographic study should be chosen for heterogeneity rather than for representativeness. This means that phenomenographic research outcomes do not enable generalisation from the sample group to the population represented by the group, because the sample is not representative of the population in the usual sense of the term. (Åkerlind 2005.) The interviews lasted from half an hour to one hour. The questions were semi structured and they had been formulated on the basis of the findings from issues that were raised in descriptions, or in prior interviews or in prior studies of the same kind. In the course of the interview, the researcher also questioned about new issues that were brought about.

The analysis process is iterative. It usually starts with a search for meaning or variation in meaning followed by a search for structural relationships between meanings. In the early phase, reading through transcripts should be done as with a high degree of openness for different interpretations. Subsequent readings are more focused on particular aspects. However, later readings are still open to new possible interpretations. Data is sorted and resorted, comparisons between the data are done and categories of description and defining relations between the categories are developed. The important point is the search for key qualitative similarities within and differences between the categories. (Åkerlind 2005.)

The first way of reducing the data is to distinguish between what is immediately relevant. This relates to the way of experiencing the phenomenon. The second step is to identify distinct ways of experiencing the phenomenon based on similarities or contrast effect. Then focus is shifted from the relations between the expressions to the relations between the groups. This is done in order to establish the critical attributes of each group and the distinguishing features between the groups. The researcher develops the set of categories of description. Using these categories of description it is possible to characterise the variation in ways of experiencing and understanding a phenomenon. There are logical relations between the categories of description. As they represent different capabilities for conceptualising the phenomenon, a hierarchy can be established. This complex of categories of descriptions is the outcome space. The categories of description and the outcome space are the main results of a phenomenographic study. (Marton 1994a.)

The analysis started with a search for meaning or with a search for variation in meaning. At this point, the main purpose was to find out what could possibly emerge from the data. Any predetermined ideas were dropped as much as it is possible to do so and the first reading was done with an open mind without any attempt to foreclose anything. The main point was in identifying similarities and differences in diaries

and interview data and the possible relationships between categories as a set rather than individually. Then it was supplemented by a search for structural relationships between these meanings.

The amount of material in one interview was very big. This is why excerpts or utterances that seemed to contain the key aspects that also were present in the larger transcript were selected, while irrelevant or redundant parts of the data were rejected. The number of interviews was restricted for the same reason. The whole readings process was iterative. The first readings were kept as open as possible. The analysis started with a search for meaning supplemented by a search for relationships between meanings. Then the emphasis was more focused on particular aspects. Even at this point, any new interpretations were considered possible. The material was sorted and resorted many times while the categories were developed and redeveloped at the same time. The main emphasis was in the search for key similarities within and differences between the categories. This meant that the quotes or utterances were grouped and regrouped according to similarities and differences on the basis of different criteria. This was done as long as the rate of change became very small. These selected quotes finally represented the data that was used for next analysis.

The next step was to look for a meaning that could be revealed by the quotes. This interpretation phase was also iterative and had to be done many times from different perspectives, because there were so many aspects present at the same time that looking at them all at once would have been impossible. The utterances were put in categories using the chosen theoretical model on the basis of their similarities.

3. RESULTS

In the learning diaries and interviews students defined what learning in general means to them. The variation in descriptions ranged from a mere accumulation of knowledge to more complex and abstract conceptions of learning. The way students experience learning are characterizations focusing on a certain aspect they consider important. For some students, regardless of what kind of wording they choose to express their definition of learning, learning represents knowledge and information that accumulates in function of time being spent in the education. In other descriptions there is the element of understanding added in learning definitions, which can be interpreted so that the student is not concentrating on the amount of facts and knowledge only, but also adding some personal processing or input. These descriptions very often introduce the concept of understanding, which in turn easily becomes opposed to the concept of rotelearning. The higher levels of learning can be described as constructivist levels because they contain features that are in line with the constructivist learning theory like the elements of applying information, understanding the relationships between practice and theory and relating information to what the person already knows in advance. It seems plausible that any other key conceptions present in a learning process will be influenced by the fact how students understand learning. The learning conception thus has influence on how the roles of the learner and the teacher are seen.

FIGURE 1 Example of analysis

Increase of knowledge	Memorizing
Learning is accumulation of new information.	*Learning means that you know things deeply. If you have read and know by heart and you can repeat the whole book but you don't understand – it's not learning. It's memorizing.*
Learning is about increasing awareness of things.	*Good learning is about understanding, not just rote learning. You understand why you calculate it in a certain way and where everything comes from, not just by heart.*

Acquisition of facts and procedures that can be retained and used in practice	Abstraction of meaning
Learning means that you are able to apply… and use the knowledge in different ways.	*In a good learning situation theory and practice are combined and you understand why something is calculated a certain way.*
Learning means that you learn new things deeply and can apply in practise if necessary.	*Learning is about understanding new things. And that you can connect them with what you know already.*

Interpretative process aimed at the understanding of reality	Changing as a person
Learning is realization and getting an experience of understanding. And a feeling that... like that you all suddenly use terms that once were double Dutch to you... I remember when I started here I understood nothing of anything but soon I realized I used the same terms and understood them all.	*When I had completed accounting courses I finally dared to participate in the board of our housing co-op. Without these studies I wouldn't have had the courage.*
Completing this grade I have learned plenty of new things. It's more about integrity, different standpoints and levels of observation.	*I learned that I can learn new things.*

When defining learning in accounting on a general level, the learning definitions as such did not always necessarily reach the higher definition levels, but when describing the outcome of learning accounting at least at some point of time in the future or finally at the end of studies, it was easier for the informants to reach higher and more abstract definition levels. This can be interpreted so that even if the students' present conception of learning lacked sophistication, they were aware of more complex levels of learning and could see them developing in themselves in the course of time spent in higher education – or that they kept that as their ambition while recognizing that they had not yet attained that level.

Any individual's conception of learning is likely to have an influence on their perception of the key elements in learning. Basically, learning could be defined as changes in capabilities for experiencing and being aware of the object of learning. In this case the object of learning is accounting. The data also shows that, for students, learning something new about themselves or recognizing changes happen in the course of the studies was a key aspect of good learning. Also, students, when describing positive and good learning experiences, emphasized their willingness to learn for reasons that had something to do with their own personal development. This can be interpreted so that the upper the students had climbed the learning conceptions classification, the bigger their level of satisfaction was. Also, their ability to analyse themselves as learners and their ability to recognize the changes increased.

Defining the conception of learning as such was not the only important issue in learning. Also, it was important for the students to monitor the learning on the relational level; to define the acceptable level of learning as comparing to the level which students felt they should have acquired at that

specific point of their studies. The definitions varied as well as the attitude towards the possible deficiency experienced. If the acceptable level of learning was experienced inadequate, it could be a constant source of worries or it could be a fact that just had to be accepted being part of the learning process. In the definitions of learning there were two elements present at the same time: learning in the absolute sense, i.e., the experience of learning, and learning in the relative sense, i.e., the level of learning as comparing to what the learners believed they should have attained at some specific point in their studies or relative to outside expectations. This could be called the professional or expertise level. The former one can be seen linking to students' conceptions of what learning actually means to them. The latter one is more related to their conceptions of what they suppose learning means on the professional level and to external expectations concerning accounting expertise. This result can also be connected with motivational aspects. Learning in the absolute sense can be seen as having connections with intrinsic motivational aspects whereas learning in the relative sense can be interpreted as having connections with extrinsic motivational aspects.

The data shows that despite good experiences in explicit content learning, there may be huge deficiencies experienced in practical skills learning. Since there is knowledge that represents different levels of complexity and there are learning conceptions that also represent different levels of complexity, it can be assumed that these two depend on each other. In order to be able to master more complex knowledge students must at the same time develop more complex conceptions of learning.

4. DISCUSSION

If the definition of learning is not in line with constructivist conceptions of learning that are the three latter levels of Entwistle's (2007) model, it may have effect in how students experience learning of accounting and what their learning behaviours are like. If the students had proceeded to upper levels of learning conceptualizing, it seemed to increase their ability to analyse themselves as learners and to see the changes happening in themselves as learners. This awareness increases the ability of self-regulation in the learning process.

At the point when students are studying accounting, it is easier to master explicit knowledge, but practical knowledge is still on its way to develop. However, the answers show that students had formed a conception of practical knowledge they should attain, but since it represents a higher form of knowledge, probably requiring a more complex level of learning as well, it had not yet developed to its maturity. Self-regulative knowledge seems to be an important mediator in helping students to move from declarative knowledge levels towards practical knowledge levels.

Lucas (2001) states that the learning approaches are related to the conceptions of learning and perceptions of teaching. Thus, on the basis of these different notions of learning it can be stated that the ultimate aim in learning should be towards the top of the learning classification, taking into account that it might be necessary to go through the other steps or some of the other steps as well before this becomes possible. The first three levels describe learning as accumulation of factual information whereas the three upper levels describe learning as a process where students acquire knowledge they can use and apply in the future. The upper levels represent the meta learning level where students are aware of their learning and able to bring appropriate cognitive strategies in the learning situation and monitor their progress towards the established goals. Only the three upper layers represent learning as it is described by the constructivist learning theory.

The discrepancy between absolute and relative learning can be explained by the fact that knowledge manifests itself in many ways in learning situations, and some forms of knowledge are more easily attainable than others. Tynjälä (1999) says that expert knowledge includes formal or declarative knowledge, practical knowledge, and self-regulative knowledge. Such explicit and factual knowledge has traditionally played a major role in education, and as such it constitutes the core of professional competence. Practical knowledge, often called procedural knowledge, manifests itself as skills or knowing-how. While formal knowledge may be described as universal and explicit, practical knowledge is personal, intuition-like and difficult to be expressed explicitly. Self- regulative knowledge consists of meta-cognitive and reflective skills that individuals use to monitor and evaluate their actions.

The learning conceptions ranged from the very bottom level conceptions concerning increase and memorization of knowledge to more complex level conceptions concerning acquisition and abstraction and also to higher level conceptions including interpretation and personal change levels. The three last mentioned can be considered being relevant in the constructivist learning view. If learning is defined as abstraction, interpretation and changing as a person, as it is in constructivist categories, then it inevitably has some implications on how we define the learner and how we see learner positioning in

the learning process. Constructivist learning theories assume that a learner cannot be a passive recipient of information, but rather an active and participative partner in the learning process; someone who consciously takes well-grounded decisions concerning his own learning process.

However, it was not only learning in the absolute sense of the phenomenon that was seen important in the light of the data. In addition, learning on the relative level, i.e. in comparison with what we could call the expert or professional level, was an important part of the learning descriptions. The results of this study suggest that there could be a discrepancy between these two learning experiences. It is possible that personal learning experiences as such are good, but this does not yet necessarily guarantee that the students would judge themselves as being on the required level of expertise needed, for example, for working life purposes. Since the aim of accounting education is to produce future employees for a variety of accounting tasks, educators need to be able to improve the learning experiences also from the professional point of view. This is especially important because the standing of educational institutions with regard to society and business life has experienced a change towards a much less isolated position; educational institutions are expected to produce prospective work force for expert tasks and educational institutions' whole existence depends on their ability to fulfil this task given to them. It is thus possible to conclude that learning in the absolute sense is a necessary condition for good learning experiences but it is not a sufficient condition. In addition, good learning experiences with regard to the professional expert level are also needed.

References

Bowden, J. & Marton, F. (2004). The University of Learning Beyond Quality and Competence in Higher Education.

Brightman, H. J. (2006). Mentoring Faculty to Improve Teaching and Student Learning. Issues in *Accounting Education* 21 (2), 127-146.

Byrne, M. & Flood, B. (200)4. Exploring the conceptions of learning of accounting students. *Accounting Education* 13 (Supplement 1), 25-37.

Entwistle, N. 2007. Conceptions of Learning and the Experience of Understanding: Thresholds, Conceptual Influences, and Knowledge Objects. In Vosniaudou, S., Baltas, A. & Vamvakoussi, X. (Eds.) Reframing the Conceptual Change Approach in Learning and Instruction. Elsevier, 123-143.

Heikkilä, A. & Lonka, K. (2006). Studying in higher education: students' approaches to learning, self-regulation and cognitive strategies. *Studies in Higher Education* 31 (1), 99-117.

Leveson, L. (2004). Encouraging better learning through better teaching: a study of approaches to teaching in accounting. *Accounting Education* 13 (4), 529-548.

Lindblom-Ylänne, S. & Lonka, K. (1999). Individual ways of interacting with the learning environment – are they related to study success? *Learning and Instruction* 9 (1), 1-18.

Lonka, K., Olkinuora, E. & Mäkinen, J. (2004). Aspects and Prospects of Measur- ing Studying and Learning in Higher Education. *Educational Psychology Review* 16 (4), 301-323.

Lord, B. R & Robertson, J. (2006). Students' Experiences of Learning in a Third-year Management Accounting Class: Evidence from New Zealand. *Accounting Education* 15 (1), 41-59.

Lucas, U. (2001). Deep and surface approaches to learning within introductory accounting: a phenomenographic study. *Accounting Education* 10 (2), 161-184.

Marriott, N. (2004). Using computerized business simulations and spreadsheet models in accounting education: a case study. *Accounting Education* 13 (Supplement 1), 55-70.

Marton, F. (1994a). Phenomenography as a Research Approach. In Husén, T. & Postlethwaite, N. *The International Encyclopedia of Education*, Second edition, 8. 4424 – 4429. Pergamon.

Marton, F. (1994b). Phenomenography as a Research Approach. In Husén, T. & Postlethwaite, N. The International Encyclopedia of Education, Second edition, 8. 4424 – 4429. Pergamon.

Marton, F. & Pong, W. Y. (2005). On the unit of description in phenomenography *Higher Education Research & Development* 24 (4), 335-348.

Sharma, D. S. (1997). Accounting student's learning conceptions, approaches to learning, and the influence of the learning-teaching context on approaches to learning. *Accounting Education* 6 (2), 125-146.

Smith, G. S. (2004). Assessment strategies: what is being measured in student course evaluations? *Accounting Education* 13 (1), 3-28.

Springer, C. W. & Borthick, F. A. (2004). Business Simulation to Stage Critical Thinking in Introductory Accounting: Rationale, Design, and Implementation. *Issues in Accounting Education* 19 (3), 277-303.

Tempone, I. & Martin, E. (2003). Iteration between theory and practice as a pathway to developing generic skills in accounting. *Accounting Education* 12 (3), 227-244.

Tynjälä, P. (1997). Developing education students' conceptions of the learning process in different learning environments. *Learning and Instruction* 7 (3), 277-292.

Tynjälä, P. (1999). Towards expert knowledge? A comparison between a constructivist and traditional learning environment in the university. *Interna- tional Journal of Educational Reseach* 31 (5), 357-442.

Åkerlind, G. S. (2005). Variation and commonality in phenomenographic research methods. *Higher Education Research & Development* 24 (4), 321- 334.