Faculty of Cognitive Sciences and Human Development

INVESTIGATING STUDENTS' PHYSIOLOGICAL LEARNING STYLES OF STUDYING LITERATURE IN USING INTERACTIVE CD-ROM AMONG FORM FOUR STUDENTS IN SMK LUNDU

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by

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A project entitled **Investigating Students' Physiological Learning Styles of Studying Literature in Using Interactive CD-ROM among Form Four Students in SMK LUNDU** was written by Rosnani binti Saini and submitted to the Faculty of Cognitive Sciences and Human Development in fulfilment of the requirements for the degree of Bachelor of Education with Honours (English as a Second Language)

It is hereby confirmed that the student has done all the necessary amendments of the project for acceptance.

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LIST OF ABBREVIATIONS

ICT	Information and Communication Technology
MOE	Ministry of Education
ICDR	Interactive CD ROM
MI	Multiple Intelligences
L2	Second Language Learners
ESL	English Second Language Learners

ABSTRACT

Investigating Students' Physiological Learning Style of Studying Literature in using Interactive CD-ROM among Form Four Students in SMK Lundu

Rosnani binti Saini

This study aims to identify the students' Physiological Learning Style Preferences among form four students in SMK Lundu in learning literature using Interactive CD-ROM (ICDR). It is also to find out whether there are any similarities or differences in learning literature using ICDR and without using ICDR. There were (n=253) two hundred and fifty-two students (151 Female, 102 males) of form four students from eight classes. The data was obtained through self-reporting questionnaire which was adapted from Reid's (1987) perceptual learning style Self-Reporting Questionnaire. Descriptive statistics in the form of tables were used to explain the data collected from the questionnaire. A pilot test was first carried out for the instrument to determine the validity and the reliability of the questionnaire. The findings revealed that there were not many differences between learning literature using ICDR and without ICDR which reflected the students' physiological learning style. The findings showed that the audio learning style preference and visual learning style preference both were minor learning style preference among form four students in learning literature using ICDR. In this study, recommendations are made to the future researchers to broaden their studies.

ABSTRAK

Mengkaji Gaya Pembelajaran Pelajar Secara Fisiologi dalam Mempelajari Kesusateraan Bahasa Inggeris dengan Menggunakan CD Interaktif di kalangan Pelajar-pelajar Tingkatan Empat di SMK Lundu

Rosnani binti Saini

Kajian ini bertujuan untuk menentukan gaya pembelajaran secara fisiologi di kalangan para pelajar tingkatan empat di SMK Lundu dalam mempelajari kesusasteraan bahasa Inggeris dengan menggunakan CD Interaktif (ICDR). Kajian ini juga meninjau sama ada persamaan dan juga perbezaan dalam mempelajari kesusasteraan bahasa Inggeris dengan menggunakan CD Interaktif dan tanpa CD Interaktif. Kajian ini dijalankan terhadap dua ratus dan lima puluh tiga orang (n=253) pelajar (151 pelajar perempuan, 102 pelajar lelaki) dalam kalangan para pelajar tingkatan empat daripada lapan buah kelas. Data-data diperolehi melalui soal selidik yang telah diadaptasi daripada "Reid PLSP Self-Reporting Questionnaire (1987)". 'Pilot Test' telah digunakan untuk menentukan kesahihan dan kepercayaan borang soal selidik. Statistik deskriptif dalam bentuk jadual digunakan untuk menjelaskan hasil kajian daripada borang soal selidik. Hasil kajian menunjukkan tidak banyak perbezaaan di antara belajar kesusasteraan bahasa Inggeris menggunakan CD Interaktif dan tanpa CD Interaktif yang mengambarkan cara pembelajaran para pelajar dari segi fisiologi. Dapatan hasil kajian juga menunjukkan kedua-dua cara pembelajaran secara mendengar dan cara pembelajaran secara melihat adalah gaya pembelajaran secara minoriti di kalangan para pelajar tingkatan empat yang belajar menggunakan CD Interaktif. Dalam kajian ini, turut dimuatkan cadangan untuk para pengkaji akan datang bagi meluaskan skop kajian.

CHAPTER I

INTRODUCTION

1.0   Introduction

Since the early 1970's, the Malaysian government has introduced various initiatives to facilitate the greater adoption of Information and Communication Technology (ICT) to improve capabilities in every field including education (Salbiah Ismail, 2003). She further elaborates that, Malaysia has a long term vision; referred to as "Vision 2020" and this vision calls for sustained productivity driven growth, which will be achieved only with a technologically literate, critically thinking workforce as a preparation to fully participate in the global economy. She also explains that, in order to support "Vision 2020" the education system has to be transformed. Transforming the educational system will involve varying the culture and practices of Malaysia's primary and secondary schools, moving away from memory based learning to an education that stimulates thinking, creativity, caters to individual abilities and learning styles (Chan, 2004).

ICT has made great impact both on our society as well as in our daily lives. It is not surprising that increasing interest, attention and investment are made in the use of ICT in the education to the world over. Yuen et al., (2003) mention that several master plans on ICT in education have tabled in many countries, an example from Malaysia is the Smart School. Under Smart School's project, there are 1494 titles of courseware (teaching and learning materials) have been produced for the usage of schools (Salbiah Ismail, 2003). Based on her reports, the plan begins with four subjects: Bahasa Melayu, English, Science and Mathematics. Apart from that, the courseware itself is also developed for science subjects such as Physics, Biology, Chemistry and Additional Mathematics. Other than that, there is Interactive CD ROM [ICDR] as teaching courseware developed by the Educational Technology Division, Ministry of Education Malaysia (Asia Pacific Educational Technology Convention, 2004).

The Ministry of Education sees ICT as means, not an end in itself. Technology is also not seen as simply another subject in the curriculum, suited primarily for teaching students to use tools as the way to improve learning (Abdul Rahman Daud, 1999). Lachs (2000) states that although ICT is not a subject on its own; the knowledge, understanding, thinking skills and other skills taught as ICT are expected to be applied and developed across the curriculum. For instance, the use of ICDR in Malaysian classroom as teaching materials creates new classroom setting which also contributes to the students' thinking and their preferences in learning.

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Therefore, it would mean ICT is crucial to support the teaching and learning process in Malaysian schools.

1.1   Background of the Study

The development of education technology in Malaysia started in the late 1940's that can be referred to Pre and Post Independence. In that period, the instruction focus on using visual and audio-visual (Abdul Rahman Daud, 1999).The medium of instruction started with the use of visual materials such as pictures, wall charts, maps, globes, realia and models to be brought in the classroom . At the same time, blackboard, flannel board, bulletin board and magnetic board were mainly used for the delivery of classroom instructions while slates and printed materials were used in learning activities. Later, audio-visual equipment like slide projector, filmstrip projector and motion film projector were used in national schools. Then, another development in 1966 emphasized the integration to the use of audio-visual equipment based on educational technology system. Schools radio broadcast was launched to schools by the Ministry of Information via Radio Televisyen Malaysia (RTM) and Broadcasting with the cooperation of the Ministry of Education (MOE).

However, in millennium the use of ICT has been more emphasized due to its need. The former Minister of Education, Tan Sri Dato' Seri Musa bin Mohamad said, "We want to provide our children with the best education, and we realize that today

to produce world-class education there has to be an involvement of ICT along the way" (Salbiah Ismail, 2003, p2.).

Therefore, a circular dated 30 September 2003 by MOE had directed teachers to the practice of using computers in schools for the purpose of learning with the aim to diversity teaching and learning methods. MOE has carried out the plan in stages in order to implement the ideas of using computer in the classroom became reality. Therefore, MOE has introduced various initiatives to ensure the smoothness of this plan in which all schools have been provided with laptops, LCD projectors, screen, television set was optional for those schools which not received the LCD equipments, uninterruptible power supply unit and Interactive CD-ROM for teaching purposes. This plan is integrated with Mathematics and Science subjects that need to be taught in English.

The 2003 schooling session saw the execution of computer-assisted learning for students who were in Primary one, Form One, and Lower Six. The commencement of the 2004 schooling session saw the execution of the second phase which involves students in Primary Two, Form Two and Upper Six. In the following year, 2005, the third phase which involves the Primary Three and Form Three classes. The 2006 schooling session was seen to be the forth phase in which involves the students in Primary Four and Form Four.

Based on the explanation above, basically, it supports the study that visual and audio is fundamental approach to present the teaching materials. It develops until to the use of ICDR in the classroom teaching. Based on the informal feedback from the teachers who use the ICDR, they found that the software is a useful tool for teaching; attract students' interest and makes learning to be more structured. Abdul Rahman Daud (1999) reports that the use of multimedia in classroom learning will direct the students' learning style and at the same time guided them to process information. Thus, it triggers the interest for the researcher to do the research on the students' preferences in learning using ICDR which gives the result of their learning styles.

1.2   Statement of Problem

MOE announced a significant change in English syllabus for Malaysian schools (Pusat Perkembangan Kurikulum, 2000). Thus, in 1999, the change in policy was directed at the teaching of literature to all students in secondary schools as literature is now to be incorporated as part of the secondary school English language syllabus. The main reason is that literature represents the use of authentic materials in language instruction (Carter & Long, 1991).

However, the second language learners view literature as a tough component to be comprehended. According to McKay (1982, cited in Subramaniam and

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Vethamani, 2003) states that, the linguistic complexities of literary texts may constitute an undefeatable obstacles for many second language (L2) learners. She also stresses that reading a text itself too difficult to understand which it can be frustrated for students that indirectly lead to the negative effect in learning literature. To support McKay's statement, "students studying literature can often have difficulties in understanding the characters, literary devices and antiquated dialogue sufficiently when simply following written text" (Subramaniam and Vethamani, 2003, p.108). As such, the use of visual and audio on the ICDR in the classroom setting will provide additional information and interest where it is not provided in the text when learning literature. It will assist the students to comprehend the text in order to bring the literature to life (Chin, 2004).

Therefore, learning literature via ICDR can be viewed as a paradigm shift for the students to learn it successfully. Students are identified to learn more effectively when they learn through their own initiative and construct their own meaning towards a particular concept (Pamela, 2001). The students' performances, interest and motivation will enhance when their learning style matches the learning which also incorporates in the instructional environment (Dunn, 1987). Lachs (2000) stresses that if learning is to be successful, effort must be taken to match the teaching style that can be focused on the usage of ICDR with the students' learning styles.

1.3 Objectives of the study

In general, this research aims to identify whether the use of ICDR cater the students learning styles based on physiological styles in studying literature. Specifically, this research aims to:

i)   find out the form four students' learning preferences which contributes to learning styles preference in learning literature using ICDR.

ii)   find out the form four students' learning preferences which contributes to learning style preference in learning literature without using ICDR

iii)   identify whether there are any similarities or differences of form four students learn literature using the ICDR and without ICDR.

1.4   Research Questions

The following questions will be used as the focus of this study.

i) What are the students' preferences in learning literature using the ICDR?

ii) What are the students' preferences in leaning literature without the ICDR?

iii) Are there any similarities or differences between the form four students' preferred learning style using the ICDR and without the ICDR?

1.5 Significance of the study

The importance of this study is to identify the students' preferred learning modalities which will be reflected as their learning style in studying literature based on their feedback to the ICDR as a mediator.

The result of the study will help the teachers to determine the materials used for effective teaching and learning process. Moreover, this research will help the teachers aware of the students' need in learning which is referring to the students' preferences in learning using ICDR.

The information regarding students' preferences towards specific modalities can also serve as guidance to teachers in designing the learning experiences in order to match the students' preferred learning style preferences. For instance, the teacher can select appropriate activities in the ICDR to cater the students' preferred learning style preferences in studying literature.

1.6   Operational Definition

Students' preferences

According to Hills (2003) explains that, individual preferences or student preferences as he or she has desires towards something or with others than another in the same scales. For purpose of the study, it refers to the students' potential in learning literature as feedback to the ICDR when learning is occurred in the classroom.

Interactive CD-ROM

The term "interactive" is used in the context of software or language program that being applied to CD-ROM with the emergence of multimedia applications for learning purposes (Felix, 1998). In this research, it refers to Interactive CD-ROM as supplementary materials in teaching.

Physiological Learning Styles

According to Dun & Dun (1999) explain that physiological or physical learning styles can be determined as consistent ways to facilitate learning through the use of the senses or environmental stimuli. It also known perceptual learning styles and categorized as auditory, visual, tactile, group, individual and kinesthetic. For purpose

of the study, the researcher will only focus on audio and visual which reveals the students' learning styles using ICDR.

Studying Literature

The inclusion of literature in the language classroom is also reflected in the Malaysian KBSM English Language Syllabus (2000) where the addition of literature component is clearly spelled out in its objectives. Therefore, studying literature is a must for the students in Malaysian schools system.

1.7   Limitation of the Research

The research has some limitations as it will only base on the physiological learning styles that refer to two modalities, namely, visual and auditory. The findings only restricted to students' learning preferences based on those two modalities.

As the study is based on learning style preferences learning literature using ICDR, the researcher faced the difficulty of limited access to resources such as articles and journals on studies in the study of literature particularly those specifying on learning styles preferences in the local context. In addition to that, there are also limited articles mentioning on the learning literature using ICDR where it is

considered new issues to be discussed compared to learning styles preferences in ordinary classroom setting. Other than that, the sample population also limited where it is restricted to form four students in SMK Lundu. Therefore, the findings cannot be generalized to all students and all Malaysian schools.

Besides that, it will not focusing on other variables such as students' achievement in the subject, the effectiveness of using interactive CD ROM and also types of schools (urban or rural).

1.8   Summary

This chapter has discussed the introduction and background of the study that gives an overview to the development of ICT and the use of ICDR in Malaysian Schools. Apart from that, it also highlights the research objectives and research questions as guidelines to collect data before analyzing it. In the next chapter, the researcher describes more on learning styles that related to the study and also literature review from past researchers done by other researchers.

CHAPTER II

LITERATURE REVIEW

2.0   Introduction

This chapter presents the literature reviews that are related to the study. It also introduces the different dimension of learning styles related to the study. Some related studies to the learning styles are also included based on previous works by other researchers.

2.1   Individual Learning Styles

It is obvious that people learn in different ways due to individual differences (Reid, 1987) which also applies in language learning. There are several definitions of individual learning styles. Tan et al., (2003) mention that learning styles appear to be biological and socialized differences that influence classroom learning in particular or lifelong learning in general.