

PERCEIVED IMPORTANCE AND CONFIDENCE IN  
ONLINE LEARNING COMPETENCIES AMONG  
SOMALI UNDERGRADUATE STUDENTS

BY

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the degree of Master of Education  
(Curriculum and Instruction)

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## ABSTRACT

This study investigated Somali university students' perceptions of the importance of online learning and their confidence in four of its aspects (i.e., online learner attributes, time management, communication, and technical competence). It also aimed to examine if demographic factors make any difference in their perceptions of importance and confidence in the four online learning readiness competencies. An ex post facto, cross-sectional survey was conducted with 320 undergraduates as the respondents. The instrument used is the Students Readiness for Online Learning (SROL) instrument consisting of four dimensions, online student attributes, time management, technical, and communication competencies developed by Martin et al. (2020). Descriptive analysis was performed for the first two questions, which measured students' perceptions of importance and confidence in online readiness competencies. Inferential statistics, including independent t-test, one-way ANOVA, and Pearson's product-moment correlation coefficient, were utilized to analyze data collected in response to the other two research questions. The result of the study reveals that technical and communication competencies were rated high for importance compared to online learner attributes and time management competencies. Thus, Somali university students were more confident in technical competence than online learner attributes, time management, and communication competencies. In addition, there was no significant difference based on gender, but there was a significant difference based on the field of study on their readiness for online learning. Based on the Pearson correlations, there was also a low positive relationship between age and Somali university students' readiness. Administrators can use the findings to aid in developing online student training programs. Learners are expected to consider their attributes as online students, as well as their time management, communication, and technological competencies.

## ملخص البحث

تهدف هذه الدراسة إلى فحص مدى استعداد طلاب الجامعات الصومالية للتعلم عبر الإنترنت بناء على إدراك الطلاب للأهمية والثقة في أربع كفاءات للاستعداد عبر الإنترنت: (سمات المتعلم عبر الإنترنت، وإدارة الوقت، والاتصالات، والكفاءة التقنية)، بالإضافة إلى وجود فرق كبير بين استعداد الطلاب وفقا لمعلوماتهم الديموغرافية. استخدم هذا البحث الحالي أداة طورها (Martin et al., 2020). استخدم هذا البحث الكمي نهجا بعد الأمر الواقع مع 320 طالبا جامعيًا كمستجيبين. تم جمع البيانات في مستندات Google عبر الإنترنت. وكانت الدراسة قد حققت أربعة أهداف. تم استخدام التحليل الوصفي للسؤالين الأولين، والذي يقيس إدراك الطلاب للأهمية والثقة في كفاءات الاستعداد عبر الإنترنت. تم استخدام الإحصاءات الاستدلالية، بما في ذلك اختبار t المستقل، وارتباط ANOVA أحادي الاتجاه ومعامل الارتباط بيرسون، لتحليل البيانات التي تم جمعها استجابة لسؤال البحث الآخرين. وكشفت نتائج الدراسة أن الكفاءات التقنية والاتصالية تم تصنيفها بدرجة عالية من حيث الأهمية مقارنة بسمات المتعلم عبر الإنترنت وكفاءات إدارة الوقت. وكان طلاب الجامعات الصومالية واثقين من الكفاءة التقنية مقارنة بسمات المتعلمين عبر الإنترنت وإدارة الوقت وكفاءات الاتصال. بالإضافة إلى ذلك، لا يوجد فرق كبير على أساس الجنس، ولكن كان هناك فرق كبير بناء على مجال الدراسة على استعدادهم للتعلم عبر الإنترنت. كانت هناك علاقة إيجابية منخفضة بين العمر واستعداد طلاب الجامعات الصومالية لارتباطات بيرسون. يمكن للمسؤولين استخدام النتائج للمساعدة في تطوير برامج تدريب الطلاب عبر الإنترنت. من المتوقع أن يأخذ المتعلمون في الاعتبار سماتهم كطلاب عبر الإنترنت، بالإضافة إلى إدارة الوقت والتواصل والكفاءات التكنولوجية.

## APPROVAL PAGE

I certify that I have supervised and read this study and that in my opinion, it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Master of Education.

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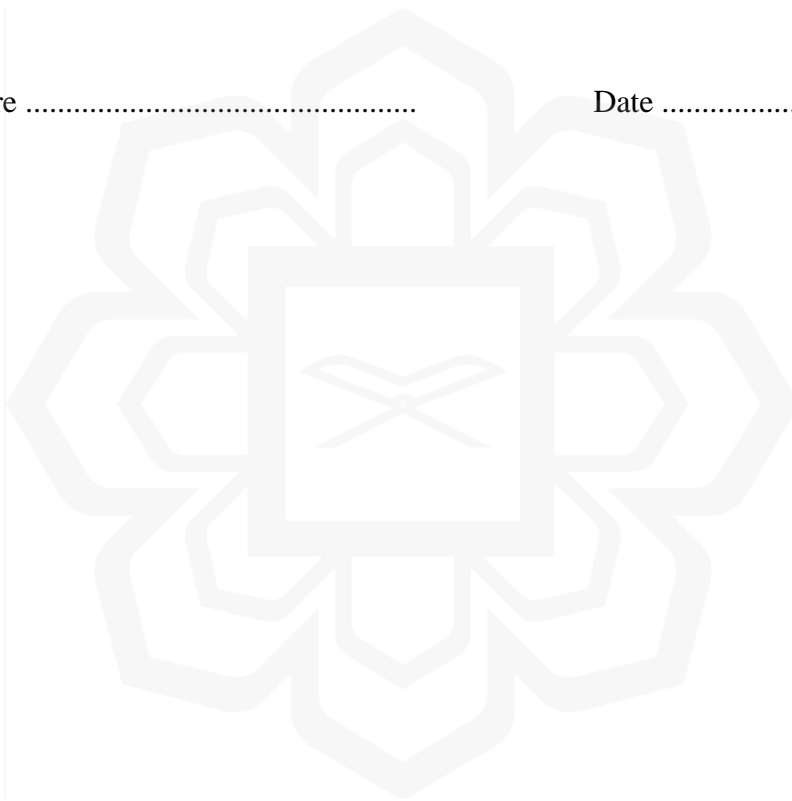
## DECLARATION

I hereby declare that this dissertation is the result of my own investigations, except where otherwise stated. I also declare that it has not been previously or concurrently submitted as a whole for any other degrees at IIUM or other institutions.

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*This dissertation is dedicated to my late father for laying the foundation of what I  
turned out to be in life.*



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# CHAPTER ONE

## INTRODUCTION

### 1.1 BACKGROUND OF STUDY

During the 1990s, online learning emerged as an education system in higher institutions in different countries worldwide (Sanchez, 2020). The outbreak of Covid-19 in 2020 led to a disruption in various sectors of life, including the educational sector (Peters et al., 2020). It has resulted in significant changes in tertiary education teaching and learning, and without any previous preparation, the online learning system has become dominant in higher education institutions worldwide (Crawford et al., 2020). Küsel et al. (2020) argue that online learning and teaching may make university education more appealing, personalized, practical, and flexible. However, several other recent studies contend that the unanticipated and quick move to online education may create a problem for students.

People's attitudes, especially students, are vital factors determining online learning success or failure (Ali, 2010). Despite students being a critical element when implementing online learning systems, some researchers have reported that students struggle to adapt from traditional classrooms to virtual classrooms (Adams et al., 2018). Consequently, Nespor (1987) argued that any reforms in higher education and the introduction of modern approaches would be effective only if students' and teachers' values, skills, and attitudes are considered.

Students' readiness is essential to successful online learning implementation (Rasouli et al., 2016). In their study, Basol et al. (2018) found five important aspects that positively affect learner success in online education. They are student readiness, orientation, teacher impact during preparation, assistance, and course subject matter. Online learning readiness may further assist institutes of higher learning in determining their respective levels of preparation, detecting any gaps, and then redesigning their approach to facilitate the adoption of an online learning program (Al-araibi et al., 2019). It is asserted that students' lower levels of performance,

engagement, and satisfaction in online learning environments result from their lack of readiness for online learning (Yurdugül & Demir, 2017). Thus, students' readiness is a necessary and influential factor for the success of online learning implementation in higher learning institutions. As a crucial concept for the present study, readiness or preparedness for online learning is therefore chosen as a main variable.

Warner et al. (1998) were the first to determine the concept of "student readiness for online learning." In their research, student readiness in online learning was classified into three categories: (1) preferred mode of delivery among students; (2) ability and confidence in one's capacity to utilize technology instruments; and (3) the skill to participate in independent learning. In subsequent research, online learning readiness was shown to be a multidimensional construct (Chung et al., 2020).

To fulfil this study's aims and explore further insight into the student's online learning readiness, this study adopted a model of online learning readiness proposed by Martin, Stamper, and Flowers (2020). This model investigates student readiness for online learning based on students' perceptions of the importance of and confidence in four essential competencies. Specifically, these competencies are online student attributes, time management, technicality, and communication. Competency refers to skills, knowledge, and abilities that students should possess to succeed in the online learning environment. The importance dimension represents the students' interest in their competencies in online learning. Likewise, the confidence dimension refers to the students' beliefs in accomplishing online student competencies.

Martin et al. (2020) developed the model in line with the developments in learning management systems (LMS) and the application of information and communication technology (ICT) tools that changed the way online lectures are offered to students. Students who are required to acquire a range of competencies and resources have been burdened by the transition to online learning (Radu et al., 2020). As such, the competencies of learners will increase online learning readiness and academic success (Taşkin & Erzurumlu, 2021). This indicates that online learning competencies potentiate online learning success (Chaves, 2021).

Although there are many studies on students' readiness for online learning, research on the relationship between students' perceptions of online education and their readiness to participate in online learning remains limited (Wei & Chou, 2020). Therefore, this study will address this gap by focusing on students' perceptions of their readiness for online learning.

Like other countries of the world, due to the impacts of the Covid19 crisis, Somalia's government-imposed movement restrictions have caused nearly all higher learning institutions in the country to migrate to online learning with immediate effect. This was accompanied by press releases informing students of the risks of Covid-19 and the adoption of technology for online learning (Mohamed et al., 2020). As a reaction to the effects of Covid-19 on education, various studies which concentrated on students' online learning readiness were conducted globally. Nevertheless, based on the researcher's literature review, there are no studies on students' readiness in an online setting in Somalia during the Covid-19 pandemic. Therefore, this study constitutes a humble attempt to contribute to the enlightenment of this subject matter.

## **1.2 STATEMENT OF THE PROBLEM**

On March 19<sup>th</sup>, 2020, the government of Somalia placed the country under a series of movement control orders to prevent the risk of the Covid-19 outbreak, which caused a disruption in classroom teaching and learning at all levels of education. This has subsequently forced the country's higher education institutions to migrate to online classes by April 2020. Universities headed by the Somali National University, Mogadishu University, and Simad University have worked hard to enhance the online education system and made great efforts to ensure that students are able to learn online by improving the infrastructural facilities required for running online learning smoothly through the use of e-learning platforms (Abshir, 2020). Nevertheless, to ensure the success of online learning programs, it is critical to assess the level of students' online readiness as well as to provide them with the appropriate infrastructure and resources (Ergün & Adibatmaz, 2020). Additionally, having enough technological infrastructure does not imply that everyone is ready to use it (Küsel et

al., 2020). Against this background, this study seeks to explore students' readiness as an essential factor in successful online learning implementation.

In addition, there is a lack of studies on the influence of demographic factors on students' online learning readiness in the Somali context. According to the literature, demographic variables influence students' readiness (Khalifeh et al., 2020). Also, previous investigations have yielded conflicting results. For instance, Taşkin and Erzurumlu (2021) reported that there is a significant difference in gender and no significant difference in the year of study regarding students' online learning readiness. On the other hand, Chung et al. (2020) claim that while there is no significant difference in gender, there is a significant difference in students' readiness according to the year of study. Also, the association between age and online learning readiness is inconclusive (Adams et al., 2021; Yesilyurt, 2021b). Thus, this study found it necessary to investigate how demographic factors impact Somali university students' readiness and justify the discrepancies in the results of prior studies.

### **1.3 RESEARCH OBJECTIVES**

The research was guided by following research objectives: First, it sought to determine Somali students' perceptions of the importance of selected online student attributes, time management, technical adeptness, and communication as being the competencies central to their online learning readiness. Second, the research examined the respondents' confidence in (i.e., their belief that they had) the selected online learning attributes and their time management, technical, and communication skills to make online learning a success. These skills were looked at as part of the online readiness competencies as proposed by Martin et al. (2020). The next research objective was to establish whether there would be significant differences in students' online learning readiness by gender and field of study. Lastly, the study explored the likely relationship between age and online learning readiness.

## **1.4 RESEARCH QUESTIONS**

Hence, based on the research objectives, the following research questions were addressed in this study:

- 1) Do Somali university students perceive the selected online learning attributes, time management competency, technical competency, and communication competency as important competencies for online learning readiness?
- 2) What is Somali university students' perceived confidence in the selected online learning attributes, time management competency, technical competency, and communication competency for their online learning readiness?
- 3) Does students' online learning readiness differ significantly by gender and field of study?
- 4) What is the relationship between age and online learning readiness?

## **1.5 THEORETICAL FRAMEWORK**

This study adopted Martin et al.'s (2020) model of students' readiness for online learning, in which four constructs are conceptualized as the essential competencies that influence students' readiness. The constructs are: (1) online student attributes, which refer to the characteristics and abilities that students need to have in order to succeed in online learning, such as setting goals, learning from various formats, and using additional resources related to the course; (2) time management, which considers the students' ability to manage their time well to overcome time challenges such as the capability to complete a set of work on time as well as to actively participate in the online learning environment; (3) communication as the students' readiness and comfort to use asynchronous and synchronous communication tools to communicate with both teacher and students, and to follow and discuss various activities related to the course; and (4) technical competency as the observable and

measurable technology abilities that must be made ready for the online learning problems' solution to succeed.

According to Farid (2014) and Martin (2020), the tools used in assessing students' online learning readiness are diverse in terms of the type of instrument and number of dimensions. This variety demonstrates that students' readiness for online learning is a multidimensional construct, implying a lack of agreement on its constituents (Farid, 2014). Nonetheless, researchers have attempted to determine one of the most commonly used as well as actual measurements in the study of readiness. Online student attributes, time management, technical aspect, and communication competency appear as the major dimensions of readiness (see Figure 1.1) (Al-Araibi et al., 2016; Farid, 2014; Martin et al., 2020; Smith et al., 2003; Yurdugül, 2015).

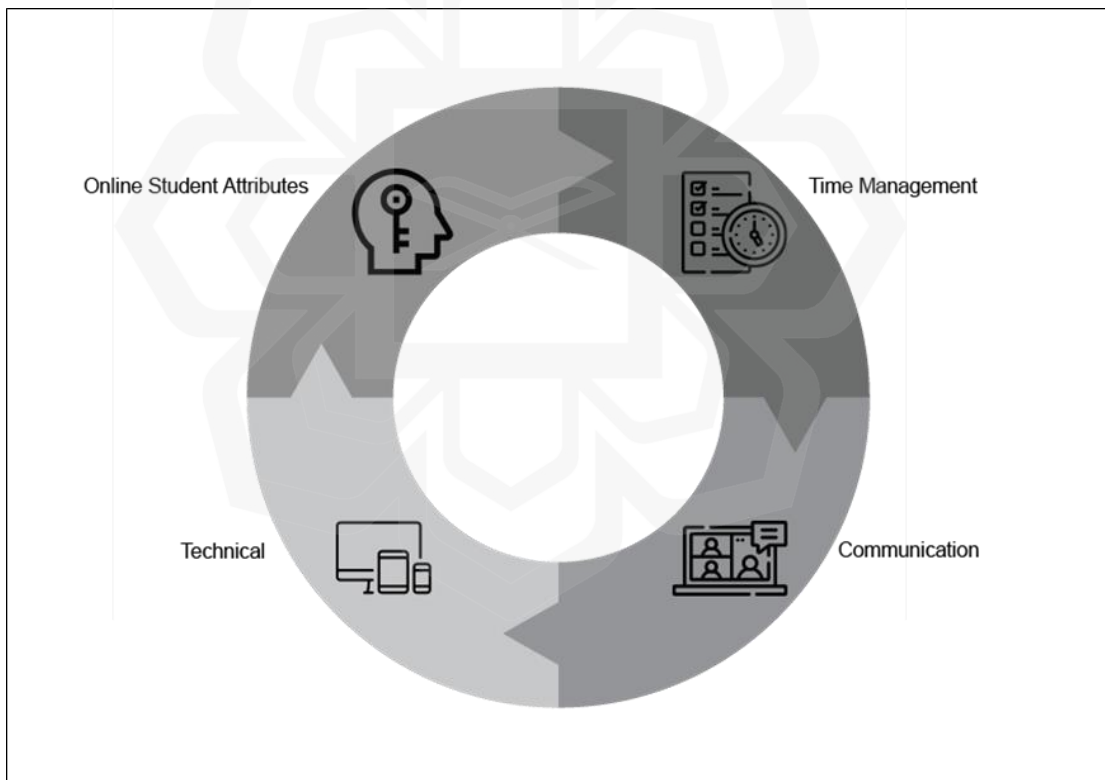


Figure 1.1 Components of Student Readiness for Online Learning Adapted from Martin et al. (2020)

## **1.6 SIGNIFICANCE**

### **1.6.1 Theoretical Contribution**

This research will contribute to the body of knowledge regarding the Somali National University, Mogadishu University, and Simad University students' readiness for online learning through their perceptions of importance and confidence in online learning competencies. As a result of the recent development of the Martin et al. (2020) model. It was used by only a few studies worldwide, while no study was found in Somalia. This study will serve as the basis and initial point for additional research on students' readiness for online learning through their perceptions of importance and confidence in online learning competencies. This has the potential of resulting in developing appropriate, specialized programs that can be successfully and efficiently implemented to improve and develop students' online learning competencies across the country.

### **1.6.2 Practical Contribution**

The outcomes of this study will enable educators and administrators in universities in Somalia to raise awareness and knowledge regarding Somali university students' readiness for online learning through their perceptions of importance and confidence toward online learning competencies. The empirical success of students' educational successes drawn from scientific study is founded when students are offered training on the importance of online learning competencies and how to employ them effectively. According to Young and Norgard (2006), awareness of learners' perceptions of the online learning approach will support teachers and administration to enhance the learning process to meet the needs of the students. Thus, students will have increased readiness for online learning, which will empower universities to successfully implement online education.

## **1.7 DELIMITATIONS OF THE STUDY**

This study examined the respondents' perceptions of the importance of and confidence in only four aspects or online learning competencies based on the theoretical constructs of Martin et al. (2020), namely, online student attributes, time management competency, technical competency, and communication competency. These competencies were then measured in terms of the abilities essential for online learning readiness. This was because the selected competencies were considered the most commonly used and significant in the study of online learning readiness. In addition, the research only considered the online learning readiness of Somali university students who have studied online for more than one year.

## **1.8 OPERATIONAL DEFINITIONS**

### **1.8.1 Online Learning**

Online learning is a teaching-learning educational system built and delivered using the internet, computers, and other information technology devices in combination or isolation that occurs outside the classroom either synchronously or asynchronously (Clark & Mayer, 2011). In this study, online learning is defined as an educational system that employs a variety of online tools, such as university learning management system, information and communication technology tools, e-learning platforms like Zoom videoconferencing, Google Meet, Google Classroom; or through Internet-independent multimedia platforms such as videos and tutorials to deliver and improve an education system that occurs outside the classroom both synchronously and asynchronously.

### **1.8.2 Online Learning Readiness**

In this study, student readiness refers to Martin et al.'s (2020) definition of the concept represented by four fundamental indicators: online student attributes, time management competency, technical competency, and communication competency. This construct was measured by combining the scores of perceived importance of and perceived confidence in the four online learning competencies as measured in the questionnaire.

### **1.8.3 Perceived Importance**

Perceived importance refers to Somali university students' viewpoint on or rating of the significance of selected online student attributes, time management competency, technical competency, and communication competency. This construct was measured by twenty items in the student readiness for online learning questionnaire.

### **1.8.4 Perceived Confidence**

Perceived confidence refers to Somali university students' beliefs in their capacity to succeed in online learning by demonstrating the selected online student attributes, time management ability, technical skills, and communication skills. This construct was measured by twenty items in the student readiness for online learning questionnaire.

### **1.8.5 Online Student Attributes**

Online student attributes refer to the Somali university students' ability to be self-disciplined by setting deadlines, learning through various formats online, following

instructions, and utilizing supplementary sources to fulfill course-related questions in online learning (Martin et al., 2020). This construct was measured by five items in the student readiness for online learning questionnaire.

#### **1.8.6 Time Management Competency**

Time management refers to the Somali university students' ability to organize and plan how to divide their time between various activities that occur in an asynchronous manner (Martin et al., 2020). This construct was measured by five items in the student readiness for online learning questionnaire.

#### **1.8.7 Technical Competency**

Technical competency refers to the Somali university students' ability to complete basic computer operations, navigate through the learning management system, participate in course activities, and access the online grade book (Martin et al., 2020). This construct was measured by five items in the student readiness for online learning questionnaire.

#### **1.8.8 Communication Competency**

Communication competency indicates the Somali university students' capability to use asynchronous and synchronous technologies to share written and oral information with the instructor and their classmates (Martin et al., 2020). This construct was measured by five items in the student readiness for online learning questionnaire.