



Faculty of Cognitive Sciences and Human Development

**THE RELATIONSHIP BETWEEN ACADEMIC MOTIVATION AND
STUDENTS' ONLINE INFORMATION RETENTION**

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Grade: A-

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Final Year Project Report

Masters

PhD

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**THE RELATIONSHIP BETWEEN ACADEMIC MOTIVATION AND STUDENTS'
ONLINE INFORMATION RETENTION**

NURHANIM ATHIRAH BINTI MUDA

This project is submitted
in partial fulfilment of the requirements for a
Bachelor of Psychology with Honours

Faculty of Cognitive Sciences and Human Development
UNIVERSITI MALAYSIA SARAWAK
(2022)

The project entitled '**The Relationship Between Academic Motivation and Students' Online Information Retention**' was prepared by **Nurhanim Athirah binti Muda (71112)** and submitted to the Faculty of Cognitive Sciences and Human Development in partial fulfillment of the requirements for a Bachelor of Psychology with Honours

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ABSTRACT

This study aimed to investigate the relationship between motivation and online learning specifically the relationship between academic motivation and students' online information retention due to the limited number of studies exploring the relationship between these two variables despite knowing the importance of motivation in online learning especially now that online learning has become a growing need in light of the Covid-19 pandemic. The study used a quantitative data collection approach with a correlational study design with a sample of 21 UNIMAS Psychology students collected using quota sampling. All data obtained was analyzed using SPSS software. Findings from this study showed that there was a weak, positive correlation between academic motivation and students' online information retention which was statistically significant despite the small sample size which indicates that there is a relationship between motivation and online learning.

Keywords: Online learning, academic motivation, information retention.

ABSTRAK

Kajian ini bertujuan untuk mengkaji hubungan antara motivasi dan pembelajaran atas talian atau secara khususnya, hubungan antara motivasi akademik dan pengekaln maklumat atas talian oleh pelajar disebabkan oleh kurangnya kajian yang meneroka hubungan antara dua pembolehubah ini walau pada hakikat, mengetahui kepentingan motivasi dalam pembelajaran atas talian terutamanya sejak pembelajaran atas talian ini menjadi satu keperluan disebabkan oleh pandemik Covid-19 yang melanda. Kajian ini merupakan kajian korelasi yang menggunakan kaedah pengumpulan data kuantitatif di mana 21 pelajar Psikologi UNIMAS digunakan sebagai sampel yang diperolehi menggunakan kaedah pengumpulan sampel kuota. Semua data yang diperolehi dianalisa menggunakan perisian SPSS. Hasil yang diperolehi daripada kajian menunjukkan terdapat hubungan yang lemah dan positif serta signifikan antara motivasi akademik dan pengekaln maklumat atas talian oleh pelajar walaupun saiz sampel yang digunakan adalah kecil yang mana menunjukkan bahawa terdapat hubungan antara motivasi dan pembelajaran atas talian.

Kata kunci: Pembelajaran atas talian, motivasi akademik, pengekaln maklumat atas talian.

CHAPTER ONE

1.0 Introduction

Online learning is fast becoming a key instrument in today's education. In recent years, online education has been on a steady rise. National Center for Educational Statistics (2014, as cited in Zeglen & Rosendale, 2018) reported that by the year of 2022, overall higher education enrolment at degree-granting institutions has an estimation of increased growth projection by 13.9% which indicates that online education programmes will rise constantly. However, online learning reaches its peak when the Covid-19 pandemic attacked the world in 2020 and has since become the main platform of education for the whole world.

UNESCO's observed that 91.3% of the world's student population are out of the classroom due to the schools closing because of Covid-19 and Malaysia specifically reported that 8 million students has been affected by this school closures (Azahar, 2020). Counter measurement for this issue resulted in online classes being implemented in order to ensure continuous learning. As a result, students' motivation, self-regulation, and positive learning dispositions have become very important in ensuring the success of learning in such online settings. Moore (1989, as cited in Hartnett, 2016) also stated that distance learners are long associated with the characteristics of independence, intrinsic motivation and self-direction. Here, it is clear that motivation plays an important role in online learning.

1.1 Background of Study

The success of learning is found to be dependent on the motivation of the learners whether or not they are motivated (Filgona, Sakiyo, Gwany & Okoronka, 2020). Moreover, Hartnett (2016) stated that the quality of work produced, the level of achievement obtained, shown engagement level and persisting in a course is determined by a learner's motivation. Therefore, motivation can be considered one of the most important factor or element in learning. "Learning is inherently hard work; it is pushing the brain to its limits, and thus can only happen with motivation" (Filgona et al., 2020, p. 16). This further implies that motivational aspect should be taken into consideration in determining success of learning.

It is also stated by Moore (1989, as cited in Hartnett, 2016) that distance learners are long associated with the characteristics of independence, intrinsic motivation and self-direction which is supported by Shroff, Vogel, Coombes and Lee (2007, as cited in Hartnett, 2016) where it is found that one of the important characteristic of online learners are intrinsic motivation. Hence, motivation proves to be an essential role in online learning. However, enough attention is not received despite its importance in learning consequences especially in online learning (Jones & Issraof, 2005, Miltiadou & Savenye, 2003 as cited in Chen & Jang, 2010) and that studies regarding motivation in online learning contexts are limited (Bekele, 2010, as cited in Hartnett, 2016).

1.2 Problem Statement

According to a survey by Project ID (2020), it is found that 55% of students in Malaysia lack motivation when learning online which could lead to a problem in

students' learning. This is because, as previously mentioned, motivation now plays one of the critical roles in ensuring the success of learning in an online setting. However, motivation did not receive adequate attention in online learning in spite of its importance in learning consequences (Jones & Issraof, 2005, Miltiadou & Savenye, 2003 as cited in Chen & Jang, 2010) which encourages the need to conduct a study investigating the motivational aspects in online learning which has become a growing need in light of the pandemic. Besides, it is also found that there is an even more limited number of studies exploring the relationship between motivation and learning especially in online settings in Malaysia despite how motivational aspects influence learning. Therefore, this study will investigate the relationship between motivation and online learning to partly fills this research gap.

1.3 Research Objectives

1.3.1 General Objective

The general objective of this study will be, to investigate the relationship between motivation and online learning.

1.3.2 Specific Objective

The specific objective of this study will be, to investigate the relationship between academic motivation and students' online information retention.

1.4 Research Questions

This research seeks to address the following research question:

1. Is there a relationship between academic motivation and students' online information retention?

1.5 Research Hypothesis

The hypothesis that will be tested is as follow:

1. There is a relationship between academic motivation and students' online information retention.

1.6 Conceptual Framework

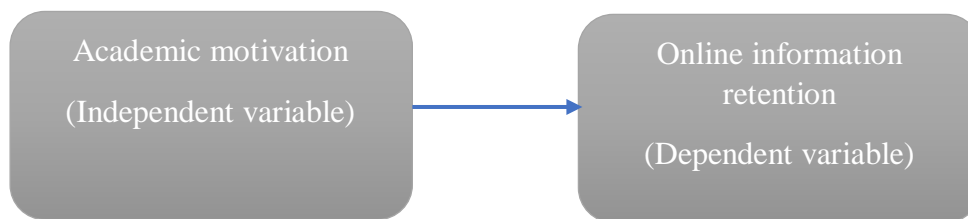


Figure 1. Conceptual framework

1.7 Significance of Study

This study will provide an opportunity to advance the understanding of the relationship between motivational aspect and online learning where the insights regarding relationship between academic motivation and students' online information retention specifically will be provided. Besides, this study also aims to contribute to the limited body of literature regarding the relationship between motivation and online learning. Moreover, the findings of this study should also provide benefits for the instructors and online course designers as they will realize the importance of motivation

in online learning and are able to design online courses that will accommodate the motivational aspects of students so that online learning can be enhanced. Furthermore, this study should also spark new avenue of research regarding motivational aspects in online learning for the psychologists and other researchers.

1.8 Definition of Terms

1.8.1 Academic motivation

Conceptual Definition: The behaviors that are caused by things that are in some way related to academic functioning and success such as how much effort is put into a work and how effectively a work is regulated (Usher & Morris, 2012).

Operational Definition: The score of the Academic Motivation Scale-College version (AMS-C 28) obtained from each participants.

1.8.2 Online information retention

Conceptual Definition: Online information that is stored in long-term memory in a way that can be readily retrieved (Bennett & Rebello, 2012).

Operational Definition: The total score for the MCQ test obtained from each participants which is used as the measurement for online information retention.

1.9 Summary

To summarize, this chapter discussed the background of the research where this study is encouraged by the lack of research regarding motivational aspects in online

learning despite its importance especially now that there is a growing rate of online learning implementation due to the pandemic as well as by the limited number of studies exploring the relationship between motivation and online learning. Hence, this study will investigate the relationship between academic motivation and information retention in an online setting. Besides, the objective, research question and hypothesis are also addressed in this chapter. The conceptual framework is presented and the significance of this study along with the operational definitions which explained the key concepts based on the context of this study are also described.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter will describe the theories that the current study is based on as well as some past findings related to the topic of interest. It also aims to inform about the theories and arguments used to formulate the research procedures.

2.1 Memory and Retention

Cherry (2020) described memory as “the processes that are used to acquire, store, retain, and later retrieve information” (para. 1) while McLeod (2013) defined it as “the term given to the structures and processes involved in the storage and subsequent retrieval of information” (para. 1). From the definition, memory can be considered as the ability to encode, store, retain and recall information. According to the psychologists, three aspects of information processing are covered by the term 1) memory (McLeod, 2013) which are encoding where information enters the system and is processed as well as changed into a form that can accommodate the memory system, 2) storage where information is stored and 3) retrieval where information is retrieved from the storage (short-term and long-term memory) which also involves retention as Bennett and Rebello (2012) defined information retention as “having the information stored in long-term memory in such a way that it can be readily retrieved” (para. 1). Although there are many theories describing how memory works such as the levels of processing theory, working memory model, Miller’s magic number and more, the theoretical lens through which this study is informed is the multi-store model of memory developed by Atkinson and Shiffrin (1968)

where this model will underpin the process behind the information retention of the participants in this study.

2.1.1 Multi-Store Model of Memory

The model proposed that memory storage consists of three different storages which are the sensory store, short-term store and a long-term store (Sharma, n.d.). According to the model, information will be picked up from the senses such as olfactory receptors in the nose smelling coffee, hearing a piece of music or observing a picture with the eyes, and enters the memory as sensory information and then will be held in the sensory memory store (Psychologist World, n.d.).

Most of the sensory information is also stated to decay and forgotten after a short period of time (Psychologist World, n.d.) as to prevent from getting overwhelmed because the sensory memory store consists of a huge amount of data describing the surroundings. However, when sensory information captures the attention of the mind and leads to the contemplation of this information which is known as rehearsal, it will be transferred to the short-term memory store (Psychologist World, n.d.).

Short-term store is limited in its capacity, therefore, information rehearsal in the short-term memory such as having attention focused on it, repeating information over and over again as well as recalling needs to be done in order to remember the information longer and promotes it to long-term memory store (Psychologist World, n.d.). This process aids the retention of information. Furthermore, Sharma (n.d.) then described that stored information in the long-term store will be retrieved and transferred back to the short-term store when it is needed and ordered by the brain which is known

as memory retrieval. The information that is successfully retrieved from the long-term memory is what we call information retention and this is how the study underpin the process behind the information retention of the participants in this study.

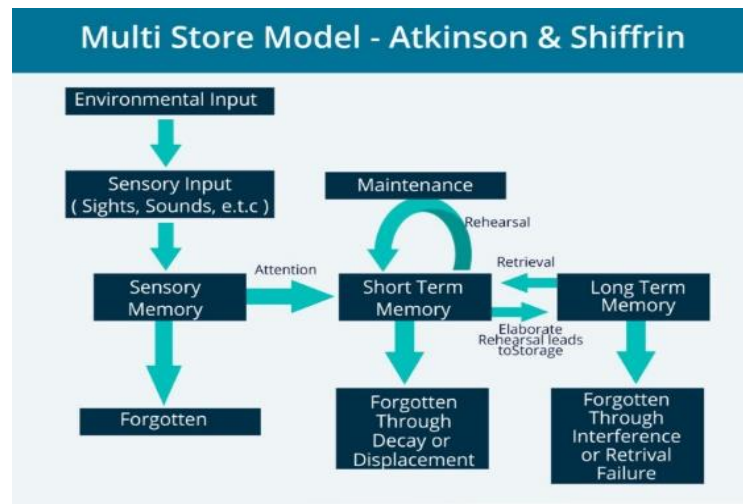


Figure 2. Multi-store model (Research, 2021).

2.2 Motivation

Hurst (n.d.) defines motivation as “a state that energizes, directs and sustains behaviour” (para. 2). Activity is required and goals are involved in motivation where goals provide the direction of action, while action involves effort which is the effort in sustaining an activity for a long period of time (Hurst, n.d.). Motivation can be either intrinsic or extrinsic. Intrinsic motivation is a drive that comes within the self such as the desire to improve in a certain subject and is not due to any anticipated reward or outside pressure such as parent’s expectations (Psychology Today, n.d.). Psychology Today (n.d.) further stated that “intrinsic motivation tends to push people more forcefully, and the accomplishments are more fulfilling” (para. 3). Intrinsic motivation is also integrated into identity and is a continuous source of motivation, hence, is considered a powerful type of motivation (Psychology Today, n.d.). Meanwhile, extrinsic motivation is a drive that is inspired by outside forces such as rewards or other people

(Psychology Today, n.d.). According to Psychology Today (n.d.), motivation can be increased by extrinsic motivation in the short term, however, it could wear down over time and may even backfire.

2.3 Online Learning

Stem (n.d.) defined online learning or commonly referred to as e-learning as “education that takes place over the internet” (p. 1) and is one of the type of distance learning which is a term for any learning that is not done traditionally in a classroom but takes place across distance. Online learning has been continuously expanding over the years especially since the world was facing the Covid-19 pandemic for the last 2 years as online learning is implemented to accommodate students’ learning as they were in a situation where they were not able to leave home. Although some schools were gradually reopened and students were seeing to return to the classroom (Unicef, 2020), majority of schools and universities were still conducting classes through online platform which implies that online learning is still very much relevant nowadays.

Online learning evidently provides both advantages and disadvantages. With online learning, students are able to gain unlimited access to class materials and are able to review them any time before exams (Butler, 2010, as cited in Lathrop, 2011). Consequently, this has also granted scheduling flexibility (Butler, 2010, as cited in Lathrop, 2011) to students in learning as they are able to schedule their learning accordingly and starts learning at a time that work best for them which in turn, will lead students to a more successful learning. Besides, online learning is also convenient as students are able to attend classes or learn anywhere and at any time they prefer.