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**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.

Student's Declaration:

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10th August 2020

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The project entitled ‘The Role of Trait Emotional Intelligence Towards Students’ Readiness in Online Learning among Undergraduates’ was prepared by Sherilayn Sannie anak Kendawang and submitted to the Faculty of Cognitive Sciences and Human Development in partial fulfillment of the requirements for a Bachelor of Science with Honours (Cognitive Science).

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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

H₁1: There is a significant relationship between well-being and online learning readiness among undergraduate students in UNIMAS.

H₁2: There is a significant relationship between self-control and online learning readiness among undergraduate students in UNIMAS.

H₁3: There is a significant relationship between emotion and online learning readiness among undergraduate students in UNIMAS.

H₁4: There is a significant relationship between social skills and online learning readiness among undergraduate students in UNIMAS.

H₁5: There is a significant difference in online learning readiness based on gender among undergraduate students in UNIMAS

H₁6: 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).

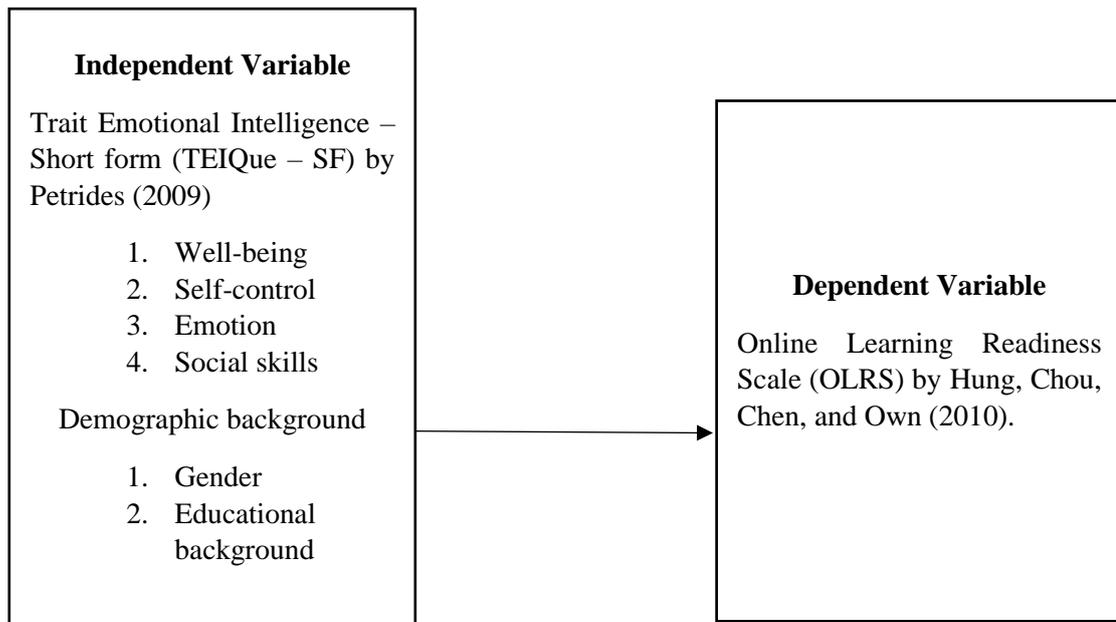


Figure 1 Conceptual Framework

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

could have potential threats such as lack of control, suboptimal choices, and a high cognitive strain on the mental capacity of students, determined by the number of choices available.

Motivation to learn is also considered by Hung et al. (2010) to be one of the key criteria used to assess readiness to use online learning. Without motivation, we might be lost in what we are doing and also unable to cope well in learning. According to Lim (2004), learning motivation is a must for active online learning.

Communication not only necessary in a physical classroom, but also necessary in an online learning environment. Communicating with others can help to enhance comprehension in order to achieve better learning. The establishment of connections and interaction opportunities between students and their web-based instructors is important (McVay, 2000).

Previous Research

Trait emotional intelligence and online learning readiness

Based on the instrument used to measure trait EI, there are four dimensions use to examine which are self-control skills, well-being, social skills, and emotional skills. Readiness plays a role in boosting self-confidence and satisfaction in learning. The study was done by Melih Engin (2017) was close to the current study that been conducting, and it used as a reference to exposed more about the relationship between trait emotional intelligence and online learning readiness in the virtual classroom and supported by other related research.

According to previous research conducted by Engin (2017), the study measured students' self-control skills, well-being, social skills, emotional skills to identify students' readiness in an online learning environment. The findings of the study confirmed that the readiness in online learning was related to trait emotional intelligence levels. Another study that was done by Budzar, Ali, and Tariq (2016) also found that emotional intelligence has significant impacts on students ' preparedness to learn using online learning.

The study done by Engin (2017) found that self-control skills, social skills, and well-being of the students increase; the students will be more prepared and ready in an online learning environment. As indicated in the study done by Thaufeega (2016) in the Maldives, students are moderately ready for social participation in online learning. Even though the students are not in a physical classroom, yet they need to interact with lecturers and peers to enhance better learning. Based on the research findings, self-control skills more to take over the online learning readiness level (Engin, 2017). Self-control and Self-directed learning found to be essential variables in readiness, also help to manage the learning process in online learning (Demir Kaymak & Horzum, 2013). Individuals with greater social skills may have greater faith in computers and Internet self-efficacy, such as using the basic tasks of microsoft office applications (Word, Excel and PowerPoint), or how to use Internet to access knowledge (Engin, 2017). The course offered via distance education found to have a significant impact on the computer and internet self-efficacy of the students (Emine & Kalelioglu, 2019). The distance education allowed students that are far from their educational institutes to interact with each other using a medium such as online learning to make learning more accessible. Engin (2017) noted that "students with a high level of social skills and well-being could be much more effective in encouraging them to learn behaviour, such as being open to new ideas in an online setting, inspiring them to learn online, learning from their own mistakes in the online environment, and wanting to share their own ideas with each other in an online environment." (p. 38).

Demographic background and online learning readiness

Many studies have been done to know the relationship between gender and online learning readiness. While there is significant online readiness research available, variations between learner styles and gender differences, it remains unclear how online readiness for adult learners can be adequately assessed (Atkinson & Blankenship (2009). However, the

findings were inconsistent even though many studies had been done to investigate gender differences in online learning readiness. Therefore, Basol, Cigdem, and Unver (2018) suggested that further study may look into online learning readiness based on gender differences. Gender equity is a consideration to be addressed in the development of online learning courses. (Ramírez-Correa, Arenas-Gaitán, & Rondán-Cataluña, 2015). The literature acknowledges that gender is a critical element in understanding gaps in perceptions of usefulness and ease of use as determinants of adoption of technology (Venkatesh and Bala, 2008).

Rahim, Yusoff & Latiff (2014) confirmed that the overall characteristics of successful e-learning are not affected in their analysis by gender, level of study and faculty group and support by other research done by Rasouli, Rahbania & Attaran (2016) that there was no significant difference in their readiness for online learning between male and female students.

However, Basol et al . (2018) found that higher education male students displayed more preparation for e-learning than female students in the context of their research..According to a study conducted by Bana, Romasame, and Cristobal (2016), similar to Basol et al. (2018), the results indicated that in an e-learning setting, there is a difference in the potential behavior of both genders. In the context of their study, Naresh, Reddy, Bhanu, and Pricilda (2016) summarize demographic variables of students, such as gender, educational background and Internet use, have a strong impact on readiness for e-learning. The differences in demographic variables in the e-learning preparation of students have shown in the study (Adams, Sumintono, Mohamed & Noor, 2018).

Acceptance of learners in online learning also affects students' readiness in online learning. The research on the impact of gender on the adoption of information technology is

not definitive if the study shows conflicting evidence as to whether or not gender influences the possibility of using a computer system (He & Freeman (2019)).

Based on research done in this area of study, there is not much research done to identify the role of educational background in online learning readiness. Therefore, further study based on educational background will be identified in the current study.

CHAPTER THREE

METHOD

Research Design for this Study

This thesis used a quantitative method for analysis. Until distribution of the questionnaire to the target population, the validity and reliability of the adopted instruments will be checked on the participants first.

There are two types of instruments used in this research, which are Trait Emotional Intelligence– Short Form (TEIQue – SF), to measure the trait emotional intelligence and Online Learning Readiness Scale (OLRS) to identify the readiness when doing online learning. For this analysis the Independent variable is emotional trait intelligence and demographic backgrounds (gender and educational context). While for dependent variable is online learning readiness.

Independent Variable: <ul style="list-style-type: none">- Trait emotional intelligence- Demographic background (Gender, age, educational background, year of study)	Dependent variable: <ul style="list-style-type: none">- Online learning readiness
---	--

Figure 2 shows independent and dependent variables

Techniques of Data Collection

Data collection methods used for this analysis are a questionnaire focused on the distribution of tools used to assess emotional intelligence trait and readiness to learn online among undergraduate students. The questionnaires distributed randomly to participants by using Google Form.

Research Instrument

The set of the questionnaire used to study this research consist of three parts which is Part A, Part B, and Part C.

Demographic Background. For the demographic background, the researcher would ask the participants about their gender, age, year of study, and educational background. The gender of the participants consisting of two items, which is male and female. The educational background of the participants asked about their educational level before they enter the public university in Sarawak, whether the participants are from STPM level, Matriculation Level, Diploma level, or others.

Trait Emotional Intelligence. The participants' trait of emotional intelligence would measure using Trait Emotional Intelligence – Short Form (TEIQue – SF) by Petrides (2009). This questionnaire used four dimensions, which are to measure the participants' self-control, well-being, emotional, and social skills. TEIQue – SF questionnaire consists of 30 items. The table below shows the Likert scale used for this questionnaire.

Strongly disagree	Disagree	Somewhat disagree	Neither agree nor disagree	Somewhat agree	Agree	Strongly agree
1	2	3	4	5	6	7

Table 1 shows the Likert Scale for TEIQue - SF Questionnaire

Online Learning Readiness. To measure students' readiness towards online learning, the instrument used is the Online Learning Readiness Scale (OLRS) by Hung, Chou, Chen, and Own (2010). The questionnaire constructed into four dimensions, which are

computer/internet self-efficacy, self-directed learning, learner control, motivation to learn, and online communication self-efficacy. OLRs consists of 18 items. The table below shows the Likert scale used for this questionnaire.

Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
1	2	3	4	5

Table 2 shows the Likert Scale for Online Learning Readiness

Population and Sampling

This study will be using a non-probability sampling method which is convenience sampling. The respondents selected in this study are among undergraduate students from different faculty. Non-probability sampling method is chosen because it might be easier to reach the students based on their availability to participate in this study and also due to some limitation mentioned in Chapter 1. According to Etikan, Musa and Alkassim (2016) convenience samples are sometimes considered to be 'accidental' due to the fact that elements can be identified in the study simply because they are placed, spatially or administratively, close to where the researcher performs the data collection. The targeted population in this public university is 100 participants from different faculty.

Validity and Reliability Issues

Pilot test. The questionnaire would be distributed randomly to 50 participants to test the reliability. The reliability is needed to measure the consistency of the questionnaire.

Cronbach alpha. The Cronbach alpha is a value based on the pilot test received based on the questionnaire distributed among 50 participants. Cronbach alpha defines how a group of items demonstrates a particular idea or construction (Cronbach, 1951). So, alpha

values described as shown in the table below by Taber (2018). Table 3 and 4 show cronbach’s alpha value for Online Learning Readiness Scale and Trait Emotional Intelligence – Short Form respectively. Both questionnaires show reliable results.

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.852	.860	18

Table 3 shows Cronbach’s alpha value for Online Learning Readiness Scale

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.832	.826	30

Table 4 shows Cronbach’s alpha value for Trait Emotional Intelligence – Short Form

Indicator	Cronbach alpha value
Excellent	(0.93–0.94)
Strong	(0.91–0.93)
Reliable	(0.84–0.90)
Robust	(0.81)
Fairly high	(0.76–0.95)
High	(0.73–0.95)
Good	(0.71–0.91)
Relatively high	(0.70– 0.77)
Slightly low	(0.68)

Reasonable	(0.67–0.87)
Adequate	(0.64–0.85)
Moderate	(0.61– 0.65)
Satisfactory	(0.58–0.97)
Acceptable	(0.45–0.98)
Sufficient	(0.45–0.96)
Not satisfactory	(0.4–0.55)
Low	(0.11)

Table 5 shows the value for Cronbach alpha

Missing values

'Missing values' occur for a variety of reasons, including unwillingness or inability to respond to a specific question. Figure 3 shows there are no missing values for the current data used in the study.

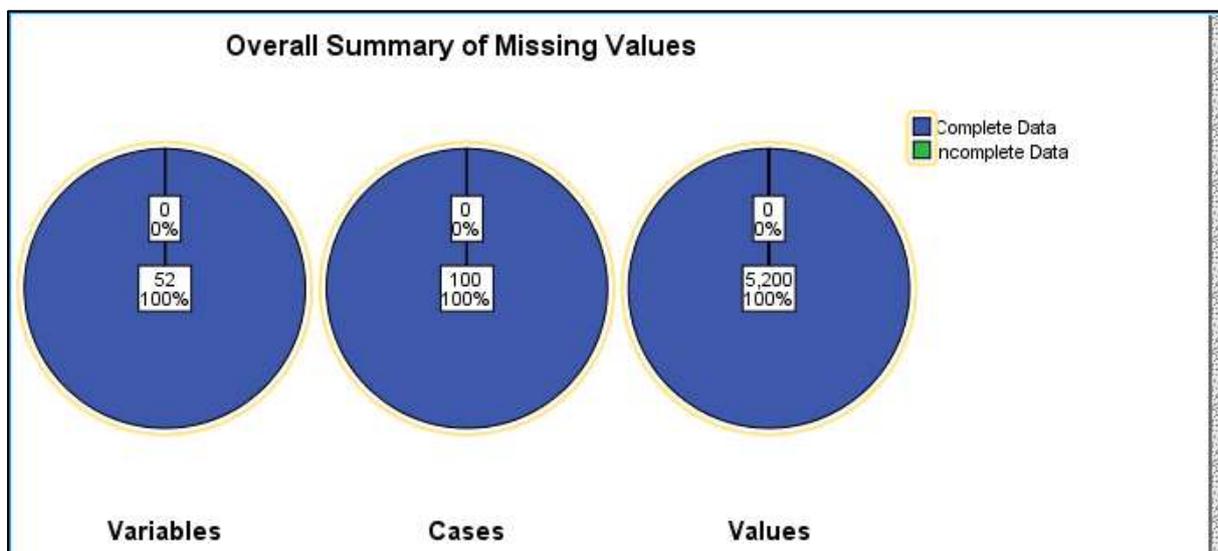


Figure 3 shows overall summary of missing values

Ethics of Study

The ethics of the research paper is also an important aspect in the research process, as it is designed to ensure that participants agreed that their personal information will be protected and used

for academic purposes. All data provided by the participants is confidential and private. Only the researcher and the supervisor will have access to all the information and all the data will be discarded once all the analysis is finished.

Data Collection Procedure

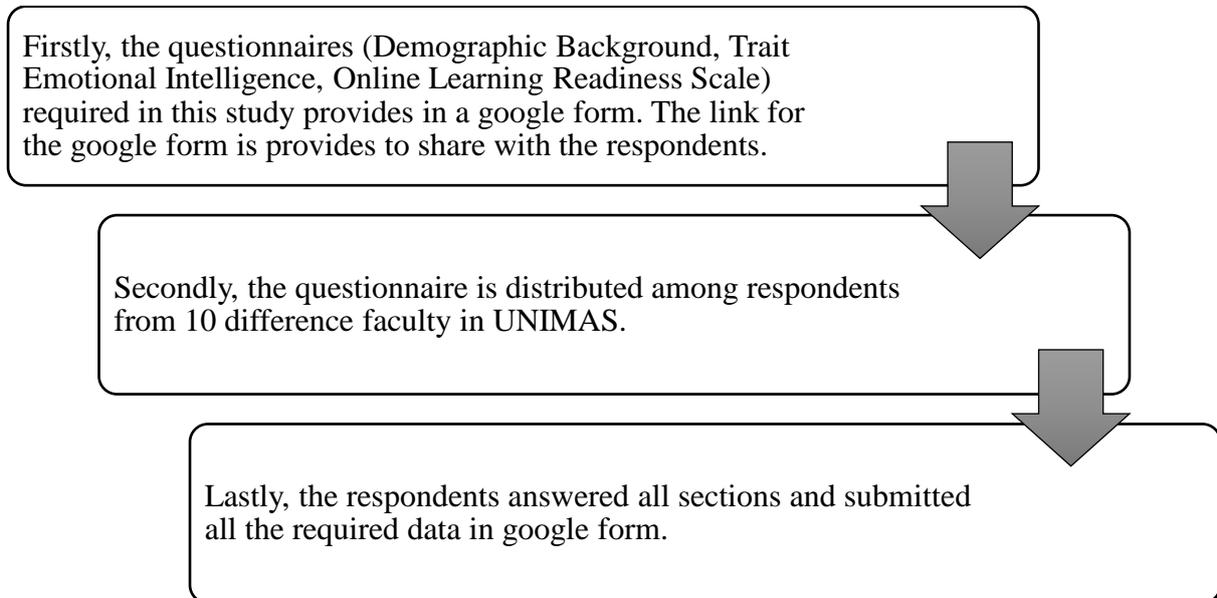


Figure 4 shows data procedure

Figure 4 represents the process of data collection procedure to collect the required information in the research. Data was collected from ten (10) faculties that is available in UNIMAS which are Faculty of Computer Science and Information Technology (FCSIT), Faculty of Art and Creative (FACA), Faculty of Engineering (FE), Faculty of Cognitive Sciences and Human Development (FCSHD), Faculty of Social Science and Humanities (FSSH), Faculty of Economic and Businesses (FEB), Faculty of Resource Science and Technology (FRST), Faculty of Medicine and Health (FMH), Faculty of Language and Communication (FLC), Faculty of Language and Communication (FLC) and Faculty of Built Environment (FBE). There are three sections needed to answer, namely Section A, B and C which is demographic background, Trait EI and Online Learning Readiness Scale. The questionnaires will be distributed among respondents via Whatsapp.

Data Analysis

For data analysis, this study used the Statistical Package for Social Sciences (SPSS) to analyze the collected data from the questionnaire used. The collected data will be analyzed using Pearson correlation, independent t-test and one way ANOVA.

Hypotheses	Analysis
H ₁ 1: There is a significant relationship between well-being and online learning readiness	Pearson Correlation
H ₁ 2: There is a significant relationship between self-control and online learning readiness	Pearson Correlation
H ₁ 3: There is a significant relationship between emotion and online learning readiness	Pearson Correlation
H ₁ 4: There is a significant relationship between social skills and online learning	Pearson Correlation
H ₁ 5: There is a significant difference in online learning readiness based on gender	Independent T-Test
H ₁ 6: There is a significant difference in online learning readiness based on the educational background.	One way ANOVA

Table 6 shows the analysis used to interpret hypotheses

CHAPTER FOUR

FINDINGS

Socio Demographic

Demographic background	Frequency (N)	Percentage (%)
Gender:		
Male	48	48
Female	52	52
Year of study		
Year 1	21	21
Year 2	31	31
Year 3 and above	48	48
Educational background		
Sijil Tinggi Pelajaran Malaysia/Sijil Tinggi Agama Malaysia (STPM/STAM)	55	55
Matriculation	14	14
Foundation	16	16
Diploma	15	15
Faculty		
Faculty of Computer Science and Information Technology (FCSIT)	3	3
Faculty of Art and Creative (FACA)	7	7
Faculty of Engineering (FE)	8	8
Faculty of Cognitive Sciences and Human Development (FCSHD)	38	38

Faculty of Social Science and Humanities (FSSH)	16	16
Faculty of Economic and Businesses (FEB)	5	5
Faculty of Resource Science and Technology (FRST)	8	8
Faculty of Medicine and Health (FMH)	4	4
Faculty of Language and Communication (FLC)	8	8
Faculty of Built Environment (FBE)	3	3

Table 7 shows the frequency and percentage of demographic background

Table 7 shows the frequency and percentage of demographic background for gender, year of study, educational background and faculties involved in this study. The brief explanation will be explained in each pie chart accordingly.

Gender

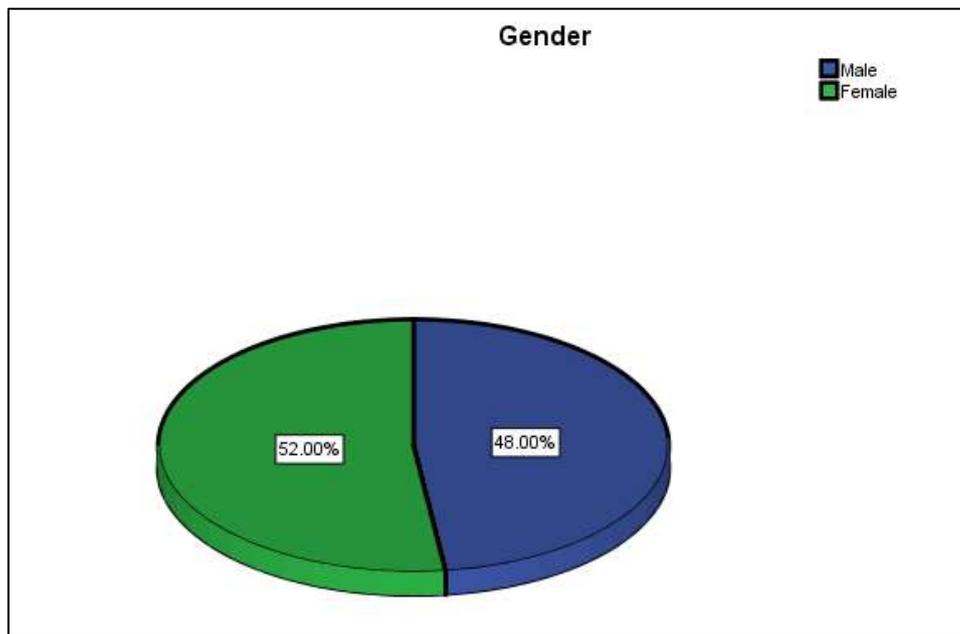


Figure 5 shows pie chart of gender

Figure 5 shows 100 participants that participated in this study. There are 48% of male which is equivalent to 48 participants of male and the remaining 52% is equivalent to 52 participants of female.

Year of Study

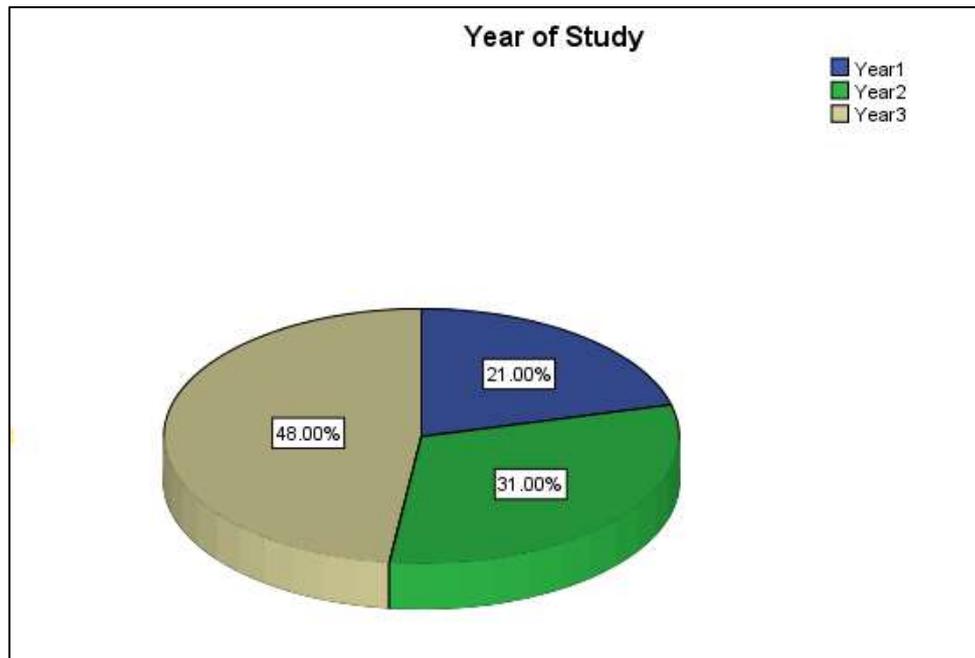


Figure 6 shows pie chart of year of study

Another part in demographic background in this study is the year of study. Based on Figure 6, most of the students participating in this study are year 3 and above. There are 48 participants which is 48% of them are third year and above students. While, there are 31% of second year students involved in this study which is equal to 31 students. The left amount of students, which is 21 students, are from first year study.

Educational Background

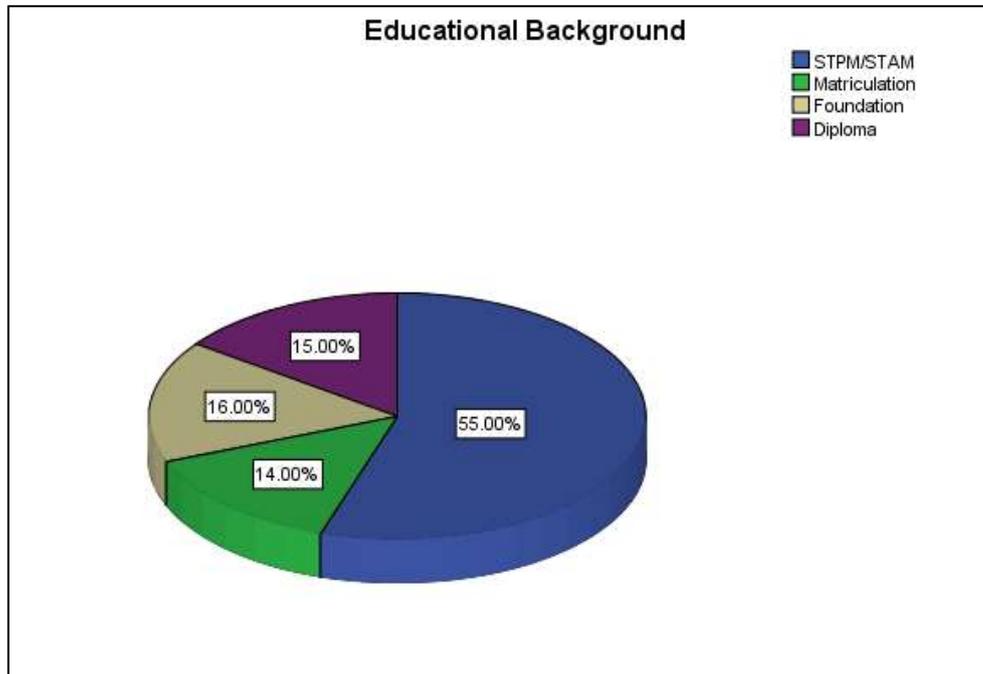


Figure 7 shows pie chart of educational background

Educational background is one of the independent variables in this study. Based on Figure 7, 55% or a total of 55 students involved in this study are students who took Sijil Tinggi Pelajaran Malaysia(STPM) or Sijil Tinggi Agama Malaysia(STAM) before entering university. While 16% or 16 students participated are students with Foundation educational background. Another educational background included in this study are Diploma and Matriculation which is 15% and 14% or 15 and 14 students respectively.

Faculty

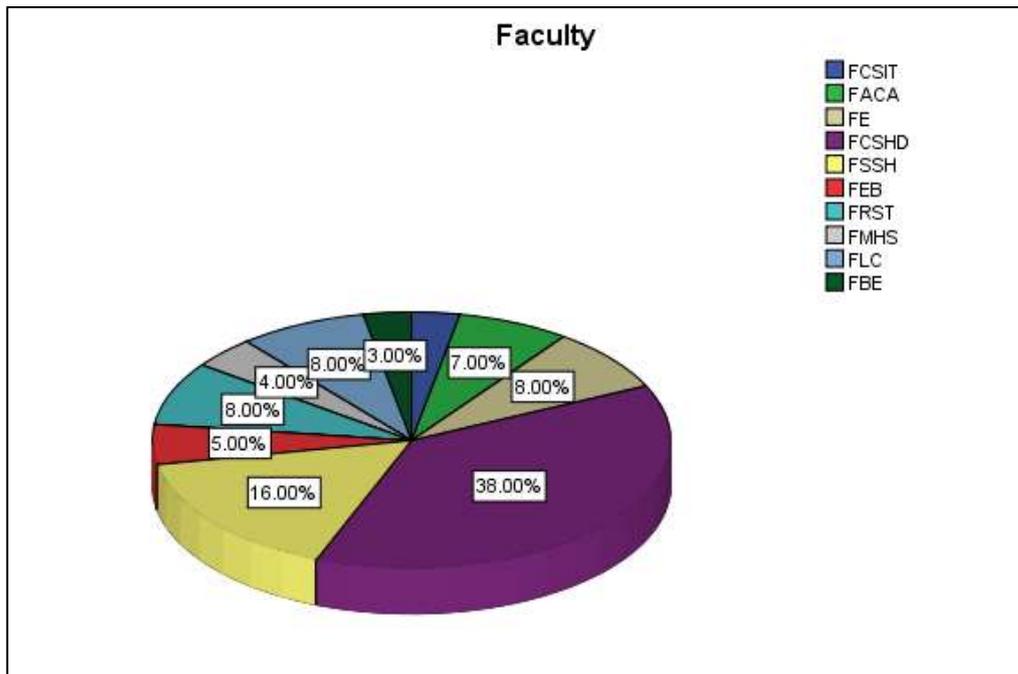


Figure 8 shows pie chart of faculty involved in this study

There are one hundred (100) respondents that participated in this research from different faculties. Based on Figure 8, most of the students involved in this study which is 38% or 38 students are from the Faculty of Cognitive Sciences and Human Development. The second highest respondents participating in this study is from the Faculty of Social Science and Humanities which is 16% or 16 students. The Faculty of Engineering, Resource Science and Technology, and Language and Communication have the same amounts of participants which is equal to 8% or 8 students from each faculty. Other faculty like Faculty of Creative and Art, Economic and Business, and Medicine and Health Science have 7%, 3%, and 4% which is equal to 7, 3, and 4 students respectively. The Faculty of Computer Science and Information Technology, and Built Environment have the same amounts of respondents which is 3% or 3 students each.

Findings

H₁1: There is a significant relationship between well-being and online learning readiness among undergraduate students in UNIMAS.

Correlations			
		Mean_WBeing	Mean_OLR
Mean_WBeing	Pearson Correlation	1	.234 [*]
	Sig. (2-tailed)		.019
	N	100	100
Mean_OLR	Pearson Correlation	.234 [*]	1
	Sig. (2-tailed)	.019	
	N	100	100

*. Correlation is significant at the 0.05 level (2-tailed).

Table 8 shows the results of pearson correlation between well-being and online learning readiness

To test the relationship between well-being and online learning readiness using alternate hypothesis (H₁1), Pearson correlation test is being used.

Table 8 shows the result of the relationship between well-being sub-dimension of trait emotional intelligence and online learning readiness for a sample of population for 100 participants, where the result shows positive correlation ($r=0.213$). The results show that the p -value = 0.019 less than $\alpha = 0.05$. Based on the result in Table 1 the alternate hypothesis that states “there is a significant relationship between well-being and online learning readiness among undergraduate students in a public university in Sarawak” has been accepted.

Students with higher well-being will be more satisfied, happy and fulfilled. This can help them to achieve better online learning and prepare themselves for whatever might happen during online class. According to a study by Sfeatcu et. al (2014) stated in their study that the Oxford English Dictionary describes well-being as a state to be relaxed, comfortable

and secure. In other words, if we maintain a positive attitude, we tend to have stronger psychological well-being. Adequate approaches impact on preparation for online learning necessary for independent thinking, such as self-regulation, self-management yet self-motivation, too (Fakinlede, Yusuf, Mejabi & Adegbiya, 2014). Positive attitudes of students' help them to prepare better in online learning class and it is associated with self-confidence. According to Pettersson (2018), interview process found that their psychological well-being was positively affected in various ways, which include increased self-confidence as well as social communication.

H₁₂: There is a significant relationship between self-control and online learning readiness among undergraduate students in UNIMAS.

Correlations			
		Mean_OLR	Mean_SControl
Mean_OLR	Pearson Correlation	1	.213*
	Sig. (2-tailed)		.033
	N	100	100
Mean_SControl	Pearson Correlation	.213*	1
	Sig. (2-tailed)	.033	
	N	100	100

*. Correlation is significant at the 0.05 level (2-tailed).

Table 9 shows the results of pearson correlation between self-control and online learning readiness

To test the relationship between self-control and online learning readiness using alternate hypothesis (H₁₂), Pearson correlation test is being used.

Based on Table 9, it shows the overall mean and standard deviation for self-control sub-dimension of trait emotional intelligence, online learning readiness and result of Pearson Correlation test. The result shows positive correlation (r=0.213) between self-control and online learning readiness among undergraduate students in one public university in Sarawak

where the p-value = 0.033 less than $\alpha = 0.05$. This result shows that there is a significant relationship between self-control and online learning readiness among undergraduates.

Therefore, research hypothesis H₁₂ is accepted.

The positive correlation shows that self-control influences students' readiness in online learning. The concept of learning control includes guiding ones personal academic performance, and be able to sustain learning without even being distracted by other internet habits, and repeating on-line kinds of material of their educational needs (Chung, Noor & Mathew, 2020). Self-directed learning and student control have been shown to be significant determinants in readiness when the studies have been checked. (Demir Kaymak & Horzum, 2013).

H₁₃: There is a significant relationship between emotion and online learning readiness among undergraduate students in UNIMAS.

Correlations			
		Mean_OLR	Mean_Emotion
Mean_OLR	Pearson Correlation	1	.069
	Sig. (2-tailed)		.498
	N	100	100
Mean_Emotion	Pearson Correlation	.069	1
	Sig. (2-tailed)	.498	
	N	100	100

Table 10 shows the results of pearson correlation between emotion and online learning readiness

To test the relationship between emotion and online learning readiness using alternate hypothesis (H₁₃), Pearson correlation test is being used.

Table 10 shows the overall mean and standard deviation for emotion sub-dimension of trait emotional intelligence, online learning readiness and Pearson Correlation result. The

result shows positive correlation between emotion and online learning readiness among undergraduates. It is also showing a weak relationship because the coefficient ($r=0.069$) is low. The p value obtained in the table also exceeds α ($p=0.05$) which is $p=0.498$. The result of Table 10 shows that there is no connection for both emotion and online learning preparedness among university students. Therefore, research hypothesis H₁₃ is rejected.

The results from this study showed that emotional sub-dimension of trait EI was not significantly linked to students' readiness in an online learning environment. In the study done by Engin (2017), emotion sub-dimension of trait EI was less significant in online learning readiness.

H₁₄: There is a significant relationship between social skills and online learning readiness among undergraduate students in UNIMAS.

Correlations			
		Mean_OLR	Mean_Social
Mean_OLR	Pearson Correlation	1	.252*
	Sig. (2-tailed)		.011
	N	100	100
Mean_Social	Pearson Correlation	.252*	1
	Sig. (2-tailed)	.011	
	N	100	100

*. Correlation is significant at the 0.05 level (2-tailed).

Table 11 shows the results of pearson correlation between social skills and online learning readiness

To test the relationship between social and online learning readiness using alternate hypothesis (H₁₄), Pearson correlation test is being used.

Table 11 shows the overall mean and standard deviation for social sub-dimension of trait emotional intelligence, online learning readiness and Pearson Correlation result. The

results show positive correlation ($r=0.252$) between social and online learning readiness among undergraduates where the p value = 0.011 less than $\alpha = 0.05$. This result shows that there is a relationship between social and online learning readiness among undergraduates. Therefore, research hypotheses H_{14} is accepted.

Students with high social skills have better readiness in online learning. Their high social skills make them more comfortable to interact using online platforms. It can therefore be believes that students with strong social and well-being skills could be more effective in developing others to learn behaviour patterns, such as transparency to fresh ideas, motivation to learn, learning from their own mistakes, and willing to give their own ideas with others in the virtual community (Engin, 2016).

H_{15} : There is a significant difference in online learning readiness based on gender among undergraduate students in UNIMAS

Independent Samples Test										
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
Mean_OLR	Equal variances assumed	.271	.604	2.597	98	.011	.22632	.08715	.05336	.39927
	Equal variances not assumed			2.592	96.448	.011	.22632	.08732	.05301	.39963

Table 12 shows the results of Levene's test of online learning readiness based on gender

Group Statistics					
	Gender	N	Mean	Std. Deviation	Std. Error Mean
Mean_OLR	Male	48	3.9838	.44577	.06434
	Female	52	3.7575	.42567	.05903

Table 13 shows the results of Independent t-test of online learning readiness based on gender

To test the alternate hypothesis H_{15} : There is a significant difference in online learning readiness based on gender, Independent Sample t-test is used.

Table 12 and Table 13 show the overall mean of online learning readiness for male and female. An independent-samples t-test was conducted to compare online learning readiness between male and female. There was a significant difference in the online learning readiness for male ($M=3.98$, $SD=0.45$) and female ($M=3.76$, $SD=0.43$) gender; $t(98) = 2.597$, $p = 0.011$. Since the p -value = 0.011 is less than $\alpha = 0.05$, it can be concluded that the research hypothesis H_{15} is accepted. The results show that there is a significant difference in online learning readiness between male and female.

Hypothesis five (H_{15}), is accepted because the findings show a positive relationship that there is a significant difference in online learning readiness between male and female. . Compared to study conducted by Rahim, Yusoff & Latiff (2014), gender, level of study & faculty group have no impact on the overall characteristics of an effective online learning. It was supported by other research done by Rasouli, Rahbania & Attaran (2016), there was no significant difference between male and female students in their readiness to learn online. Another study done by Chung, Noor, and Mathew (2020) also found that there was no relationship between gender in online learning readiness. However, another study constructed by Basol et. al (2018) found that higher education male students have shown more readiness compared to female students in online learning environments. This study was compatible with current study. In addition, male students have a much more positive belief in depending on interactive learning technology and are more familiar with advanced tools (Adams et.al, 2018).

H_{16} : There is a significant difference in online learning readiness based on educational background among undergraduate students in UNIMAS

ANOVA					
Mean_OLR					
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.487	3	.496	2.591	.057
Within Groups	18.371	96	.191		
Total	19.859	99			

Table 14 shows the results of One Way Anova of online learning readiness based on educational background

Descriptives								
Mean_OLR								
	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
STPM/STAM	55	3.7616	.45432	.06126	3.6388	3.8844	2.78	4.78
Matriculation	14	4.0675	.29492	.07882	3.8972	4.2377	3.61	4.61
Foundation	16	3.9965	.27849	.06962	3.8481	4.1449	3.44	4.50
Diploma	15	3.9222	.59347	.15323	3.5936	4.2509	2.22	4.94
Total	100	3.8661	.44788	.04479	3.7772	3.9550	2.22	4.94

Table 15 shows the results of One Way ANOVA of online learning readiness based on educational background

A one-way between subjects ANOVA was conducted to compare the effect of educational background on online learning readiness.

There was no significant effect of educational background towards online learning readiness among undergraduates at the $p < .05$ level for $[F(3, 96) = 0.496, p = 0.057]$. From Table 14 and Table 15, it shows the p value = 0.057. However, to confirm the significant difference in online learning readiness based on educational background, post hoc test is being used. Post hoc comparisons using the Tukey HSD test indicated that the mean score for Diploma educational background ($M=3.92, SD=0.59$) was significantly different than the STPM/STAM ($M=3.76, SD=0.45$). However, the educational background for Matriculation ($M=4.06, SD=0.29$) and Foundation ($M=3.99, SD=0.27$) was significantly differ from

STPM/STAM and Diploma. From the post hoc test, it was determined that there are inconsistent results of educational background. Therefore, H₁₆ has been rejected.

Although students that enter university have a different academic background, it is not related with students' readiness in online class. From study conducted by Adams et. al (2018), postgraduates students are more likely to use online learning compared to undergraduates students. These findings were similar to some of the findings reported, the level of readiness of postgraduate students was higher than undergraduate learners (Rassouli, Rahbania & Attaran, 2016). Most of the study conducted was more focused to compare the readiness between undergraduates and postgraduates students.

CHAPTER FIVE

SUMMARY, CONCLUSION AND RECOMMENDATIONS

Objectives	Hypothesis	Data Analysis	Findings
To find out the relationship between well-being and online learning readiness among UNIMAS students.	There is a significant relationship between well-being and online learning readiness among undergraduate students in UNIMAS	Pearson Correlation	Hypothesis accepted
To find out the relationship between self-control and online learning readiness among UNIMAS students.	There is a significant relationship between self-control and online learning readiness among undergraduate students in UNIMAS	Pearson Correlation	Hypothesis accepted
To find out the relationship between emotion and online learning readiness among UNIMAS students.	There is a significant relationship between emotion and online learning readiness among undergraduate students in UNIMAS	Pearson Correlation	Hypothesis rejected
To find out the relationship between social skills and	There is a significant relationship between social skills and online	Pearson Correlation	Hypothesis accepted

online learning readiness among UNIMAS students.	learning readiness among undergraduate students in UNIMAS		
To compare the online learning readiness based on gender	There is a significant difference in online learning readiness based on gender among undergraduate students in UNIMAS	Independent T-test	Hypothesis accepted
To compare the online learning readiness based on educational background	There is a significant difference in online learning readiness based on educational background among undergraduate students in UNIMAS	One-way ANOVA	Hypothesis rejected

Table 16 shows the summary of the findings

The aim of this study is to scrutinize the role of Trait EI towards students' readiness in online learning. There are two instruments used to measure students' readiness in online learning based on trait EI. First instrument used is Trait Emotional Intelligence – Short Form (TEIQUÉ – SF) by Petrides (2009). While to measure students' readiness, Online Learning Readiness Scale (OLRS) by Hung, Chou, Chen, and Own (2010) is being used. Apart from identifying the role of Trait EI on student readiness in online learning, other factors are demographic background such as gender and educational background also needed in this study since it shows inconsistent results from previous study done by another researcher.

The findings of the study showed that there was a link between online learning readiness of students and trait emotional intelligence levels. To summarize the whole study, three out of four sub-dimensions of trait EI which is well-being, self-control and social skills has a significant relationship with students' readiness in online learning. While emotional sub-dimensions of trait EI have no relationship with online learning readiness. The study also indicates that there is a significant difference in online learning readiness based on gender but there is no positive relationship between undergraduate students' educational background and online learning readiness. To put it another way, as social skill, self-control skill and well-being levels are increased, the behaviors of students to demonstrate the actions that were considered to be part of online learning preparation significantly raise as well.

Melih Engin's latest research (2017) entitled "Review of Students' Online Learning Readiness Based on Their Emotional Intelligence" showed that there was a positive relationship between the readiness of students to learn online and the emotional intelligence aspect of a person. A study conducted by Berenson et. al (2008), also proved that emotional intelligence gives impact towards students achievements in an online learning environment. Emotional intelligence is also an essential personality trait that may affect one's learning process (Cornelia-ecaterina, 2017).

Well being and online learning readiness

For the first hypothesis, in a public university in Sarawak, it confirmed that there is a meaningful correlation between well-being and virtual learning readiness among undergraduates. The well-being of the students enhance their readiness in an online learning environment. Higher academic performance is predicted for students with better health and wellbeing (Brooks, 2014). Virtual learning is now a medium for students to acquire

unrestricted knowledge. Well-being is also an essential part of training a student emotionally and physically, even as the learning process should run smoothly.

The instructor may not have known that certain students may have mental health problems in their minds, such as depression, anxiety, stress and even suicide, due to some concerns they do not want to reveal. Mental health issues, also referred to as mental disease or mental illnesses, are common. A very wide variety of conditions that affect mood, thinking and behavior. Many individuals may experience signs of their mental health from time to time, so it is an issue (or a disorder) as symptoms continue on and where they impair their ability to function (Evans et. al, 2017). This is the critical stage for students to handle themselves. According to Chanfeau et. al (2013), Good self-reported health is one of the biggest indicators of high well-being, and health habits are essential to general health. Many wellness habits are also specifically related to well-being. For example, substance use and excessive gaming predict lower child well-being. Individuals with higher well-being eat more vegetables and fruit and are less likely to smoke.

Self-control and online learning readiness

It was observed that from findings, self-control sub-dimensions of trait EI have positive relationships towards students' readiness in online learning. Self-control or learner's control gives a great impact towards students' readiness in an online learning environment. Based on the results stated in Chapter 4, the willingness to take responsibility and to handle learning online as a factor that influences preparation is self-control.

The person's level of individual self-discipline (or self-control as a means of self-discipline) contributes to different social as well as private life problems (Duckworth & Seligman, 2005). Even though the learners carried their own learning process in online

learning, they also need to be more ready for any circumstances. As mentioned by Gorbunos, Kapenieks & Cakula (2016) in their study, E-learning gives more flexibility to learners, but it also includes the preparation of self-development and self-discipline. This means that self-discipline is becoming really important in ensuring that learners achieve their learning goals. It has been shown that self-discipline learners, regular exposure to collaborative e-environment resources, and diligent execution of different group work activities have made it easier to achieve better learning goals (Gorbunos, Kapenieks & Cakula, 2016). To sum up, the Nwagu, Enebechi and Odo (2018) study in Nigeria shows that there was a noticeable gap in self-control between male and female students in learning for a healthier lifestyle with male students having a higher self-control level.

Emotion and Online Learning Readiness

Another sub-dimension of trait EI is emotion that was found in this study does not have a significant relationship in online learning readiness. The research conducted out by Engin (2017) also revealed that emotion does not have a major impact on online learning readiness compared to the sub-dimensions of trait EI well-being, self-control and social skills. There also no concrete research has been done that can prove that there is no positive relationship between online learning readiness. Nonetheless, the achievement theory of emotional self-value indicates that students' motivational beliefs, perceptions of their learning environment, cognitive abilities, and other contextual variables influence students' self and value evaluations of academic circumstances, which in turn predict emotions and corresponding outcomes of learning and achievement (Marchand & Gutierrez, 2012). In this study, it was found that students' emotion does not influence their readiness in an online learning environment.

Social Skills and Online Learning Readiness

The last sub-dimensions of trait EI, social skills showed significant relationship towards students' readiness in online learning environment. Social participation is an significant aspect of enhancing learning effectiveness in any context and is one of the most significant aspects of online learning (Matanaghi, 2015). According to Lomika and Lord (2007), social presence is the viewpoint of being together with those in an online education context. Social presence is seen as a student's perception of being and belonging to a learning group (Picciano, 2002).

As a result, social skills have a significant influence on student readiness online, because if a student has high social skills, he or she will have more preparation than students who are less social in real life. Social presence is related to a need for users of technology-based communication to see one another as real people in cyberspace (Matanaghi, 2015). According to Richardson and Swan (2003), low social interaction may be a specific problem in text-based, asynchronous systems, such as online forums, contributing to impersonality and disconnection from online learning.

Online Learning Readiness Based on Gender

Last but not least, demographic backgrounds such as gender and educational background also take into account whether there is a relationship in online learning readiness. Hypothesis five (H₁₅), is accepted because the findings show a positive relationship that there is a significant difference in online learning readiness between male and female. From the previous research, the results of male and female readiness in online learning was not consistent. In this current study, it was found that there is a significant difference between male and female in online learning readiness where male students have shown more readiness compared to female students. This study was compatible with current study. Demographic

variables such as gender, academic background and internet usage, have a high impact on e-learning readiness (Naresh et. al, 2016).

Online Learning Readiness Based on Educational Background

However, the last hypothesis (H₁₆) is being rejected because the result shows that there is no significant difference in online learning readiness based on students educational background. Although students that enter university have a different academic background, it is not related with students' readiness in online class.

Conclusion

Online learning is convenient and flexible to students because it can be accessed everywhere and anytime depends on internet connection. It is flexible when time and place issues are taken into account. Every student has the convenience to choose the place and time that suits him/her (Arkorful and Abaidoo, 2015). In other words, the information can be freely accessed without limitation. However, before facing any online class, students must first prepare themselves both mentally and physically. Findings of this study have shown that one of the predictors of student preparation, which is a key factor in all areas of education, is the level of emotional intelligence of individuals in online environments.

The correlation of self-control, social skills and well-being with online learning proved that someone's readiness is associated with their personality trait. According to Noble, Wyatt, McGrath, Hoffrey and Rowling (2008), it is now well known across research studies that social and emotional skills (such as the ability to work collaboratively with others, handle one's feelings, cope with disappointments and solve problems) are an essential part of the academic achievement. If the students can manage their own progress in online learning sessions, so there would be no issues arise.

Implications of study

Some students may have a difficulty to adapt to this online class due to unusual circumstances which is totally different from blended learning. In this study, online learning refers to the condition that students are fully immersed virtually. It is necessary for researchers to investigate whether these students are ready to accept online learning in order to make a successful online learning. However, some students might have difficulties accessing certain information due to low or unstable internet connection. The results and findings seem to show that the students with personality traits (well-being, social skills and self-control) have better preparation in an online learning environment. To be more specific, the students themselves need to prepare themselves mentally and physically to receive a better online learning on their own. This study also helps lecturers to organize better learning strategies to make a better online learning that could be perceived by their students. Based on the study conducted, students can be more aware of their own personality traits as it is not only for readiness in online learning but includes other aspects.

Future research direction

It is necessary to note that the current research has certain limitations. Due to the nature of the study, all of the findings are limited to one public university in Sarawak and involved 100 students from 10 faculty which is number of students is not fixed from each faculty. Future research should involve more students so that this study can be generalized to a wider area. Other than identifying the role of trait EI towards students' readiness in online learning, it was also recommended to look into students' academic performance while using online learning compared to face-to-face learning. For future research, it may include participants' age to identify their readiness in online learning. Since education has the capability to encourage and change the way of life, the findings from this research could have

an impact on encouraging more research. Future research that builds on the findings of this study will only contribute more to the development of student success strategies that will enhance student's performance, readiness and the ability to participate in the academic process.

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APPENDIX A
RESEARCH QUESTIONNAIRE

Section A: Demographic Background

Bahagian A: Latar Belakang Demografik

This section is proposed to obtain general information regarding your background.

Please tick (/) your answer in the appropriate box.

Bahagian ini bertujuan untuk mendapatkan maklumat umum berkenaan dengan latar belakang anda.

Sila tanda (/) pada jawapan anda dalam petak yang betul.

1. Gender (*Jantina*)

Male (*Lelaki*)

Female (*Perempuan*)

2. Year of study (*Tahun pengajian*)

Year 1 (*Tahun pertama*)

Year 2 (*Tahun kedua*)

Year 3 and above (*Tahun ketiga dan ke atas*)

3. Faculty (*Fakulti*)

Faculty of Computer Science & Technology (*Fakulti Sains Komputer & Teknologi Maklumat*)

Faculty of Applied & Creative Arts (*Fakulti Seni Gunaan & Kreatif*)

Faculty of Engineering (*Fakulti Kejuruteraan*)

Faculty of Cognitive Sciences & Human Development (*Fakulti Sains Kognitif & Pembangunan Manusia*)

Faculty of Social Sciences & Humanities (*Fakulti Sains Sosial & Kemanusiaan*)

Faculty of Economics & Business (*Fakulti Ekonomi & Perniagaan*)

Faculty of Resource Science & Technology (*Fakulti Sains & Teknologi Sumber*)

Faculty of Medicine & Health Sciences (*Fakulti Perubatan & Sains Kesihatan*)

Faculty of Language & Communication (*Fakulti Bahasa & Komunikasi*)

Faculty of Built Environment (*Fakulti Alam Bina*)

4. Educational Background (*Latar belakang Pendidikan*)

Malaysian Higher School Certificate/Sijil Tinggi Agama Malaysia (*Sijil Tinggi Pelajaran Malaysia*)

Matriculation (*Matrikulasi*)

Foundation (*Asasi*)

Section B: Trait Emotional Intelligence
 Bahagian B: (Kecerdasan Trait Emosi)

Instructions: Please tick (✓) the box most appropriate that describe your feelings based on the scales given:

Arahan: Sila tandakan (✓) pada ruangan yang telah disediakan yang menerangkan perasaan anda berdasarkan skala berikut:

Strongly disagree <i>Sangat tidak setuju</i>	Disagree <i>Tidak setuju</i>	Somewhat disagree <i>Agak tidak setuju</i>	Neither agree or disagree <i>Tidak bersetuju, tidak juga setuju</i>	Somewhat agree <i>Agak setuju</i>	Agree <i>Setuju</i>	Strongly agree <i>Sangat setuju</i>
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No.	Statements/Pernyataan	1	2	3	4	5	6	7
1.	Expressing my emotions with words is not a problem for me. <i>Menyatakan emosi saya dengan kata-kata tidak menjadi masalah bagi saya.</i>							
2.	I often find it difficult to see things from another person's viewpoint. <i>Saya sering merasa sukar untuk melihat perkara-perkara dari sudut pandangan orang lain.</i>							
3.	On the whole, I'm a highly motivated person. <i>Pada keseluruhannya, saya adalah orang yang sangat bermotivasi.</i>							
4.	I usually find it difficult to regulate my emotions. <i>Saya biasanya sukar untuk mengawal emosi saya.</i>							
5.	I generally don't find life enjoyable. <i>Saya secara amnya tidak menemui kehidupan yang menyenangkan.</i>							
6.	I can deal effectively with people. <i>Saya boleh menangani orang lain dengan berkesan.</i>							
7.	I tend to change my mind frequently. <i>Saya cenderung untuk menukar minda saya dengan kerap.</i>							

8.	Many times, I can't figure out what emotion I'm feeling. <i>Banyak kali, saya tidak dapat memahami perasaan yang saya rasa.</i>							
9.	I feel that I have a number of good qualities. <i>Saya rasa saya mempunyai beberapa kualiti yang baik.</i>							
10.	I often find it difficult to stand up for my rights. <i>Saya sering merasa sukar untuk mempertahankan hak saya.</i>							
11.	I'm usually able to influence the way other people feel. <i>Saya biasanya dapat mempengaruhi bagaimana orang lain rasa.</i>							
12.	On the whole, I have a gloomy perspective on most things. <i>Pada keseluruhannya, saya mempunyai perspektif yang menyedihkan pada kebanyakan perkara.</i>							
13.	Those close to me often complain that I don't treat them right. <i>Mereka yang rapat dengan saya sering mengadu bahawa saya tidak memperlakukan mereka dengan betul.</i>							
14.	I often find it difficult to adjust my life according to the circumstances. <i>Saya sering merasa sukar menyesuaikan hidup saya mengikut keadaan.</i>							
15.	On the whole, I'm able to deal with stress. <i>Pada keseluruhannya, saya dapat menangani stres.</i>							
16.	I often find it difficult to show my affection to those close to me. <i>Saya sering merasa sukar untuk menunjukkan kasih sayang saya kepada mereka yang rapat dengan saya.</i>							
17.	I'm normally able to "get into someone's shoes" and experience their emotions. <i>Saya biasanya meletakkan diri saya dalam keadaan orang lain dan mengalami emosi mereka.</i>							
18.	I normally find it difficult to keep myself motivated. <i>Saya biasanya merasa sukar untuk mengekalkan motivasi diri saya.</i>							
19.	I'm usually able to find ways to control my emotions when I want to. <i>Saya biasanya dapat mencari cara untuk mengawal emosi saya apabila saya mahu.</i>							

20.	On the whole, I'm pleased with my life. <i>Pada keseluruhannya, saya gembira dengan kehidupan saya.</i>							
21.	I would describe myself as a good negotiator. <i>Saya menggambarkan diri saya sebagai perunding yang baik.</i>							
22.	I tend to get involved in things I later wish I could get out of. <i>Saya cenderung untuk terlibat dalam perkara-perkara yang kemudian saya ingin dapat diselesaikan.</i>							
23.	I often pause and think about my feelings. <i>Saya sering berhenti dan berfikir tentang perasaan saya.</i>							
24.	I believe I'm full of personal strengths. <i>Saya percaya saya mempunyai kekuatan peribadi.</i>							
25.	I tend to "back down" even if I know I'm right. <i>Saya cenderung untuk "mundur" walaupun saya tahu saya betul.</i>							
26.	I don't seem to have any power at all over other people's feelings. <i>Saya tidak memiliki sebarang kuasa di atas perasaan orang lain.</i>							
27.	I generally believe that things will work out fine in my life. <i>Saya secara umumnya percaya bahawa perkara-perkara akan berjalan dengan baik dalam hidup saya.</i>							
28.	I find it difficult to bond well even with those close to me. <i>Saya merasa sukar untuk bergaul baik dengan orang walaupun mereka yang rapat dengan saya.</i>							
29.	Generally, I'm able to adapt to new environments. <i>Umumnya, saya dapat menyesuaikan diri dengan persekitaran baru.</i>							
30.	Others admire me for being relaxed. Orang lain mengagumi saya kerana menjadi santai.							

Section C: Online learning readiness

Bahagian C: Kesiediaan pembelajaran dalam talian)

Instructions: Please tick (✓) the box most appropriate that describe your feelings based on the scales given:

Arahan: Sila tandakan (✓) pada ruangan yang telah disediakan yang menerangkan perasaan anda berdasarkan skala berikut:

Strongly disagree <i>Sangat tidak setuju</i>	Disagree <i>Tidak setuju</i>	Neither agree nor disagree <i>Tidak bersetuju, tidak juga setuju</i>	Agree <i>Setuju</i>	Strongly agree <i>Sangat setuju</i>
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No.	Statements/ <i>Pernyataan</i>	1	2	3	4	5
1.	I feel confident in performing the basic functions of Microsoft Office programs (MS Word, MS Excel, and MS PowerPoint). <i>Saya berasa yakin dalam melaksanakan fungsi asas program Microsoft Office (MS Word, MS Excel, dan MS PowerPoint).</i>					
2.	I feel confident in my knowledge and skills of how to manage software for online learning. <i>Saya berasa yakin dalam pengetahuan dan kemahiran saya bagaimana menguruskan perisian untuk pembelajaran dalam talian.</i>					
3.	I feel confident in using the Internet (Google, Yahoo) to find or gather information for online learning. <i>Saya merasa yakin menggunakan Internet (Google, Yahoo) untuk mencari atau mengumpulkan maklumat untuk pembelajaran dalam talian.</i>					
4.	I carry out my own study plan. <i>Saya menjalankan pelan kajian saya sendiri.</i>					
5.	I seek assistance when facing learning problems. <i>Saya mencari bantuan apabila menghadapi masalah pembelajaran.</i>					
6.	I manage time well. <i>Saya menguruskan masa dengan baik.</i>					

7.	I set up my learning goals. <i>Saya menetapkan matlamat pembelajaran saya.</i>					
8.	I have higher expectations for my learning performance. <i>Saya mempunyai harapan yang sangat tinggi untuk prestasi pembelajaran saya.</i>					
9.	I can direct my own learning progress. <i>Saya boleh mengarahkan kemajuan pembelajaran saya sendiri.</i>					
10.	I am not distracted by other online activities when learning online (instant messages, Internet surfing). <i>Saya tidak terganggu oleh aktiviti dalam talian lain ketika belajar dalam talian (mesej segera, melayari Internet).</i>					
11.	I repeated the online instructional materials on the basis of my needs. <i>Saya mengulangi bahan pengajaran dalam talian berdasarkan keperluan saya.</i>					
12.	I am open to new ideas. <i>Saya terbuka kepada idea baru.</i>					
13.	I have motivation to learn. <i>Saya mempunyai motivasi untuk belajar.</i>					
14.	I improve from my mistakes. <i>Saya memperbaiki diri sendiri melalui kesilapan lepas.</i>					
15.	I like to share my ideas with others. <i>Saya suka berkongsi idea saya dengan orang lain.</i>					
16.	I feel confident in using online tools (email, discussion) to effectively communicate with others. <i>Saya berasa yakin menggunakan alat dalam talian (e-mel, perbincangan) untuk berkomunikasi secara efektif dengan orang lain.</i>					
17.	I feel confident in expressing myself (emotions and humour) through text.					

	<i>Saya merasa yakin untuk menyatakan diri saya (emosi dan kelucuan) melalui teks.</i>					
18.	I feel confident in posting questions in online discussions. <i>Saya merasa yakin menghantar soalan dalam perbincangan dalam talian.</i>					