Emotional Intelligence and Online Learning Readiness among Students in a Technical University in Malaysia

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ABSTRACT

The main aim of this study is to investigate the influence of emotional intelligence on students' online learning readiness in a public university in Malaysia. Four hundred and ninety-six students from eight faculties at the Universiti Teknikal Malaysia Melaka (UTeM) participated in this study which was conducted fully online using Google Forms due to the pandemic issue. The students completed the Online Learning Readiness (OLR) Scale and the Trait Emotional Intelligence Scale – Short Form (TEIS-SF) to assess their online learning readiness and emotional intelligence. According to the descriptive results, all dimensions related to students' online learning readiness scored above medium mean scores, and almost all dimensions of emotional intelligence, with the exception of the social dimension, scored above-medium mean scores. Correlation analysis reveals a significant positive relationship between students' emotional intelligence and their readiness for online learning. The key findings in this study could be used to facilitate online learning by educators and students.

Keywords: Emotional Intelligence, Online Learning Readiness, Higher Education, E-Learning, Malaysian University

INTRODUCTION

Online education has become more and more popular in recent years because of its benefits over traditional, in-person classroom instruction. Time and space are no longer obstacles to learning, and the cost of education has significantly decreased (Panigrahi, Srivastava, & Sharma, 2018). For online learning success, students appreciate fundamental online modality, cognitive presence, and online social comfort; in contrast, face-to-face classrooms place a higher value on online interactive modality and instructional assistance (Wart, Ni, Medina, Canelon, Kordrostami, Zhang, & Liu, 2020). However, adjusting to a new learning method may not be smooth for all students, given that learning online requires a higher level of motivation to learn, more advanced computer literacy skills, and an up-to-date computer hardware system (Hartnett, 2016; Sun, Mao, & Yin, 2020). Therefore, understanding the level of online learning readiness among students could help to identify how online learning can be implemented. Unfortunately, there is little to know about the level of readiness to learn online among students in the Malaysian context (Tang, Chen, Law, Wu, Lau, Guan, ... & Ho, 2021).

Emotional intelligence has been highlighted to have a significant effect in the context of education (Mirmoghtadaie, Khoshnoodifar, & Mohammadi, 2020). It can be defined as "the ability to perceive accurately, appraise and express emotion; the ability to access and/or generate feelings when they facilitate

thought; the ability to understand emotion and emotional knowledge; the ability to regulate emotions to promote emotional and intellectual growth" (Mayer & Salovey, 1997). Students with high levels of emotional intelligence have shown high emotional self-awareness, high tolerance to stress, and exhibit learner control and motivation to learn. Additionally, these qualities helped in preparing the students to adapt and adjust to online learning and achieve better academic performance (Berenson, Boyles, & Weaver, 2008).

LITERATURE REVIEW

Online Learning Readiness

Online learning is another way of gaining knowledge and skills through synchronous and asynchronous learning applications which are written, communicated, active, supported, and managed with the use of internet technology (Morrison, 2003). Transactional Distance Theory (TDT) is frequently used in online learning which suggests that it is the psychological and communication space that separates the teachers and learners during structured and planned learning, rather than the temporal and physical distance (Demir Kaymak & Horzum, 2013; Moore, 1997). The separation between teachers and students may potentially lead to communication gaps hence creating psychological space for potential misunderstandings between the behaviours of instructors and those of the learners (Moore & Kearsley, 1996). Three important elements that should be considered in the transactional development between teachers and students, include dialogue, structure and learner autonomy (Moore, 1997). Dialogue refers to all forms of two-way communication between teachers and learners that helps to solve student's problem. The course structure refers to the flexibility and ability to accommodate students' needs while the learner's autonomy is the sense of independence and interdependence perceived by students throughout the course.

Different from the traditional face-to-face learning method, the demands on teachers and students are also different whereby preparation required for an online learning environment is very distinct from the face-to-face learning environment (Buchanan, 1999). To achieve desired educational goals, one has to have a combination of several personal, psychological, motivational, and cognitive factors on top of computer skills. Students need to acquire skills to monitor learning progress, manage time and find peer support (Blocher, De Montes, Willis, & Tucker, 2002). Self-regulatory functions such as emotional regulation, self-efficacy and internal locus of control are essential elements in online learning success (Holcomb, King, & Brown, 2004; Wang & Newlin, 2002; Albritton, 2003).

Therefore, the objective of this study is to explore the relationship between emotional intelligence and online learning readiness among university students, focusing on how emotional intelligence dimensions influence students' preparedness for online education in a Malaysian context. Given the global shift toward digital education, accelerated by the COVID-19 pandemic, understanding these factors is essential for enhancing the effectiveness of online learning. This study addresses a critical gap in the Malaysian higher education context by providing insights into how emotional intelligence can be leveraged to improve online learning readiness, thereby supporting the design of targeted interventions to foster student success in digital learning environments

Emotional Intelligence

Past literature suggested different views on emotional intelligence and its contribution to academic success. First, individuals with high levels of emotional intelligence were found to develop a higher academic motivation (Naik & Kiran, 2018) and have shown a positive impact on goal achievement, time management and assertive communication contributing to academic success (Nelson, 2003). On the contrary, another study has found no significant relationship between emotional intelligence and academic achievement (Rahimi, 2016). Researcher argues that emotional intelligence is related to capacity in interpersonal communication, which is different from academic achievement which is related to memory capacity and personal learning.

The Relationship Between Emotional Intelligence and Online Learning Readiness

Several studies have confirmed the significant positive relationship between emotional intelligence, and online learning readiness (Engin, 2017; Koç, 2019; Alenezi, 2020). The findings suggested that emotional intelligence does play a significant role in online learning readiness. The subscales of emotional intelligence such as social skills, well-being and self-control skills have a significant impact on online learning readiness (Engin, 2017). These factors predict 51 percent of the online learning readiness level, with social skills and well-being having higher predictive power. The subscales of social skills and well-being have shown students displaying higher levels of confidence in online communication self-efficacy behavior such as asking questions and using online communication tools to learn. The COVID-19 pandemic has forced students to migrate fully from traditional classrooms to online platforms.

A plethora of studies were conducted on online learning among university students in Malaysia which focused on demographic factors and readiness to learn, issues and challenges, and intention to continue with online platforms (Chung, Subramaniam, & Dass, 2020), the impact of personal qualities on online learning (Lau & Shaikh, 2012), and e-readiness for both learners and tutors (Kaur & Abas, 2004). However, there is a lack of studies that focus on emotional intelligence and online learning readiness. Therefore, this paper intends to discuss the influence of emotional intelligence on online learning readiness among students in a public university in Malaysia.

METHODOLOGY

The current study adopts a quantitative method using correlational research to explore the relationship between emotional intelligence and online learning readiness among university students (Creswell, 2009). A simple random sampling method was employed in recruiting the participants. 496 bachelor students from eight faculties in Universiti Teknikal Malaysia Melaka (UTeM) have participated in the study. A self-report questionnaire was distributed via Google form and all participations were on a voluntary basis. Informed consents were distributed and obtained from participants before filling up the survey form. Additionally, to safeguard the confidentiality of participants, no identifying information were requested.

Descriptive Analyses Results

The Online Learning Readiness (OLR) Scale developed by Hung, Chou, Chen, and Own (2010) and the Trait Emotional Intelligence Scale – Short Form (TEIS-SF): TEIS-SF developed by Petrides, Frederickson, and Furnham (2004) was adopted in the study. The OLR consists of 5 domains, namely computer/internet self-efficacy (CIS), self-directed learning (SDL), learner control (LC), motivation for learning (MFL), and online communication self-efficacy (OCS). Cronbach alpha coefficient was used to calculate the internal consistency reliability of the Online Learning Readiness (OLR) scale. The TEIS-SF, which is based on their conceptualisation of emotional intelligence as a "personality trait," is a scale designed to assess an individual's self-perception of her or his emotional efficacies.

Table 1 shows the reliability coefficients for the Online Learning Readiness Scale as determined by this study's analyses.

Scale	Score
Computer/Internet Self-efficacy (CIS)	0.803
Self-directed Learning (SDL)	0.844
Learner control (LC)	0.723
Motivation for Learning (MFL)	0.831
Online Communication Self-efficacy (OCS)	0.803

Table 2 presents the reliability coefficients of the Trait Emotional Intelligence Scale – Short Form (TEIS-SF) for the current study.

Scale	Score
Well-being	0.815
Self-control	0.677
Emotional	0.804
Social	0.763

Table 3 shows the number of participants, possible minimum and maximum points, mean scores, and standard deviation points for the students' Online Learning Readiness and dimensions. The level of readiness among the students is indicated by the mean score. Higher mean scores indicate a greater level of students' readiness. All mean scores are above-medium for online learning readiness, ranging from 3.580 to 4.159 on a 5-point Likert rating scale, indicating that students are prepared to participate in online learning.

Table 3

Dimensions	N	Min.	Max.	Mean	SD
Computer/Internet Self-efficacy (CIS)	496	1	5	4.159	0.627
Self-directed Learning (SDL)	496	1	5	3.803	0.710
Learner control (LC)	496	1	5	3.580	0.783
Motivation for Learning (MFL)	496	1	5	3.982	0.701
Online Communication Self-efficacy (OCS)	496	1	5	3.848	0.832

Table 4 presents the number of participants, possible minimum and maximum points, mean scores, and standard deviation points for the students' emotional intelligence and emotional intelligence sub-dimensions. Similarly, the level of emotional intelligence among the students is indicated by the mean score. Higher mean scores indicate a greater level of emotional intelligence. Almost all mean scores are above-medium for the level of emotional, ranging from 3.884 to 4.884 on a 7-point Likert scale rating, indicating that students are prepared to possess a high level of emotional intelligence except for the Social dimension, at the 3.252 mean score.

Table 4

Dimensions	N	Min.	Max.	Mean	SD
Well-being	496	1	7	4.884	0.627
Self-control	496	1	7	4.998	0.710
Emotional	496	1	7	3.884	0.783
Social	496	1	7	3.252	0.701

Correlation Analysis Results

Correlation analysis results were conducted to determine the relationships between students' online readiness levels and emotional intelligence levels. Table 5 shows that there is a significant positive relationship between the trait emotional intelligence level of social skills and online readiness levels of self-efficacy in online communication.

Table 5

Dimensions	OLR	EI
Online Learning Readiness (OLR) Sig. (2-tailed) N	1 496	0.340** .000
Emotional Intelligence Sig. (2-tailed) N	0.340** .000	1 496

CONCLUSION

Online learning readiness and emotional intelligence relate to the ability to deal with the challenges of an online learning environment. Effective online learners can navigate such tasks such as term papers, group projects, and completing research in a social networking environment. According to the study's findings, the students have above mean scores for almost all elements of online learning readiness and emotional intelligence, indicating a high level of online learning mastery. The students' above-medium mean score could be attributed to the students' prolonged experience of having to adapt to learning in an online mode due to the pandemic. Adjustments and adaptations, whether mental or physical, were required for students to successfully navigate the challenges of being an online learner, especially during the early stages of the pandemic.

Due to the sudden transition in the mode of study, from a physical face-to-face environment to a completely virtual environment, adjustments and adaptations were required. As a result, these same students are required to be able to adjust and adapt in real-time. Fortunately, before the pandemic, Universiti Teknikal Malaysia Melaka (UTeM) through its Learning Technology Resource Centre, has been preparing the lecturers and students for an online learning environment through the development and implementation of UTeM ULearn. UTeM ULearn is a learning management system (LMS) developed more than 10 years ago using the Moodle platform to inculcate online learning in UTeM. Through UTeM ULearn, the lecturers are encouraged to implement hybrid and embedded learning, physical as well as online. Having early exposure and experience of learning in an online mode, albeit partially, could also contribute to the above-medium mean score of the students at Universiti Teknikal Malaysia Melaka (UTeM).

Given the reality of the new normal, it is expected that having emotional intelligence in dealing with online learning will undoubtedly aid in developing online learning readiness among students. When dealing with issues and challenges while learning online, emotional intelligence could provide students with mental capability in terms of resilience and preparedness. Prolonged hours of isolation and lack of interpersonal communication, as well as technical issues with the Internet such as connectivity and accessibility, are among the issues and challenges faced by students, which necessitate strong mental capacity and emotional intelligence for them to be effective online learners. As a result, there is an urgent need to assist students in developing their emotional intelligence to prepare them for the future ubiquity of online learning.

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BIBLIOGRAPHY

1. Albritton, M. D. (2003). The moderating effects of a technology-mediated learning environment on student locus of control, conscientiousness, satisfaction and performance. Paper presented at the 2003 Southern Management Meeting, Clearwater, FL.
2. Alenezi, A. M. (2020). The relationship of students' emotional intelligence and the level of their readiness for online education: A contextual study on the example of University Training Saudi Arabia. The Education and Science Journal, 22(4), 1-15.
3. Berenson, R., Boyles, G., & Weaver, A. (2008). Emotional intelligence as a predictor of success in online learning. The International Review of Research in Open and Distance Learning, 9(2), 1-17.
4. Blocher, J. M., De Montes, L. S., Willis, E. M., & Tucker, G. (2002). Online learning: Examining the successful student profile. Journal of Interactive Online Learning, 1(2), 1-17.
5. Buchanan, E. A. (1999). Assessment measures: Pre-tests for successful distance teaching and learning. Online Journal of Distance Learning Administration, 2(4).
6. Chung, E., Subramaniam, G., & Dass, L. C. (2020). Online learning readiness among university students in Malaysia amidst Covid-19. Asian Journal of University Education, 16(2), 46-58.
7. Creswell, J. W. (2009). Research design: Qualitative, quantitative, and mixed method approaches (3rd ed.). Sage Publications.
8. Demir Kaymak, Z., & Horzum, M. B. (2013). Relationship between online learning readiness and structure and interaction of online learning students. Educational Sciences: Theory and Practice, 13(3), 1792-1797.
9. Engin, M. (2017). Analysis of students' online learning readiness based on their emotional intelligence level. Universal Journal of Educational Research, 5(12A), 32-40.
10. Hartnett, M. (2016). The importance of motivation in online learning. In Motivation in Online Education (pp. 1-14). Springer.
11. Holcomb, L. B., King, F. B., & Brown, S. W. (2004). Student traits and attributes contributing to success in online courses: Evaluation of university online courses. Journal of Interactive Online Learning, 2(3), 1-11.
12. Hung, M. L., Chou, C., Chen, C. H., & Own, Z. Y. (2010). Learner readiness for online learning: Scale development and student perceptions. Computers & Education, 55(3), 1080-1090.
13. Kaur, K., & Abas, Z. W. (2004). An assessment of e-learning readiness at the Open University Malaysia. Paper presented at the International Conference on Computers in Education (ICCE2004), Melbourne, Australia, 1017-1022.
14. Koç, S. E. (2019). The relationship between emotional intelligence, self-directed learning readiness and achievement. International Online Journal of Education and Teaching, 6(3), 672-688.
15. Lau, C. Y., & Shaikh, J. M. (2012). The impact of personal qualities on online learning readiness at Curtin Sarawak Malaysia (CSM). Educational Research and Reviews, 7(20), 430-444.
16. Mayer, J. D., & Salovey, P. (1997). What is emotional intelligence? In P. Salovey & D. J. Sluyter (Eds.), Emotional development and emotional intelligence: Educational implications (pp. 3-34). Harper Collins.
17. Mirmoghtadaie, Z., Khoshnoodifar, M., & Mohammadi, S. M. R. (2020). Virtual education based on emotional intelligence components and e-learning readiness. Journal of Advanced Pharmacy Education & Research, 10(S4), 162-167.
18. Moore, M. (1997). Theory of transactional distance. In D. Keegan (Ed.), Theoretical principles of distance education (pp. 22-38). Routledge.
19. Moore, M., & Kearsley, G. (1996). Distance education: A systems review. Wadsworth Publishing Company.
20. Morrison, D. (2003). E-learning strategies: How to get implementation and delivery right first time. John Wiley & Sons.
21. Naik, D., & Kiran, D. A. (2018). Emotional intelligence and achievement motivation among college students. Indian Journal of Health and Wellbeing, 9(1), 86-88.

22. Nelson, K. G. (2003). The Hawaii time management scale and health-related behaviours (Unpublished doctoral dissertation). University of Hawaii at Manoa.

23. Panigrahi, R., Srivastava, P. R., & Sharma, D. (2018). Online learning: Adoption, continuance, and learning outcome—A review of literature. International Journal of Information Management, 43, 1-14.

24. Petrides, K., Frederickson, N., & Furnham, A. (2004). The role of trait emotional intelligence in academic performance and deviant behaviour at school. Personality and Individual Differences, 36(2), 277-293.

25. Rahimi, M. (2016). The relationship between emotional intelligence, self-esteem, gender and educational success. Management Science Letters, 6, 481–486.

26. Sun, B., Mao, H., & Yin, C. (2020). Male and female users' differences in online technology community based on text mining. Frontiers in Psychology, 11, 1-10.

27. Tang, Y. M., Chen, P. C., Law, K. M., Wu, C. H., Lau, Y. Y., Guan, J., ... & Ho, G. T. (2021). Comparative analysis of students' live online learning readiness during the coronavirus (COVID-19) pandemic in the higher education sector. Computers & Education, 168, 1-15.

28. Wart, M., Ni, A., Medina, P., Canelon, J., Kordrostami, M., Zhang, J., & Liu, Y. (2020). Integrating students' perspectives about online learning: A hierarchy of factors. International Journal of Educational Technology in Higher Education, 17.

29. Wang, A. Y., & Newlin, M. H. (2002). Predictors of web-student performance: The role of self-efficacy and reasons for taking an online class. Computers in Education, 18(2), 151-161.