



**Faculty of Cognitive Sciences and Human Development**

**THE ROLE OF TRAIT EMOTIONAL INTELLIGENCE TOWARDS STUDENTS'  
READINESS IN ONLINE LEARNING AMONG UNDERGRADUATES**

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**DECLARATION OF ORIGINAL WORK**

This declaration is made on the 10th day of August year 2020.

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10<sup>th</sup> August 2020

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## **ABSTRACT**

The objective of this study is to identify the role of trait emotional intelligence towards students' readiness in online learning. This study clarified the role of trait emotional intelligence or personality traits as one of important elements to understand students' readiness in online learning. Previous research done by other researchers show the result of male and female readiness in online learning was not consistent. There are contradictions on past research and a limited number of studies in these areas, especially among Malaysian students. Research design used in this study is a quantitative method. To measure students' personality trait, Trait Emotional Intelligence – Short Form (TEIQue – SF) by Petrides (2009) has been used and to investigate students' readiness in online learning, the instrument used is Online Learning Readiness Scale that was developed by Hung et. al (2010). Major findings found that trait EI sub-dimensions such as well-being, self-control and social skills have a significant relationship with online learning readiness. Other than that, the findings found that male students have shown more readiness in online learning compared to female students. The study also found that students' educational background has no relationship with their readiness in an online learning environment.

*Keywords:* Trait Emotional Intelligence (EI), Online learning readiness, well being, self-control, social skills, emotion.

## **ABSTRAK**

Objektif kajian ini adalah untuk mengenal pasti peranan sifat kecerdasan emosi terhadap kesediaan pelajar dalam pembelajaran dalam talian. Kajian ini menjelaskan peranan kecerdasan emosi sifat atau sifat keperibadian sebagai salah satu elemen penting untuk memahami kesediaan pelajar dalam pembelajaran dalam talian. Penyelidikan sebelumnya yang dilakukan oleh penyelidik lain menunjukkan hasil kesediaan lelaki dan wanita dalam pembelajaran dalam talian tidak konsisten. Terdapat percanggahan pada penyelidikan masa lalu dan sebilangan besar kajian di bidang ini, terutama dalam kalangan pelajar Malaysia. Reka bentuk kajian yang digunakan dalam kajian ini adalah kaedah kuantitatif. Untuk mengukur sifat keperibadian pelajar, *Trait Emotional Intelligence - Short Form (TEIQue - SF)* oleh Petrides (2009) telah digunakan dan untuk menyiasat kesediaan pelajar dalam pembelajaran dalam talian, instrumen yang digunakan adalah *Skala Kesediaan Pembelajaran Dalam Talian* yang dikembangkan oleh Hung et. . al (2010). Penemuan utama mendapati bahawa sub-dimensi sifat EI seperti kesejahteraan, kawalan diri dan kemahiran sosial mempunyai hubungan yang signifikan dengan kesediaan belajar dalam talian. Selain itu, hasil kajian mendapati bahawa pelajar lelaki menunjukkan kesediaan belajar dalam talian lebih tinggi berbanding pelajar perempuan. Kajian ini juga mendapati bahawa latar belakang pendidikan pelajar tidak mempunyai hubungan dengan kesediaan mereka dalam persekitaran pembelajaran dalam talian.

*Kata kunci:* sifat kecerdasan emosi, kesediaan belajar dalam talian, kesejahteraan, kawalan diri, kemahiran sosial.

## **CHAPTER ONE**

### **INTRODUCTION**

The fourth Industrial Revolution (IR 4.0) transformed the environment of educational motivation. IR 4.0 is controlled by artificial intelligence and electronic-physical systems, making interactions between man and machine more clearly defined. (Shahroom & Husin, 2018). The education system is also included in IR4.0. According to Maria, Shahbodin, and Pee (2018), the education process would rely a great deal on the use of the Internet as the primary tool of sharing knowledge, mobile devices and PCs, and the virtual setting. The education system in Malaysia needs to focus on university students to get used to virtual environments such as classes held in online space. Over the past decades, learning as a process has changed tremendously (Saks & Leijen, 2014). The learning process can take place whether students and lecturers attend class and meet with each other physically or class handled online. There are many terms used to define virtual learning environments based on how it occurs. A virtual learning environment (VLE) is a series of learning materials intended to improve a student's learning experience by integrating computers and the Internet into the process of learning (Şenel, 2016). Online education comes in multiple of forms, such as computer-based, internet-based, remote online teaching, collaborative learning, and facilitated virtual learning (Şenel, 2016). According to Şenel (2016), a virtual classroom is an online learning environment, which can be accessed and downloaded on the internet through a portal or software. Therefore, to conduct a virtual classroom, both students and the lecturer need to install software or use a portal to allow them to engage with each other. However, a virtual classroom is learner-centered, unlike a traditional classroom (Subramaniam and Kandasamy, 2011).

In other terms, the classes are held using online platforms where students do not need to attend class physically. The virtual classroom provides one-by-one or group live teaching. It is called an Electronic learning or E-learning framework or can view via the Internet as a simulated classroom (Sahar, 2013). Virtual classrooms are also part of online learning or E-learning. The use of virtual classrooms has shown that students and teachers can engage in an innovative educational and learning environment. Virtual classrooms often used for tertiary courses in so far as some universities offer only online courses (Ruhinda, 2013). Mostly in virtual classroom, instructors play a role in regulating the teaching - learning process as in the physical education. According to Subramaniam and Kandasamy (2011), a virtual classroom not only provides the learners with training materials but also provides them with a live, immersive, and interactive atmosphere.

In whatever situation, especially in learning, all the students need to be prepared physically and mental. For a job to settle, an individual must prepare to be able to perform all those activities, whether it be physical preparation, psychological preparedness, and intellectual readiness (Levine-donnerstein & Marx, 2015). According to Gandhi (2010), learning readiness is a fundamental component of success in achieving the aims and objectives of student education. Dangol and Shrestha (2019), proved that in their study that the fundamental component for better learning in students can be said to be learning readiness. When an individual is ready to do an intrinsically learning act, they can learn effectively with higher satisfaction, but when they are not willing to learn all of their efforts and others will be wasted (Dangol and Shrestha, 2019). Greater satisfaction in learning always leads to better educational performance. Therefore, our understanding of readiness is essential by knowing what preparation is made to make learning more exciting and understandable. The virtual classroom is also part of learning, and the students need to be ready at all degrees to achieve better learning outcomes the same as the traditional classroom.

Online learning readiness plays a crucial role in interactive learning to engage in online learning process. Ahmed, Elmi, and Zakaria (2012) noted that the research carried out on the virtual learning environment and academic performance demonstrate that the virtual learning environment can be the same as the face-to-face environment because it enables direct communication with the lecturer.

Knowing other people's emotions, voicing our own emotions, and acknowledging them is known as emotional intelligence (EI). EI research comprises two different perspectives, which are Trait Emotional Intelligence and Ability Emotional Intelligence. According to Salovey and Sluyter (1997), the willingness to interpret and express feelings has been described by EI as the ability to integrate emotion into thought process, ability to understand, and sensibility of emotion, and also to control feelings in oneself and others. The ability EI, as suggested by Mayer and Salovey (1997), comprises four emotional dimensions: identification, utilization, understanding and regulation (Mouton, Hansenne, Delcour, & Cloes, 2013). The EI trait, associated with emotional self-efficacy, relates to the constellation of behavioral structures and beliefs about one's ability to understand the process and use emotional information (Petrides, Frederikson & Furnham, 2004). Both different perspectives of emotional intelligence can differentiate based on the method of measurement using a questionnaire. Trait EI is about self-report measured self-perceptions, while ability EI is about emotional, cognitive abilities, which should be measured through maximum performance tests (Petrides, 2011). However, Petrides (2011) noted that the differences between the EI trait and the EI abilities is based on the process of measuring the design but not on the elements (facets) to be covered by the various models.

Conceptually, trait emotional intelligence incorporates the personality's affective aspects (Petrides, Siegling, & Saklofske, 2016). It is often related to academic performance.

According to Buzdar, Ali, and Tariq (2016), The students' performance in virtual learning environments linked to their behavioural intention to adopt an online teaching approaches. In an online learning platform, attractiveness, enjoyable, and convenient to use might affect the students from using this learning platform continuously. However, if the students feel it was irritating and a burden to use online learning to enhance their knowledge, then it was useless for them, and they could gain anything from it. That is why understanding our own emotions during and after using online learning is essential. Based on the previous studies, Hukle (2009) mentioned that the preparation of students enhanced online learning and in other studies also mentioned that the online preparation level of students was a framework directly related to the online learning environments' achievements (Artino, 2009; Gale, Downey, & Johnson, 2011; Kruger-Ross & Waters, 2013 as cited in Engin, 2017). The study done by Berenson, Boyle, and Weaver (2008 ) found that the EI had a positive influence on student outcomes, coherent with the findings of the Engin (2017) study, that also confirmed that there was a relationship between online learning readiness and the EI trait. Thus, this study is to understand our own emotions towards students' readiness in online learning, which is focused on virtual classrooms.

### **Problem Statements**

It takes lots of consideration to use online learning among students in university as they need to adapt to an online learning platform. The aim of adaptation is to enhance the relationship between both the learning requirement and the subject matter of the course, which indicates that the academic performance could be achieved with an amount of effort and interaction spent on the course (Muhammad, Zhou, Beydoun, Xu, & Shen, 2016). They also deal with their own emotions when they perceive something. In addition to influencing the social

climate in classrooms and educational institutions, emotions influence the success of students as well as their motivation, engagement, and personality development (Pekrun, 2015).

As indicated further in the literature review, based on the previous research studies about the relationship between trait emotional intelligence and online learning readiness, the result has not been consistent. Which the result of male and female readiness in online learning was not consistent. Hashim and Tasir (2014) noted that Additional factors such as Internet experience , educational background , gender or ethnic background could also be regarded as a focus for future research to determine whether such factors have an impact on online education readiness. Other than that, since online learning is part of learning, future-readiness research may focus on additional student characteristics such as gender and age (Basol, Cigdem, & Unver (2018).

These studies can be further extended by the researcher to know gender different in online learning readiness. Students' readiness and knowledge about how to conduct online learning is essential for the student as they are the one that will go through it. There are contradictions on past research and a limited number of studies in these areas, especially among Malaysian students. In addition, no study has reported on the relationship between the trait of emotional intelligence and student readiness to learn online. Further research is needed to bridge the gap and in order to understand the relationship between trait emotional intelligence levels and students' readiness in facing online classes. And also, trait EI levels can predict students' readiness in an online learning environment.

### **Objectives of the Study**

General Objective: The objective of this study is to identify the role of trait emotional intelligence in online learning readiness among undergraduate students in a public university in Sarawak.

Specific objective:

- 1) To find out the relationship between trait emotional intelligence and online learning readiness among undergraduate students.
- 2) To compare the online readiness based on a demographic factor such as gender, year of study, and educational background.

### **Research Hypotheses**

H<sub>1</sub>1: There is a significant relationship between well-being and online learning readiness among undergraduate students in UNIMAS.

H<sub>1</sub>2: There is a significant relationship between self-control and online learning readiness among undergraduate students in UNIMAS.

H<sub>1</sub>3: There is a significant relationship between emotion and online learning readiness among undergraduate students in UNIMAS.

H<sub>1</sub>4: There is a significant relationship between social skills and online learning readiness among undergraduate students in UNIMAS.

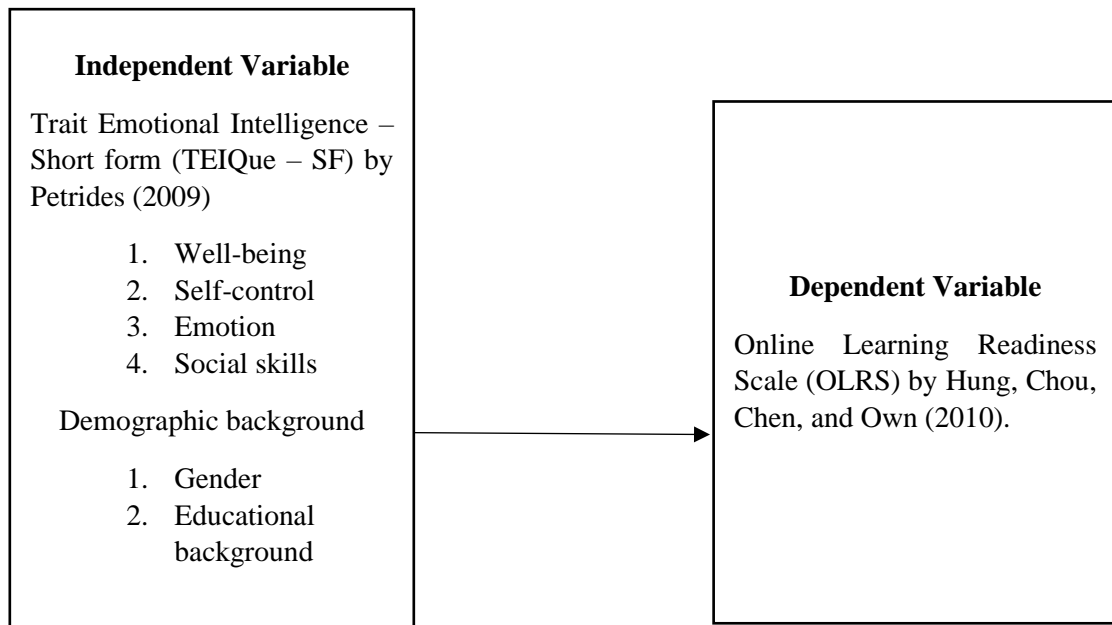
H<sub>1</sub>5: There is a significant difference in online learning readiness based on gender among undergraduate students in UNIMAS

H<sub>1</sub>6: There is a significant difference in online learning readiness based on the educational background among undergraduate students in UNIMAS



## Conceptual Framework of a Study

The theory used in this research for emotional intelligence is Trait Emotional Intelligence – Short form (TEIQue – SF) by Petrides (2009), and the theory for online learning readiness is Online Learning Readiness Scale (OLRS) by Hung, Chou, Chen, and Own (2010).



*Figure 1 Conceptual Framework*

## Definitions of Terms

### 1. Trait emotional intelligence

Conceptual definition: Trait emotional intelligence identified as a constellation of self-perceptions located at the lower levels of personality hierarchies (Petrides, Pita, & Kokkinaki, 2007)

Operational definition: In this study, the trait EI will be measured by using the Trait Emotional Intelligence Questionnaire (TEIQue-SF) consisting of 30 items that include two items from each of 15 facets of the TEIQue.

## **2. Well-being**

Conceptual definition: Subjective well-being is an indicator of a person 's life. Such an assessment may be in terms of mental states, such as satisfaction with one's family, work and life, and may be in terms of ongoing influence, such as the occurrence of positive moods and emotions, and the lack of negative consequences. (Diener, Sapyta & Suh, 1998)

Operational definition: Well-being is a condition where students feel that they are experiencing high satisfaction, happiness, and fulfilled in the deal with their own emotions in order to achieve a better online learning experience.

## **3. Self-control**

Conceptual definition: Self-control includes the following behavior patterns as minimal components in which a person examines his or her actions and relates it to social identity, roles, and role-making (Young, 2013).

Operational definition: Self-control is one ability to understand and manage of one's emotions, thoughts , and behaviors in order to achieve goals of virtual classrooms provided by their lecturer. The students themselves must control their behavior to avoid unwanted situations happening while online learning is in progress and the goals of it cannot be achieved due to the uncontrolled behaviors. Having good self-control can help the students to control external pressures and stress in a virtual classroom.

## **4. Emotion**

Conceptual definition: Emotions are strong feelings directed towards somebody or something (Frijda, 1993).

Operational definition: Students' emotions towards readiness in online learning will affect the process of learning. Some of the students might be having anxiety, fear, happiness, or even sadness based on their preparation before virtual classroom conduct.

## **5. Social skills**

Conceptual definition: Social skills are behaviors that allows us to communicate and prevent undesirable reactions. (Darabeea, Salehib, & Fakhrc, 2016).

Operational definition: In the context of this study, social skills relating to how the student understands other students feel when they confront in a virtual classroom, how other students could admire oneself to achieve better learning, and how students could interact with each other in virtual classrooms.

## **6. Online learning readiness**

Conceptual definition: Readiness or preparedness has to do with understanding, knowledge of use, the attitude of us, and skill in the use of IT (Aremu & Adediran, 2011).

Operational definition: A Virtual classroom is also part of online learning; therefore, the students need to prepare mentally and physically before online classes start. Students' readiness in online learning will be examined by using the Online Learning Readiness Scale consisting of 18 items and their preparedness measured based on their motivation to learn, computer/internet self-efficacy, learner control, self-directed learning and online communication self-efficacy.

## **Limitations of the Study**

The findings of this research will be specified so that unwanted data could be avoided. As a consequence of the outbreak of Covid-19 and the Movement Control Order,

which restricted face-to-face learning, it appears that integrating online learning and understanding the personality traits of students through characteristic emotional intelligence resources is essential. All physical classes cannot be done due to this pandemic. However, online classes help to cover this issue. The population for this study is limited only for undergraduate students in a public university in Sarawak. The population aims for this study are students from different faculties and several years of study at Universiti Malaysia Sarawak (UNIMAS). This study is focusing on the students' readiness in a virtual classroom and trait emotional intelligence. Students' readiness in a virtual classroom will be accessed using the Online Learning Readiness Scale (OLRS) by Hung, Chou, Chen, and Own (2010). This study was involving different students from all faculties to know their preparation in facing a virtual learning environment.

### **Significance of the Study**

The significance of this study is to understand the role of trait emotional intelligence as an indicator to measure students' emotion and their personality towards online learning, which is a virtual classroom. Our emotion towards the use of something that might affect our personality on how we would be interacting with it after having experiences. So, for this study, trait emotional intelligence has been used to identify the participants' online learning readiness, which might help to understand their readiness when doing online learning. If we can identify whether male or female is most shown more readiness in virtual classrooms, the lecturers could use this study to enhance better learning in the future. The findings of this study can also be used as a reference for future researchers, especially in Sarawak. Since there is not much research done in this area, future researchers could use the framework implemented in this study in order to replicate this study.

## CHAPTER TWO

### LITERATURE REVIEW

#### **Trait Emotional Intelligence or Trait Emotional Self-Efficacy**

Mayer, Salovey, Caruso, Cherkasskiy (2011) mentioned that in the 2000 edition of the Handbook of Intelligence, they defined emotional intelligence as “the ability to perceive and express emotion, assimilate emotion in thought, understand and reason with emotion, and regulate emotion in the self and others” (p. 528). The word of emotional itself conveys that it was related to persons’ emotions or feelings towards something. We used to respond to something that might affect how happy, sad, or angry we felt. People experienced 2.5 times more positive emotions than negative ones, but at the same time, experienced positive and negative emotions equally regularly (Trampe, Quoidbach, & Taquet, 2015).

An analysis of psychological intelligence approaches would explain that "Trait Approaches" and "Information Transmission Techniques" are important for the definition of emotional intelligence (Engin, 2017). Two distinct EI approaches can be differentiated on the basis of the calculation system used to implement them because previous work has been performed to ensure that there are two separate measures in the EI, the two different constructs known as the EI capacity and the EI characteristic. According to Petrides (2011), ability EI is examined via maximum performance using cognitive ability concept, while trait EI measurement based on self-report that uses the personality trait concept.

Trait EI is a set of emotional interactions assessed in questionnaires and rating scales (Petrides, Pita and Kokkinaki 2007). It is the most detailed psychological approach. As stated by Petrides (2011), “EI's high-profile levels are not generally adaptive, and poor results are not specifically misadaptive (p. 661)”. The scores when answering trait EI instruments could not define someone's behaviors because we do not know what does he or she been

experiencing before answering the instruments, which might change the interpretation of the questions that were asked. According to Engin (2017), high-trait emotional intelligence helps individuals choose coping approaches, minimize negative emotions, and exchange negative emotions with positive emotions, and trait EI instruments may be indicative of self-promotion (Petrides, 2011).

This study measures the EI trait for students by the use of a Trait Emotional Intelligence Short Form (TEIQue – SF), which contains thirty items that consist of two papers from the fifteen dimensions of global EI assessment. The tool builds were based on the EI theory of function. The things in EI questionnaires are built to assess sub-scales, including self-control capabilities, well-being, cognitive capacities and emotional skills.

### **Learning Readiness**

**Self-regulated learning.** Self-regulated learning is about how someone has control over their learning and behavior towards the goal. Self-regulation is part of an essential key in learning, and the same goes for online learning. According to Wong et al. (2019), self-regulated learning encourages students in online settings to help achieve academic achievement. The views of people regarding their ability to succeed have a strong influence on people may gain from the learning experience online process of self-regulation. The learner should use a suitable strategic approach, such as self-regulated learning, to ensure that they can learn from the online learning environment (Adam et al., 2017). Zimmerman (1990) noted that self-regulatory learning strategies refer to behaviors and processes for the acquisition of information or abilities that include developing expectations of organizations, intentions and resources.

Self-regulation is not a intellectual ability or academic capability, but an adaptive mechanism by which students transform their cognitive capabilities into academic skills

(Zimmerman, 2002). Three components of self-regulated learning are self-regulated learning techniques, expectations of self-efficacy, and dedication to academic achievements

(Zimmerman, 1989). The theory of self-regulated learning proposed to explain an initiative that learners could use to enhance learning in order to achieve better academic achievement. Mostly, self-regulation learners are more successful because they can regulate their learning environment and make it enjoyable. As Zimmerman (1990) points out, by stressing how students select, arrange or create a favorable learning atmosphere for themselves and how they prepare and manage the form and amount of their education, self-regulated learning theories of academic success are distinct from other learning. The learner will be the one that carried out how do they perceive their learning to be understandable on their way. They are active in learning, and they already know their strengths and weaknesses, which they will try to improve.

**Online learning Readiness.** Hung, Chou, Chen, and Own (2010) proposed an online learning readiness model to measure the readiness of students towards online learning. The model proposed by Hung et al. (2010) consists of five dimensions which are, computer/internet self-efficacy, motivation, learner control, self-directed learning, and online learning self-efficacy. It was essential to understand readiness or preparation made to achieve a better understanding of what we are doing. According to Lopes (2007), online learning preparedness is defined as the readiness of an individual or organization to realize the benefits of online learning. Meanwhile, in order to have better understand how efficient online learning is, we need to know what the most dimensions could affect students' readiness in online learning (Hung et al., 2010).

Self-efficacy can be described as the beliefs and expectations of a person in their ability to carry out a task (Bandura, Barbaranelli, Caprara, & Pastorelli, 1996). An individual with a high self-efficacy has his or her own confidence that they can reach their goals

successfully. Computer self-efficacy would be defined that a person has a belief in using a computer while Internet self-efficacy is about one belief in using the Internet. Hung et al. (2010) noted that the Internet and computer self-efficacy were different in setting up, maintaining, and using the Internet. The Internet self-efficacy may affect students' access to information strategies and may encourage their use of these strategies in internet-based learning settings (Tsai & Tsai, 2003, as cited in Engin, 2017).

The next dimension used to measure readiness in online learning is self-regulated learning. Self-regulated learning encourages to help students to achieve academic success in online environments (Wong et al., 2019). Knowles (1975) argued that self-directed learning as a process involving the identification of individual learning needs, the identification of learning goals, the definition of learning material tools, the selection and implementation of appropriate learning strategies, and the use of choices in the evaluation of learning results. In the self-directed learning process, learners are involved throughout deciding learning goals, tasks, needs, and levels of success and are more responsible for self-learning (Oh, 2006). To sum up, self-regulated learning is a need for online learning as well. Self-regulation helps students a lot in their academic achievement and improve their self-confidence always to believe that they could achieve their goals.

Having control of online learning also help students having better in making themselves ready. Most of the students that still new with an online learning environment would find it hard to adapt to online learning. Engin (2017) agreed that students would have more control over their learning when they have more accessibility and adapted means of learning (Lin & Hsieh, 2001). However, due to the uncontrolled condition, the learner might experience some difficulties in learning, which could affect their emotions and might lead to ineffective learning. Corbalan, Kester, and Van Merriënboer (2009) mentioned that learners