ISEBA 2022
International Symposium & Exhibition on Business and Accounting 2022

ASSESSING PERSONAL ATTRIBUTES AND VIRTUAL LEARNING ENGAGEMENT DURING PANDEMIC AMONG ACCOUNTING UNDERGRADUATES

Juliana Anis Ramli (a)*, Khairul Nizam Surbaini (b)
*Corresponding author

(a) Universiti Tenaga Nasional, Malaysia, Juliana@uniten.edu.my
(b) Khairul Nizam Surbaini, Universiti Tenaga Nasional, Malaysia, NizamK@uniten.edu.my

Abstract

The aftermath of the Covid-19 pandemic has given various implications to every aspect of human activities, and it goes without exception to the education field. In an attempt to mitigate the rampant infection of the contagious disease, the learning mode has been shifted from the traditional classrooms to the unusual online learning experiences. Given the students come from all walks of life, they may have their own perception of the ways classes are conducted via virtual mode during the pandemic. This study aims to investigate the relationship between the students' personal characteristics and their participation in online learning during the pandemic and to determine whether there are any notable discrepancies between these variables. A self-administered questionnaire has been virtually distributed to the accounting undergraduate students at one of the esteemed government-linked universities (GLUs), which aims to gather their opinions on their engagement in online learning during the Covid-19 pandemic. The results revealed that there are some variations that occur in online learning engagement during the pandemic among accounting undergraduates based on their different personal and geographical attributes. Further analyses of the findings are discussed in this research study.

Keywords: Personal attributes, online learning engagement, accounting, undergraduates, pandemic

1. Introduction

The COVID19 pandemic has badly affected the normal functioning of various activities worldwide, including learning and education aspects. This unusual experience goes without exception for university undergraduates, as the austerity of the pandemic has led the students' learning engagement has shifted from the physical classroom learning to the virtual learning environment. This is due to the traditional learning method is no longer appropriate to be undertaken given that the Covid-19 disease can be easily transmitted through the direct and indirect physical contacts. Thus, the virtual learning allows the students to experience the learning process through the appropriate online learning platform that is determined by the respective university and/or lecturers regardless the students' whereabouts as long as the education and learning process can be well-pursued during the pandemic (Azizan, 2010; Peltier et al., 2007; Selvanathan et al., 2020).

In the context of accounting program in Malaysian university, the accounting program is under the purview and regulation of Malaysia Institute of Accountants (MIA). Being as one of the eminent GLUs in Malaysia, the accounting program of the studied university plays important roles in providing better education services to the community by complying to the MIA's requirements to ensure that the outcomes of the accounting program is well-recognized by the potential employers and enable to produce for the future qualified accountants. Therefore, in a substitution to the traditional physical learning, the learning process for accounting undergraduates can be continuously conducted through online learning environment, either in a mode of synchronous or asynchronous of online learning although the worldwide has been hit by the lethal contagious disease. Since the conducted online learning environment is remote in nature and requires for strong network connectivity, there might be some challenges and precarious experiences faced by the students with various family backgrounds and geographical attributes (Bhuasiri et al., 2012). The virtual learning engagement among accounting undergraduates during the pandemic phase may be varied according to their personal attributes. Hence, this study attempts to examine whether the students' personal attributes have effects on their online learning engagement during pandemic and to examine whether there are significant disparities exist between the students' personal characteristics and their virtual learning engagement. Hence, this study aims to gain insightful understanding on the students' online engagement in higher-education learning sessions during the pandemic.

2. Literature Review

The adoption of this new experiential learning environment has made the pandemic-stricken students find some difficulties to make adjustment with the engagement of learning process through home-based/online setting (Agarwal & Kaushik, 2020; Baber, 2019). Some students have perceived that home-based or online learning may not be effective and it was burdensome as the students felt lack of motivation and less interest towards virtual learning since they never engage with such online learning experience and find difficulty to adapt with the new learning ambience (Smart & Cappel, 2006; Song et al., 2004). Besides, Kanuka and Jugdev (2006) also stated that the nature of the online learning in which the students' whereabouts are away from each other, such remote learning ambience could make the students feel of remoteness and disconnectedness that may increase the student dropout rate and may reduce the motivation

to learn (Inoue, 2007), unless if there are initiatives taken by the lecturers/instructors to resonate positive motivation and spur interest among the students through using proper learning tools/devices, appropriate online learning platform, attractive learning contents and delivery by the lecturers/instructors (Azhari & Ming, 2015; Peltier et al., 2007).

It is also important to note that the online learning engagement is conducted through an appropriate platform which is subject to the discretion of respective higher-learning institution to prepare for their students. The interaction for online learning engagement during pandemic can be taken place either in the real-time (synchronous) or non-concurrent time (asynchronous) settings. The different design of time setting would require different tools of learning, for instances synchronous tools (video conferencing, audio channels, online lecture/discussion rooms) and asynchronous tools (e-mail, discussion boards) (Alamri & Tyler-Wood, 2017). In the accounting programme's context, most of the subjects taken by the students are related to the calculations and call for appropriate learning tools/devices that allow for instructors/lecturers to provide details deliberations on the technical procedures and calculations for the students to comprehend. In this regard, the instructors/lecturers play crucial roles to be adept in both subject contents and technological learning tools and procedures to ascertain that their remote teaching delivery for their students is effective (Bocchi et al., 2004; Conaway et al., 2005; Drago & Peltier, 2004). Hence, a conducive virtual interaction between learner-instructor is very important especially in this online learning environment through various types of digital communication methods (i.e., emails, video calls, messaging) in a way to facilitate the students virtually (Ku et al., 2013). In a similar vein, Alqurashi (2019) also suggested that learner-content and learner-instructor interactions are significant predictors to student perceived learning and satisfaction, except for learner-learner interaction.

Even though the unwavering efforts have been rendered by the instructors/lecturers, however it is important to take into consideration for any plights and challenges faced by the students during the online learning engagement. Hailing from different personal backgrounds and geographical attributes, the students may find difficulty in network connectivity, technological accessibility, availability of learning devices and financial capability that are very crucial to realise the engagement of online learning. The assertion has been supported by Adnan and Anwar (2020) that advocated that the aforementioned two major challenges in online learning environment are technological accessibility Both informal interaction (lack of time for instructor feedback, group study, and campus socialisation) and formal interaction (lack of internet facilities, improper student-teacher interaction, and ineffective technology) favour traditional classroom learning over online learning engagement, particularly in the context of developing nations. According to Selvanathan et al. (2020), geographical and individual characteristics also significantly influence how students view their virtual learning experiences, with students in urban regions benefiting more from such a remote learning environment than those who were rural dwellers. Likewise, Song et al. (2004) also discovered that due to a variety of potential ill effects, students from varied demographic backgrounds have varying preferences for synchronous versus asynchronous online courses.

3. Research Methodology

This study uses a questionnaire survey as the primary method of data collection, which is a quantitative research design. The questions on the questionnaire about students' involvement in online

learning were taken from various earlier works, such as Selvanathan et al. (2020) and Lau and Shaikh (2012). The structured questionnaire was divided into two sections: the first section contains the respondents' sociodemographic information, and section two deals with their experiences participating in online learning during the epidemic. This research was conducted at a prestigious private university in Malaysia that is fully owned by a well-known utility firm with connections to the government. About 305 accounting undergraduate students in the first through fourth years of study make up the study's population. This study employs a quantitative research design as the primary data collection is carried out through the questionnaire survey. Concerning the determination of sample size, the estimated sample size of the population is 169 based on reference made to Krejcie and Morgan (1970) and Piaw (2020). Based on the sample size, the 5-likert scale questionnaire has been determined for virtual dissemination to the accounting undergraduates with consideration is given across the range of year of study. Since this study employs the cross-sectional data, the survey has been carried out virtually during the 1st week of May 2021. Only 104 out of 169 respondents agreed to participate in the survey and complete it, making about 61.5% of the total sample. The data's dependability has been tested, and the results of the reliability test show that the data's internal consistency is at an acceptable level.

4. Findings

4.1. Descriptive statistics

Referring to Table 1, the descriptive statistics data revealed that most the respondents were dominated by female accounting students (73.1%), and the majority of them were in their first or second year of study (31.7% to 36.5%). The respondents participated in virtual learning in their respective hometowns as a result of MCO directives, which were implemented as part of the third wave of Covid 19 nationwide beginning in January 2021 and required them to be in their own communities (off-campus). The majority of respondents were from the central region or areas close to the Klang Valley. Hometowns for most of the students were in the cities (72.1%), and they had no problem with the network connectivity (54.8%). Most of the respondents professed that they experienced occasional network glitches during their virtual learning engagement (57%). However, for individuals who reside in rural areas (27.9%) expressed disappointment as they experienced a severe network disruption and mediocre network quality during online learning engagement. Regarding the ownership of the devices used for online learning (i.e. laptop/desktop), majority of the respondents (90.4%) professed that their learning device is regarded as personal belongings and only 9.6% stated that the learning device are borrowed from their own family members, either their parents or siblings. This denotes that most of the students afforded to own their learning device either self-funded or funded by their parents/family members in facilitating them to engage in virtual learning process.

Table 1. Demographic profiles

Characteristics	Categories	Number	Percentage
Gender	Male	28	26.9%
	Female	76	73.1%
Place of online learning	On-Campus	11	9.8%
	Off-Campus	93	91.2%
Year of study	1	33	31.7%
	2	38	36.5%
	3	23	22.1%
	4	10	9.7%
Home location	Central region	48	46.2%
	North region	12	11.5%
	East-coast region	10	9.6%
	South region	33	31.7%
	East Malaysia	1	1.0%
Accessibility area	Urban area	75	72.1%
	Rural area	29	27.9%
Network quality	Poor	7	6.7%
	Fair	30	28.8%
	Good	57	54.8%
	Very Good	10	9.7%
Frequency of network disruption	Very often	10	9.6%
	Often	10	9.6%
	Occasionally	57	54.8%
	Seldom	2	2%
	Rarely	25	24%
Ownership of device (laptop/desktop)	Self	94	90.4%
	Parents	5	4.8%
	Siblings	5	4.8%

Table 2. Descriptive findings for each construct item

Items based on construct	Mean	Standard deviation
Material content & class preparation (MCCP)		
Item 1- shared materials	4.31	.684
Item 2 – print materials	4.23	.839
Item 3 - prepared material notes	4.26	.591
Interactive delivery (ID)		
Item 1 – appropriate platform	4.19	.655
Item 2 – attractive present material notes	4.35	.698
Item 3 – illustrative explanation	4.37	.592
Item 4 – technical explanation	4.46	.556
Instructor-student interaction (I-SI)		
Item 1 – good communication	3.96	.667
Item 2 – post-class tutorials	3.90	.731
Item 3 – lecturer's response to enquiry	4.39	.565
Item 4 - personal message	2.55	1.096

4. Delivery time (DT)

Item 1 – preference real-time online class	3.70	.912
Item 2 – synchronous for calculation subjects	4.24	.583
Item 3 - synchronous for theory subjects	3.57	.815

Table 2 shows the descriptive findings for the items supporting each construct of the study. The learning materials' design and interactive content are related to the learning materials that the lecturer provided with the students prior to the start of online learning. Majority of the respondents concurred with those construct items, showing that their lecturers are working hard to make sure that material contents are distributed not only on a timely basis. (m=4.31) but also that the material contents have an appealing layout and design (m=4.23 and 4.26) to boost student motivation for their virtual learning. In the meantime, the elements supporting the interactive delivery concept are related to the interactive explanation (4.19) and the relevance of such a learning tool to improve student knowledge through online learning is demonstrated by an example of a lecturer utilising the suitable device (4.24) and by using it themselves (m=4.37). Most of the respondents (m=4.46) approved of their lecturer's interactive technical explanation during the online learning session. Given the interaction between the students and lecturers is very limited during the pandemic, most of the students were slightly agreed that they had good communication with their lecturers while they were learning online (m=3.96), and they felt that the lecturer's response to their personal message was crucial to their ability to understand the course material. (m = 4.39). However, they disagreed, though, that they had sent their lecturer a personal note to ask for a better explanation of a certain subject. (m=2.55). The respondents were only marginally in agreement that they preferred synchronous over asynchronous online learning (m=3.70). However, they were largely giving a nod to have synchronous type of virtual learning for calculation subjects (m=4.24) and were slightly agreed to have real time of online learning for theory subjects (3.57).

4.2. Inferential statistics

Table 3. Tests of significant differences between Independent and Dependent variables

Construct of variables	Mean square	F	Sig.
Gender			
MCCP	2.56	.138	.910
D	2.22	.076	.303
I-SI	4.54	1.11	.542
DT	2.56	.697	.700
Network quality			
MCCP	5.56	1.27	.288
D	5.22	1.03	.384
I-SI	6.52	2.90	.039
DT	10.7	6.31	.001
Accessibility area			
MCCP	1.87	.029	.013
D	2.22	.549	.136
I-SI	2.58	.571	.027
DT	2.79	.652	.049

Home location			
MCCP	2.28	.74	.567
D	1.79	.50	.739
I-SI	5.16	1.30	.274
DT	5.15	1.29	.275

Based on Table 3 which pertaining to the T-tests and Anova results above, it revealed that there are not significant differences between each construct of variables and gender, and home location across national regions (measured by Central region, North region, East-coast region, South region and East Malaysia). However, there are considerable variances for a particular item or items of the construct across the accessibility area and network connectivity quality (measured in increasing order of measurement from poor to very good) (measured by urban vs rural area). The degree of network quality, accessibility, instructor-student engagement, and delivery time do vary significantly from one another. This implies that level of network quality and the students' whereabouts may have disparities in their online learning engagement, as they experienced better lecturer-student's interaction and preference towards type of online learning (Bocchi et al., 2004; Conaway et al., 2005; Drago & Peltier, 2004). The results are consistent with earlier research by Adnan and Anwar (2020) and Selvanathan, et al. (2020), which found a substantial relationship between the spatial and personal characteristics and online learning engagement. However, the build of material contents and interactive delivery was unaffected by the amount of network quality and accessibility.

Table 4. Correlation test

	MCCP	ID	I-SI	DT
Year of study	.585 (-.061)	.244 (.130)	.940 (-.008)	.318 (.112)
Place of online learning	.207 (-.141)	.207 (-.141)	.163 (-.156)	.462 (-.082)
Home location	.724 (.040)	.787 (.030)	.356 (-.103)	.431 (.008)
Accessibility area	.117 (.174)	.177 (.151)	.121 (.172)	.251 (.128)
Network quality	.872 (.018)	.243 (.130)	.685 (-.045)	.001 (.369) **
Ownership device	.749 (-.036)	.958 (-.006)	.949 (-.007)	.279 (-.121)

Note: **correlation is significant at 0.01 (2-tailed)

Based on the findings of the correlation test in Table 4, it depicted that none of the students' personal and geographical attributes have effects on the respective construct of online learning engagement's variables, except for the network quality. The network quality is significantly associated with the delivery time construct, in which it denotes that the level of network quality would give an effect to the preference of students in having real-time setting of the online learning engagement and types of subjects (calculations/theory subjects). This might be due to that any disruption of network may impair the motivation of students for having their precarious online learning environment. This is similarly found by Adnan and Anwar (2020) and Bhuasiri et al., (2012) as the network quality plays a significant role in boosting the motivation and enthusiasm of students towards the real-time setting of the virtual learning process.

5. Conclusion and Way Forward

In response to the government's restrictions restricting travel, Malaysia's higher education institutions have made significant steps to guarantee that their students continue to learn even while they are suffering from the contagious sickness. The absence of a real learning environment would affect how engaged students were with online learning because they would encounter difficulties that felt unfamiliar to them throughout the virtual learning sessions. The findings of the study revealed that majority of the respondents were agreed with the academic facilitation efforts made by their lecturers to ensure the continuous learning session and motivate self-learning among the students.

The wave of the pandemic is not perceived as the major hindrance of the pursuant of education learning process as long as the university takes effective actions to address the appropriate learning platform for the students. However, given their diverse geographic and personal characteristics, students may suffer a variety of difficulties when learning online, particularly with regard to interactions between lecturers and students and preferred modes of online learning. There are differences between these two factors depending on the accessibility and network quality of the area, however there were no differences based on the respondents' gender or home location characteristics. Nonetheless, gender and home location attributes failed to have significant differences in material contents and interactive delivery constructs of variables. Pertaining to the relationship between the students personal and geographical characteristics, all the variables failed to have significant association towards the online learning engagement, except for the network quality which contribute to the impact of the online learning engagement in the form of delivery time. In other words, the network's quality is a key aspect in ensuring that connections between students and instructors during this remote sort of learning during the epidemic are successful.

Since this study only focuses on gathering opinions about online learning among accounting undergraduates from the prestigious GLU in Malaysia, this limitation might be improved by future studies that include more accounting undergraduates from other universities, including public and private universities that offer an accounting programme, so that their participation in online learning experiences can be more broadly generalised by the larger sample of respondents.

Acknowledgments

References

Adnan, M., & Anwar, K. (2020). Online learning amid the COVID-19 pandemic: Students perspectives. *Journal of Pedagogical Sociology and Psychology, 1*(2), 45-51. https://doi.org/10.33902/jpsp.2020261309

Agarwal, S., & Kaushik, J. S. (2020). Student's Perception of Online Learning during COVID Pandemic. *The Indian Journal of Pediatrician, 87*, 554. https://doi.org/10.1007/s12098-020-03327-7

Alamri, A., & Tyler-Wood, T. (2017). Factors Affecting Learners with Disabilities-Instructor Interaction in Online Learning. *Journal of Special Education Technology, 32*(2), 59-69. https://doi.org/10.1177/0162643416681497

Alqurashi, E. (2019). Predicting student satisfaction and perceived learning within online learning environments. *Distance Education, 40*(1), 133-148. https://doi.org/10.1080/01587919.2018.1553562

Azhari, F. A., & Ming, L. C. (2015). Review of e-learning Practice at the Tertiary Education level in Malaysia. *Indian Journal of Pharmaceutical Education and Research, 49*(4), 248-257. https://doi.org/10.5530/ijper.49.4.2

Azizan, F. Z. (2010). Blended learning in higher education institutions in Malaysia. In *Proceedings of regional conference on knowledge integration in ICT* (Vol. 10, pp. 454-466).

Baber, H. (2019). E-SERVQUAL and Its Impact on the Performance of Islamic Banks in Malaysia from the Customer's Perspective. *The Journal of Asian Finance, Economics and Business, 6*(1), 169-175. https://doi.org/10.13106/jafeb.2019.vol6.no1.169

Bhuasiri, W., Xaymoungkhoun, O., Zo, H., Rho, J. J., & Ciganek, A. P. (2012). Critical success factors for e-learning in developing countries: A comparative analysis between ICT experts and faculty. *Computers & Education, 58*(2), 843-855. https://doi.org/10.1016/j.compedu.2011.10.010

Bocchi, J., Eastman, J. K., & Swift, C. O. (2004). Retaining the Online Learner: Profile of Students in an Online MBA Program and Implications for Teaching Them. *Journal of Education for Business, 79*(4), 245-253. https://doi.org/10.3200/joeb.79.4.245-253

Conaway, R. N., Easton, S. S., & Schmidt, W. V. (2005). Strategies for Enhancing Student Interaction and Immediacy in Online Courses. *Business Communication Quarterly, 68*(1), 23-35. https://doi.org/10.1177/1080569904273300

Drago, W., & Peltier, J. (2004). The effects of class size on effectiveness of online courses. *Management Research News, 27*(10), 27-41. https://doi.org/10.1108/01409170410784310

Inoue, Y. (2007). Online Education for Lifelong Learning: A Silent Revolution. *Online Education for Lifelong Learning*, 1-27. https://doi.org/10.4018/978-1-59904-319-7.ch001

Kanuka, H., & Jugdev, K. (2006). Distance education MBA students: an investigation into the use of an orientation course to address academic and social integration issues. Open Learning: *The Journal of Open, Distance and e-Learning, 21*(2), 153-166. https://doi.org/10.1080/02680510600715578

Krejcie, R. V., & Morgan, D. W. (1970). Determining Sample Size for Research Activities. *Educational and Psychological Measurement, 30*(3), 607-610. https://doi.org/10.1177/001316447003000308

Ku, H.-Y., Tseng, H. W., & Akarasriworn, C. (2013). Collaboration factors, teamwork satisfaction, and student attitudes toward online collaborative learning. *Computers in Human Behavior, 29*(3), 922-929. https://doi.org/10.1016/j.chb.2012.12.019

Lau, C. Y., & Shaikh, J. M. (2012). The impacts of personal qualities on online learning readiness at Curtin Sarawak Malaysia (CSM). *Educational Research and Reviews, 7*(20), 430. https://doi.org/10.5897/ERR09.229

Peltier, J. W., Schibrowsky, J. A., & Drago, W. (2007). The Interdependence of the Factors Influencing the Perceived Quality of the Online Learning Experience: A Causal Model. *Journal of Marketing Education, 29*(2), 140-153. https://doi.org/10.1177/0273475307302016

Piaw, Y. C. (2020). *Mastering Research Methods* (3rd ed.). McGrawHill.

Selvanathan, M., Hussin, N. A. M., & Azazi, N. A. N. (2020). Students learning experiences during COVID-19: Work from home period in Malaysian Higher Learning Institutions. *Teaching Public Administration*, 014473942097790. https://doi.org/10.1177/0144739420977900

Smart, K. L., & Cappel, J. J. (2006). Students' perceptions of online learning: A comparative study. *Journal of Information Technology Education*, 5(1), 201-219. https://doi.org/10.28945/243

Song, L., Singleton, E. S., Hill, J. R., & Koh, M. H. (2004). Improving online learning: Student perceptions of useful and challenging characteristics. *The Internet and Higher Education, 7*(1), 59-70. https://doi.org/10.1016/j.iheduc.2003.11.003