



UNIVERSITI PUTRA MALAYSIA

**CONCEPTIONS OF LEARNING AMONG THE
SUDANESE STUDENTS IN UNIVERSITI
PUTRA MALAYSIA**

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SUDANESE STUDENTS IN UNIVERSITI
PUTRA MALAYSIA**

BY

MAHASIN GADALLA MOHAMED

**Project Submitted as Partial Fulfilment of the Requirements for the Degree in
Master of Science at Department of Educational Technology
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DEDICATION

Dedicated to

My beloved husband

Abdel Rahman Hassan

Whose love, support, and scarifies have
made this study possible.

My wonderful daughter

Rua

My parents

Who believe that learning is
forever and push me to study.

and

My brothers and sister Mona

Who support and encourage
me for more
learning.

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In the name of Allah, the most merciful and most benevolent.

From the depth of my heart, I would like to express my sincere appreciation to my supervisor Dr. Wan Zah Wan Ali for her compassion and understanding, encouragement, insights, guidance and time in guiding me in this research process.

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To my wonderful daughter Rua, I realise the sacrifices you went through when I sent you back to Sudan, during my studies period. To my parents, you always support me and encourage me for more education.

Allah blesses us all.



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Abstract of Project Presented to the Faculty of Educational Studies, Universiti Putra Malaysia in partial fulfilment of the requirements for the Degree of Master of Science

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February 1999

Supervisor: Dr. Wan Zah Wan Ali

Faculty: Educational Studies

The main point of the study is that human learning should be studied from a second-order perspective. Twenty-five post-graduate Sudanese students from various faculties at Universiti Putra Malaysia were asked about their view of learning. The qualitative data that has been acquired were analysed by using the inductive process known as phenomenography. The result of the analysis has identified four categories of learning conceptions: 1. acquisition of knowledge, 2. application of acquired knowledge, 3. understanding, and 4. changing human behaviour.

Most of the subjects in this study fall under the third and fourth categories that are, understanding and changing human behaviour respectively. In the third category, the subject goes deeply into the meaning of what he learned, so learning in this category is an active process that involves looking deeply into the materials. In the fourth category, the change occurs due to the knowledge that was acquired by the person. This new



knowledge made him a new person, and made a change in his thinking and in the way that he behaves. Small numbers of the subjects were fall under the first and the second categories that is the acquisition of knowledge and the application of acquired knowledge respectively. In these two categories, subjects viewed knowledge as stored material that is picked up from different sources and applied when necessary. The suggestions and implications of the differences in learning conceptions to achieve quality learning were highlighted.

Abstrak projek yang dikemukakan kepada Fakulti Pengajian Pendidikan Universiti Putra Malaysia sebagai memenuhi sebahagian syarat bagi mendapatkan Ijazah Master Sains.

Konsep Pembelajaran Kalangan Pelajar Sudan di Universiti Putra Malaysia

Oleh

MAHASIN GADALLA MOHAMED

Februari 1999

Penyelia: Dr. wan Zah Wan Ali

Fakulti : Pengajian Pendidikan

Tujuan utama kajian ini adalah untuk menunjukkan bahawa pembelajaran manusia harus dikaji dari perspektif order kedua. Dua puluh lima pelajar sarjana dari Sudan dan dari pelbagai fakulti di Universiti Putra Malaysia telah ditemu bual tentang makna pembelajaran bagi mereka. Data kualitatif yang didapati telah dianalisis dengan menggunakan proses induktif yang dikenali sebagai fenomenografi. Keputusan dari kajian ini telah mengenalpasti empat kategori konsep pembelajaran, iaitu pembelajaran sebagai; 1. Mendapatkan pengetahuan, 2. Menggunakan pengetahuan yang diperolehi, 3. Memahami, 4. Merubah tingkahlaku manusia.

Kebanyakan subjek dalam kajian ini tergolong dalam kategori ketiga dan keempat iaitu memahami dan mengubah tingkahlaku manusia. Subjek dalam kategori ketiga, didapati cuba mendalami maksud bahan yang sedang mereka pelajari. Manakala subjek dalam kategori keempat, cuba mengubah tingkahlakunya hasil daripada pengetahuan yang diperolehinya. Pengetahuan menjadikannya manusia baru dari segi pemikiran dan

cara berkelakuan. Sejumlah kecil subjek dalam kajian ini tergolong dalam kategori pertama dan kedua, yang berfokuskan kepada usaha mendapatkan dan menggunakan pengetahuan. Subjek dalam kedua-dua kategori menggambarkan pengetahuan sebagai bahan simpanan yang boleh diambil dari pelbagai sumber dan diaplikasikan apabila perlu. Cadangan dan implikasi kajian turut dibincangkan.

CHAPTER I

RESEARCH BACKGROUND

Introduction

Learning is an aspect of life and all situations provide potential learning experiences. On the other hand, many situations that are set up for the specific purpose of learning do not result in learning. Phillip Jackson (1960) gives an illustration of these specific situations in an important ethnographic study of life in classroom. When analysing this study, Säljö (1988) argued that although the classrooms were the places where the students get the information, what actually happens was not what they expected.

Even though classrooms are commonly conceived as places where teachers teach and pupil learn, it is evidence from Jackson's study that this account of what goes on is highly abstract and tells us very little about what people actually do (p.33).

Learning at school was the foundation for later learning at university level. Learning at school indicated that learners' previous experiences influenced the quality of their approaches to learning. Researchers in the field of higher education agreed that university students learned from their experiences. Wan Zah Wan Ali (1997), in her study about conception of learning, provided further support:

“It is clear that previous educational experience has a strong impact on student learning (p.7).”

The students enter the university with conceptions of learning that are derived from their school activities. Their perceptions of the quality of these activities is related to the way in which they approach learning at the university level (Crowford, 1994). Recently there has been a considerable increase in the number of studies concerning learning. The evaluations of these studies in higher education had indicated that students were highly responsive to aspects of teaching and assessment on their approaches to their work.

Approaches to learning were simply one of the ways in which the processing aspect has appeared. They have appeared as general relations between learners and particular content. The process of learning and the content of learning are two important aspects of the same whole. The interest in approaches to learning had come from the fact that learning is a human activity that occurs in a cultural context.

Teaching traditional study skills is not the most effective way to help students in their learning process. Wade and Reynolds (1989) argued that traditional study skills, such as notes taking, essay writing, and examinations do not work because it was a boring procedure in which the teacher advised the students using particular study methods which might interfere with what they already had done effectively. These study skills courses had not taken into account how the learner perceived the academic task (Norton and Crowley, 1995). Traditionally, research with regard to human learning has focused attention on the learner and how he could be characterised, what he did, and how

he functioned. The learner was the object of the study in which the researchers were interested in describing and observing him and the environment around him.

Marton and Svensson (1979), in their study, came out with two distinctly different perspectives in relation to research on student learning. One was observational “from the outside” and the other was experiential “from the inside.” In the observational perspective the researchers observed the learners’ characteristics and the learners’ study skills as well as observing his surrounding environment. Learning occurred either from a context or content; so in the experiential perspective, instead of describing the context in the researcher’s view, they encouraged the learners to describe the context and interpret it in their own. As the learners’ ability to build up meaning of the content increased, their learning experience will increase too (Marton and Svensson, 1979). The two perspectives were complementing each other. While the former was dominant, the latter was gaining increasing interest not only in relation to the study of student learning but more generally in research in the human sciences.

These two perspectives are called by Van Rossum and Schenk (1984) a first order perspective and a second order perspective, respectively. In the first order perspective, the emphasis is on the description of different aspects of reality. In this kind of research into students’ learning, the attention was focused on the learner as well as on certain aspects of the world around him. Application of this approach has taken the form of study skills advice to the learner. Marton and Svensson (1979) defined this perspective and concluded that:

We (researchers) thus observe the learner and describe him as we see him and we observe the learner's world and describe it as we see it (p.472).

The second order perspective has taken by researchers who turned their attention away from the approach of traditional study skills advice and concentrated on how the learner perceives reality. In terms of higher education, the second order perspective looked at how students perceived their academic environments, the demands of their courses, and their own learning approaches. The emphasis was on understanding rather than on explanation, and the perspective was that of a student and not of a researcher. The first and early example of research from the second order perspective, was the work of Marton and Säljö (1976a). They found that students had different ideas about the task of studying a text. Some students indicated that they conceived the task as being mainly reproductive and described how they directed their own learning, memorising the text itself. Other students reported that they took a more constructive view of the task. Taking a second order perspective could explain why researchers such as Cloete and Shochet (1986) have found that the differences between successful students is often not the study skills methods used, but whether the students were aware of why they were using a specific technique. Taking this point, Sherman (1991) stated that:

More effective learners tend to find tasks more completely and personally to adjust their study strategies to match their capabilities (internal) and the task (external). In contrast, less effective learners tend to accept a task as a 'given' and respond in a single way regardless of who assigned the task and the available 'tools' (p.38).

In their study of university students, Marton and Säljö (1976a) found that there were clear differences in the types of learning process that students engaged in when they were faced with difficulties in learning materials. They basically found two approaches, which were clearly distinguishable.

They called these approaches the “deep approach,” and the “surface approach.” These correspond to the different aspects of learning materials on which the learner focused. In the surface approach, the students directed their attention towards learning the text itself. This means that, they focused on extracting, memorising, and reproducing the facts. In this kind of approach the students do not really understand the text, and when they were asked they could not give a specific review of what they had learned. In the case of the deep approach, the students were directed towards the intentional content of the learning material, and they also could be directed toward the meaning of what they learned.

By means of interviews, Säljö (1979b) discovered that most of subjects gave the impression of being able to use both levels of processing. In other words, they understood phrase or sentence which indicated the surface approach and that which indicated the deep approach. But on closer observation, and when they were asked to differentiate between the surface approach and the deep approach, Säljö found that only 54 percent of these subjects could described the difference between the two study approaches. That means the subjects able to use both surface level and deep level of processing, but face difficulties when they ask to give the different between surface level and deep level of processing.

Marton and Svensson (1979) characterised some aspects of the differences between the various approaches. One of these approaches focussed on characterising the conceptions in the terms in which the learner interpreted the world around him, notably the content and context of learning as well as the act of learning itself.

The analysis of this study, which yields a description of the learner's conceptions, was, as a rule, based on fairly extensive interview data. In their analysis, they characterised differences in approaches to research into student learning in terms of six aspects: the perspective, description, conceptualisation, relations, comprehension, and use.

Based on group of discussions about learning, Van Rossum, Deijkers, and Hamer (1985) argued that, students use different learning conceptions, this indicates the existence of a communication gap between different groups of students, and a certain amount of consensus on the interpretation of such concepts within the groups themselves.

A recent development in second order perspective was a research methodology known as phenomenography. It is used widely in research on student learning. Marton (1994) identified it as:

The empirical study of the limited number of qualitatively different ways in which various phenomena in, an aspect of, the world around us are experienced, conceptualised, understood, perceived, and apprehended. These differing experiences, understandings are characterised in terms of "categories of descriptions," logically related to each other, and forming hierarchies in relation to given criteria (p.4424).

Marton (1981) coined the term “phenomenography” to refer to research that systematically focuses on the second-order perspective. He introduced this term not only for research that considered the perspective of the research subjects, but took it as a point of departure. By using this kind of research he revealed the qualitative different ways in which people experience and conceptualise various phenomena in the world around them. Phenomenography began from the basis that people think about the world in different ways. Marton (1988) said that phenomenography attempts to map the range of ways in which people think about a given phenomena. The main outcome of the analysis was a set of categories that were very precisely constituted, because what was being sought were the most distinctive characteristics of the range of experiences and how these related one to another. Therefore, what is mapped is the essential variation in ways of understanding the phenomena (Marton, 1988).

The first reported use of the phenomenographic method was a study carried out by Säljö (1979a). During an interview with subjects from varied educational backgrounds, and aged between 16 -70 years old, he asked them the following question: “What do you actually mean by learning?” When the answer to this question was analysed, five qualitatively different categories were distinguished:

1. The increase of the knowledge
2. Memorising
3. Acquisition of facts, procedures, etc. which can be retained
and/or utilised in practice
4. Abstraction of meaning

5. An interpretative process aimed at the understanding of reality

Since Säljö published his results, researchers such as Van Rossum and Schenk (1984), Martin and Ramsden (1987) and many more have replicated it. Van Rossum and Schenk (1984) analysed the first three (*the increasing of the knowledge, memorising, and acquisition of facts, procedure, etc. which can be retained and/or utilised in practice*) conceptions as a reproductive, which means little knowledge is memorised by learners. In the last two conceptions (*abstraction of meaning and an interpretative process aimed at the understanding of reality*), learning is seen as a constructive activity (Van Rossum and Schenk, 1984). According to Säljö, learning conceptions would probably have showed a relationship with the approaches of learning applied in a certain learning situation and thus also with levels of outcome.

Van Rossum *et al.* (1985) took the learning conception as their basis, because it seemed possible to use it after several studies about learning conceptions such as (Säljö, 1979a; Van Rossum and Schenk, 1984). In their study on first year students, Van Rossum *et al.* (1985) repeatedly found five distinguishable views on learning

1. Learning as acquiring knowledge
2. Learning as memorising
3. Learning as knowledge to be used at later date
4. Learning as abstraction of meaning

5. Learning as a process which helps us to interpret and understand reality

Learning was seen by some students as the acquisition of knowledge, while it was seen by others as memorising, or as application of acquired knowledge. They argued that the first three learning conceptions had a reproductive view on learning. These three were in contrast to the last two, and that because the first three conceptions reflect what can be called a surface reproductive view of learning and the last two reflect a deep constructive view of learning. In their view, learning was seen as the abstraction of meaning and a process that was interpreting and understanding reality, both of which shared a constructive view of learning (Van Rossum *et al.*, 1985)

Martin and Ramsden (1987) carried out a study, in which they compared two programs. These two programs were a study skills program and learn to learn programme that was designed to improve student learning. In the skill programme the students were given a lecture on a set of specific skills (e.g. note-taking, essay writing), handout and some form of practical exercise. Whereas learn to learn programme was very different although it covered the same basic skills. It consisted of structured group discussions, the purpose of which was to take account of students' existing approaches to learning and the current content of their courses. Emphasis was put on the relationship between students' approaches and lecturers' expectations. A crucial difference between the two programmes was that the study skill programme focussed on skill separately from the curriculum, whereas the learning to learn programme attempted to directly link the sessions with relevant content in the curriculum. The study attempted to compare the two programs by examining the change in students' conceptions of learning as defined by Säljö (1979a)

and looking at links with academic performance. Their results showed that there was a definite change towards higher learning conceptions at the end of the learn to learn program, but not for the study skills program, that is because Norton said:

The study skills program focused on skill separately from the curriculum, whereas the learning to learn program attempted directly to link the sessions with relevant content in their curriculum (Norton, 1995, p.310).

In a more recent study of the same phenomena, Marton, Dall'Alba, and Beaty (1993) found six conceptions of learning (p. 10). The first five conceptions were the same as those identified by Säljö (1979a) (p. 7-8). These five conceptions that identified by Marton *et al.* (1993) were differed from that of Säljö's in that, they tried to characterise the conceptions in more detail. They made distinctions between expressions that reflected the 'what' aspect of learning and those that reflected its 'how' aspect (Marton *et al.*, 1993). They also slightly changed the labels that referred to the conceptions. Marton *et al.* (1993), in addition to the five conceptions, also came out with a sixth one which was new and different. The six conceptions that were identified by Marton *et al.* (1993) were:

1. Increasing one's knowledge
2. Memorising and reproducing
3. Applying
4. Understanding
5. Seeing something in a different way
6. Changing as a person

By looking at Marton *et al.* (1993) study, not only that there was a developmental trend to more sophisticated conceptions over the six year period (the study took six years), but also that there was a sixth conception: that of the learner changing as a person.

Norton and Crowley (1995) took the five learning conceptions that described by Van Rossum *et al.* (1985) (p. 8) as their primary focus, and based their work on that of Säljö (1979a) (p. 7-8). The first three conceptions (*learning as acquisition of knowledge, learning as memorising knowledge, learning as knowledge to be used at a later date*) were described in the study as 'naive' which correspond to that of Van Rossum and Schenk (1984) as the 'reproductive label'. The last two conceptions (*learning as the abstraction of meaning, learning as a process which helps us to interpret and understand reality*) were described as 'sophisticated' and correspond to that of Van Rossum and Schenk as 'constructive'. The study of Marton *et al.* (1993) was different from the Norton and Crowley's study, and most other studies, in the fact that it covered a relatively long time period.

Wan Zah Wan Ali (1997) carried out such a study exploring the conceptions of learning in the context of higher education in Malaysia. The study involved 30 second-year Bachelor of Science in Education students from Universiti Malaya, Kuala Lumpur. An in-depth interview was conducted with every subject, individually. The findings indicated that there were similarities and differences in the students' conceptions of learning. The subjects had similar ideas regarding the general characterisation of learning. Learning to them meant acquiring knowledge, skills, or speaking capability. They became able to, or more able to, do, know, and think after going through the

learning experience. Regarding the differences of the subjects' conceptions of learning, this study identified five different qualitative learning conceptions:

1. Learning is to gain or increase knowledge
2. Learning is to memorise and reproduce knowledge
3. Learning is to apply the acquired knowledge
4. Learning is to look into meaning of learned materials
5. Learning is to affect change in the individual

Wan Zah Wan Ali, found that all the subjects in the research conceptualised learning as a changing process. This change occurred in them as a transition from a not knowing stage to a knowing one. In the process of knowing the students were divided into two phases of the acquisition and application of learning. This cannot succeed unless the learners have the ability to learn. And this is because:

“ Learning is a process that is planned by the individual involved in the learning (Wan Zah Wan Ali, 1997, p19).”

By comparing Wan Zah Wan Ali's work with that of Säljö (1979a), it is clear that, the first four conceptions (p. 11) were isomorphic to those identified by Säljö. These four conceptions and the fifth one were similar to those identified by Marton *et al.* (1993) (p. 10). She described the fifth learning conception as:

“ A continuous process toward the development of a new person (Wan Zah Wan Ali, 1997,p.17).”

This was a process by which the person could change the way of understanding and interpret the phenomena in and about his environment.

In her study she argued that in the first three conceptions knowledge was interpreted in a similar way. This means that:

“The knowledge is an object which exist out there and is always available to be picked up and stored (Wan Zah Wan Ali, 1997, p.16).”

In the last two categories, a new element emerged. That means, learning refers to an active process that involves looking into the learning materials and the meaning of the knowledge. She argued that knowledge existed as the learned materials.

Statement of the Problem

Recently, as mentioned above, there has been an open attitude toward studies that concern student learning. Many researchers have done their research on the conceptions of learning with the aim of wanting to know how learners interpret and understanding learning. The pioneer study in this field was the study that done by Säljö (1979a) and which is mentioned above. Since Säljö published his results, several research groups, such as Van Rossum and Schenk (1984), Marton *et al.* (1993), and Wan Zah Wan Ali (1997) had replicated it. Everyone has their own interpretation or understanding of the phenomena “learning.” They might identify the same or different meanings or conceptions of learning.

Basically, the present study declares that learning should be studied from a second order perspective. Traditionally research with regard to human learning is done from a first-order perspective. This means that the emphasis is on the description of different

aspects of reality. In this kind of research into the learning behaviour of students the attention is basically turned to the learner (the learner's characteristics, the learner's study skills) and to certain aspects of his world (his study environment). With regard to research into human learning a new approach has developed, which is not directed so much to reality as it is, but more so to how people view it. Marton (1981) called the latter a second-order perspective. In this type of research one tries to take stock of, and secondly to systematise, the various ways in which people view or experience important aspects of the world around them. So this research was done from the second-order perspective so as to know how those groups of students conceptualise and understand learning phenomena, and how they interpreting it. Research on student learning has been developed successfully from the time that Säljö published his work, and has been followed by several studies in the same area, until the present.

According to what was discussed in the earlier studies, and as there was no research done in the same area in Sudan or to any Sudanese students all over the world, it has become very interesting to study this phenomena among Sudanese students. The researcher done this study to know are those Sudanese students will achieve quality learning or not.

Aim of the Study

The main purpose of this study is to explore the conceptions of learning among Sudanese students in Universiti Putra Malaysia.