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Learning Satisfaction towards Online Distance Learning (ODL) among Physical and Health Education Students during COVID-19 Pandemic

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Abstract

The implications of online learning versus face-to-face learning have been discussed for several years in higher education. Hence, this study's objective was to assess the learning satisfaction towards Online Distance Learning (ODL) and its relationship with ODL readiness in the context of Physical Education setting. This quantitative research adopted an online survey method that measure the ODL readiness and learning satisfaction among 172 Physical and Health Education students who are practicing ODL due to Corona Virus Disease (COVID-19) pandemic. The results indicate that ODL readiness is more likely to affect the learning satisfaction among students while having ODL session and it led to low satisfaction level in learning. The results of learning satisfaction level showed a small effect in accordance to gender; male students are anticipated to have slightly higher than female students due to dissimilarity of skill possessed. On this basis, it is recommended the ODL readiness among students should be considered when performing ODL classes in order to achieve high learning satisfaction towards ODL.

Keywords: Learning Satisfation, Online Distance Learning (ODL), Learning Readiness, Physical Education Students, COVID-19

Introduction

Coronavirus (COVID-19) has shown a significant impact on students, educators and educational organisations around the globe including the higher education organizations had to close down their campuses so that students could abide to social distances during the pandemic (Chu & Li, 2022; Almanthari et al., 2020). With lots of transformations and considerations taken, educational institutions worldwide have agreed to use the available technological tools to create online learning settings for students in all fields of study (Fauzi, 2022; Kaur, 2020; Vela, 2018).

Rapid advancement in technology now allows students to learn entirely online while socialising with peers, attending lectures and engaging in subject-specific discussions. Through Online Distance Learning (ODL), students can obtain learning materials related to new subjects that they can explore theresources such as class lectures outside the school

environment where they have face-to-face lessons. The students then focus on the adaptation of new learning content through approaches such as cooperative learning in classes, blended learning, project-based and group discussions and videos (Smith, 2015).

In 2015, higher education institution of United States has recorded 29.7% enrolment in online class which is more than six million students in at least one course taken. The admission of online classes increases while the enrolment rate of physical campus courses decreases (Allen & Seaman, 2017). Online courses enable students to explore new ways of planning, arranging, engaging and completing requirements that allow students to achieve higher levels of independence and self-management. Indirectly, ODL provides online access to learning contents and materials and also as initiative to engage in learning regardless of distance, cost, time and any other challenges.

Accordingly, before institutions decide to use online platform to teach in this COVID-19 period, they should very well assess several arising issues. One example is the satisfaction level of the student while having online learning. Student satisfaction is at the core of every instructional process. Student satisfaction is the perception that the content of information and knowledge, or the technology itself, satisfies the needs of students. However, Bao (2020); Filius et al (2019) argue that it takes substantial preparation and expenditure from all sectors to go completely online. While the institution has a comprehensive online platform where teachers can record and provide lectures for students to access from their homes, it will still less likely bear an expected result if the students fail to acquire these materials due to constrains for technological access such as a laptop / tablet or a good phone (Filius et.al., 2019). Additionally, weak motivation has also been described as a crucial cause in leading to the low participation in online learning (Hartnett et al., 2011).

Thus, if the university did not previously train students and teachers in a virtual learning training, and does not have enough tools, including on-campus and in-home recording platforms, to allow the teacher to document and present their work in a way that students can access, then the online plan ends here (Yang & Li, 2018). Nevertheless, some people also view online learning as advantageous, convenient and making life easier as they do not need to go outside of the house and that it can be accessed easily online. Having said that, does it really equate to students' satisfaction with learning through online platforms at home?

Harsasi and Sutawijaya (2018), as well as Rahman et al (2018) noted that it is crucial to evaluate the level of the students' satisfaction and to examine the variables that may affect students' satisfaction in online learning setting. Students are supposed to exhibit equal inspiration and satisfaction with the online learning and face-to-face class to ensure efficiency of the ODL. Otherwise, it may reduce the effectiveness of ODL. However, to obtain the expected efficiency and satisfaction from the active learning experiences through ODL, prior readiness of the students is essential in ensuring the effectiveness of online learning (Hao, 2016).

Apart from that, online learning readiness is also one of the challenges faced by students and educators when they wish to resort to ODL for academic activities (Tarus et al., 2015). There are some factors linked to ODL readiness which are physical readiness (technology and internet skills and experiences), technical readiness (technology and internet access), mental readiness (motivation and time management) and social interaction (interaction with teacher

and classmates and communication competency) which all these challenges were concluded from previous research.

Research Objectives

This study focused its objectives on learning satisfaction towards Online Distance Learning (ODL) among Physical and Health Education student during COVID-19 pandemic. The specific objectives of this study are

1. To determine the level of learning satisfaction towards Online Distance Learning (ODL) among Physical and Health Education students.
2. To measure the mean differences of learning satisfaction towards Online Distance Learning (ODL) between male and female students.
3. To examine the relationship between learning satisfaction and Online Distance Learning (ODL) readiness among Physical and Health Education students.

Literature Review

Satisfaction has been described as a perception that a product or service function, or a product or service itself, offers a satisfying degree of consumer-related fulfilment. Harvey et al (2017) has demonstrated that student satisfaction in online learning is a reflection of student performance and pleasant experience. The researcher showed that service interactions had an impact on user expectations of consistency and satisfaction, and in the light of this technology, university administrators need to be mindful that these practises or procedures must be efficiently controlled to achieve student satisfaction.

There is a paradigm change between face-to- face classrooms and online classes. It states that in the face-to-face classroom, the faculty member is responsible for the course pace and the materials covered. The faculty agrees on the content of the course, how to convey the course, and what kind of learning types to use. In the case of online learning classes, the success of ODL falls on students. The students who understand the paradigm change and are able to take responsibility for it support online education rather than face-to-face classroom instruction will improve the satisfaction of students towards ODL.

Gender is an important element that must be considered when talking about the adoption of technology. Learning strategies differ from one gender to another. According to Lee and Hung (2015), male learners appear to be individual or dynamic learners, while female learners tend to be group learners while they research by networking. While dealing with gender differences in eLearning, people typically believe that men are more likely to use computers to learn about them than women. Usually, men show higher computing ability than women. ELearning assessment and satisfaction of male students is higher than female students according to (Lu and Chiou, 2010). It was found that male students have a better perception than female students in eLearning.

However, empirical findings show that gender does not affect eLearning satisfaction or behaviours, or that it does not influence eLearning outcomes 2010. There was no substantial difference between gender and satisfaction. Lee and Hung (2015), stated that distribution process, content, framework, and interaction have a substantial effect on eLearning satisfaction but gender influences only on the interaction aspect as both male and female learn differently. There were no major variations in gender.

Topal (2016) stated that the assessment of the level of readiness of learners who do not have familiarity with this form of learning applies to both the learner and the course plan of the teacher. In order to perform e-courses without any complication, it is important to determine the impact on the student's level of readiness. ODL readiness means the readiness of a student to face the new norm in education setting these days in terms of physical, technical, mental and social interaction readiness. For the sake of ODL to be implemented successfully and efficiently, the willingness and readiness of a student to undergoing the ODL session as they prepared for face-to-face class is essential. Hence, the satisfaction level of a student could be measure as long as the students take part in the ODL. The Student Online Learning Readiness (SOLR) Model is refer as basis for designing the research framework. It is derived from Tinto (1975) and modified by Yu and Richardson (2015) as shown in Figure 1 below.

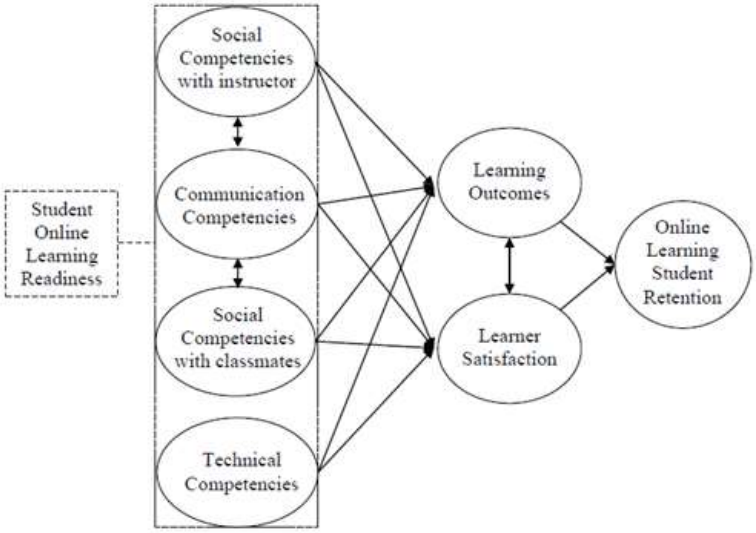

Figure 1. Students Online Learning Readiness (SOLR) Model

The SOLR model is made up of four elements considered essential to determine student readiness for online learning such as social competencies with instructors, communication competencies, social competencies with classmates and technical competencies. In previous study by Yu and Richardson (2015), the positive ties of each factor to student satisfaction in an online learning setting were verified by the researcher.

In online learning, relationships between student-student and instructor were more frequently explored than student-content contact (Kuo et al., 2014). Online learning with high social interaction levels between students and instructor have been suggested to offer greater motivation, better learning and satisfaction for students (Croxton, 2014). While, interactions between students minimised the possible risks of bad result in their classes (Parahoo et al., 2016).

Adapting technology in online learning allows students to engage and acquire their online learning experience with high satisfaction and enjoyment (Chaiprasurt & Esichaikul, 2013). The use of technologies will help foster actual experiences in a way that is adaptable to both the synchronous and asynchronous existence of online classes and faculty workloads (Yu & Richardson, use Student Online Learning Readiness (SOLR) as the instrument in their research

which is intended to help grasp the online learning ability of students by evaluating three competences: psychological, connectivity and technological.

The ODL readiness is considered to be one of the variables influencing student satisfaction in the ODL process. The successful completion of the online criteria of the course, which is considered to be the first phase of ODL courses, is one of vital importance in ensuring student satisfaction in ODL (Gencer, 2015).

Chronologically, Shraim and Khlaif (Shraim & Khlaif, 2010) defined four dimensions of e-readiness in their research, such as accessibility, individual capability, motivation, and barriers. Yurdugül and Sarikaya (Yurdugul & Sarikaya, 2013) clarified the five facets of online learning, namely; self-directed learning, learning inspiration, computer self-efficacy, student awareness and self-efficacy in online interaction. Then, e-readiness reported by Ilgaz and Gulbahar (2015), consider access to technology, technological skills, inspiration, online audio-video, and interaction as factors. Factors linked to eLearning readiness evolve and it includes learning management and self-directed learning, self-efficacy of technology, self-efficacy of communication (Hao, 2016) and motivation (Demir, 2015). Recently in a study by Martin, Stamper & Flowers (2020), online learning readiness is divided into three main aspects: student interests, student skills and trust in using communication through computer and student's self-management.

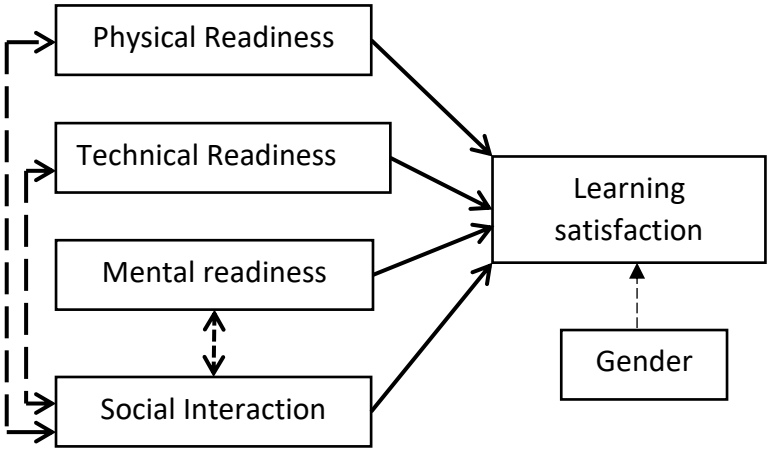

Figure 2. Conceptual framework of Online Distance Learning (ODL) readiness and student's learning satisfaction

Based on the evolution of definition about students' readiness in online learning, four common elements of online learning readiness emerged as shown in Figure 2 which are physical readiness (technology and internet skills and experiences), technical readiness (technology and internet access), mental readiness (motivation and time management) and social interaction (interaction with teacher and classmates and communication competency). All four elements that have been identified can influence student's satisfaction in ODL.

Methodology

This research used simple random sampling, consisting of 172 Bachelor of Physical and Health Education students. In parallel with this statement, a sample size determination table,

propagated by (Krejcie & Morgan, 1970). Still and all, based on mortality factor, the accurate sample size is 172 students, specifically. The rationale of the choice of such sample was due to availability and accessibility for both the researcher and the target group.

An online survey questionnaire was used to gather data about the learning satisfaction towards ODL. Student Readiness for Online Learning (SROL) instrument by Martin et al (2020) and Student Satisfaction instrument by Harsasi and Sutawijaya (2018) were referenced during the development of this research instrument. 33-item questionnaire was modified and used to assess the effectiveness of online learning. A pilot test of the survey was administered involving 30 participants who share the identical characteristic as the sample of the research. Necessary modifications were made based on their ideas and feedback. The overall internal consistency value or Cronbach`s Alpha is 0.881. This can prove that the overall items of the questionnaire were reliable to be used.

Results

The level of learning satisfaction towards Online Distance Learning (ODL) among students

The mean score of student's satisfaction of 172 students of Physical and Health Education towards ODL is 1.970 (SD= 0.720). Based on the Nunnally & Bernstein (1994) mean score interpretation table, the mean score of student's satisfaction towards ODL was spotted to be at low level.

Learning satisfaction towards Online Distance Learning (ODL) between male and female students

To determine the differences of Student's Satisfaction towards ODL between boys and girls, the t-test for Equality of Means column and Equal Variances not Assumed row in Table 2 was referred. The greatest interests here are the t-value and Sig. (2-tailed) value which are t-value = 2.428 and ρ-value = 0.016. The level of significance is α = 0.05 based on the 95% of Confidence Interval of the Differences.

Table 2
Independent Sample T-test

		Levene's Test for Equality of Variances		**t-test for Equality of Means**	
		F	Sig.	t	Sig. (2-tailed)
Student Satisfaction	Equal variances assumed	6.416	.012	2.465	.015
	Equal variances not assumed			2.428	.016

The two hypotheses were created. The H^0 presents that there is no significant differences of student's satisfaction between boys and girls. Meanwhile, H^1 states that there is a significant difference of student's satisfaction between boys and girls. Since the ρ-value (0.016) of t-test is smaller than 0.05, the null hypothesis was rejected. This independent T-Test revealed a significant difference in the student's satisfaction towards ODL. It indicates that the average score of male student's satisfaction towards ODL (M = 2.111, SD = 0.8025) was significantly

higher than the average score of female student's satisfaction towards ODL (M = 1.8440, SD = 0.6152).

The relationship between learning satisfaction and Online Distance Learning (ODL) readiness among students

Based on the Table 3 below, the correlation (r) value between ODL readiness and student's satisfaction towards ODL is 0.711. The data shows that there is a moderate positive correlation between ODL readiness and student's satisfaction towards ODL. Coefficient of determination (r2) indicates the proportion of variance held in common by the two variables which valued 0.505. Hence, 51% of Student's Satisfaction is explained by ODL Readiness.

Table 3

The correlation between ODL Readiness and Student's Satisfaction

		ODL Readiness	**Student Satisfaction**
ODL Readiness	Pearson Correlation	1	.711**
	Sig. (2-tailed)		.000
	N	172	172
Student Satisfaction	Pearson Correlation	.711**	1
	Sig. (2-tailed)	.000	
	N	172	172

The test of significant for correlation was run. The two hypotheses were created which are null hypotheses (H^0) and alternative hypotheses (H^1). The H^0 presents that there is no significant relationship between ODL readiness and student's satisfaction towards ODL. Meanwhile, H^1 states that there is a significant relationship between ODL readiness and student's satisfaction towards ODL.

All correlation coefficients are significant at $\alpha = 0.05$. Hence, it shows that the significant 2-tailed (ρ-value =0.000) was smaller than α and the H^0 was rejected. It could be conclude that there is a moderate positive and significant relationship between ODL readiness and student's satisfaction towards ODL ($r = 0.711$, ρ-value = 0.000). If the ODL readiness increases, the student's satisfaction towards ODL increases.

Discussion

This study found that ODL generated a low level of satisfaction among Physical and Health students. In relation to demographic factors, students may face difficulties in ODL setting due to their location and whereabouts, type of gadget used and the total of subject enrolled in that particular semester. All of the factors aforementioned may subsequently lead to a low learning satisfaction level among the students. A majority of the respondents reside in rural areas, hence explains their inability in securing a stable internet connection for a smooth ODL session. As contended by Pruet et al (2015), a reliable and efficient internet access, more often than not, is usually found to be inadequate in remote areas and unexplored regions.

In term of the type of gadget used, the researcher determined that almost all of the respondents possess technological access such as a laptop and a smartphone. Such devices are sufficient enough for them to be able to participate in online classes, engage in virtual

discussions and do the assignments without much of a problem. Last but not least, the total subjects enrolled for the semester also explained the students' dissatisfaction toward ODL. Most students generally enrol in a total of seven to eight subjects for a semester. This overwhelmed them with an abundance of tasks and assessments that need to be completed in limited time. All in all, the factors presented and discussed above primarily sum up the rationale of why Physical and Health Education students exhibit a low satisfaction level toward ODL.

Gender differences play a part in the learning process. Previous researches confirm that differences in students' abilities are gender-dependent. The cause of these behavioural and information processing variations is explained by biological and social influences (Richard, et. al., 2015). In this study, the satisfaction level among students does differ on the basis of gender. Based on the results, male students show higher satisfaction level towards ODL as compared to female students.
The reason must be due to the gender gaps in technological abilities and willingness to utilise multiple interactive platforms in online learning. Male students tend to operate the technology better than female students because the former have high Information and Communication Technology (ICT) skills while latter are typically inclined to use the technology without willingly increasing their technical skills. As Harvey et al (2017) stated, men are more likely to use computers and digital media whereas women prefer to perceive computers as social media only.

The other reason is based on the researcher's judgement where a majority of the respondents in this study are female students and some of them are married. The researcher assumed that the married female respondents are confined to and occupied with household duties while at the same time having to commit to online learning sessions. For such reason, there should be a dire need for them to be able to manage their time accordingly, so they can attend to both their household and learning commitments. Male students, on the other hand, tend to have more time to rest and explore more things related to technology.
Last but not least, the reason of female students shows lower satisfaction level compared to male students is because of confidence level of women in operating the technology. This is supported by Liberatore and Wagner (2021) women are almost as capable as men in terms of technological performance, but gender differences exist in terms of confidence. Women similarly have access to the technology nevertheless, men are regular in using the technology intensely compared to women and experience is the best teacher.

Learning is encouraged if the student has adequate technical skills, ability to self-learn and interact, motivation, and a high level of readiness (Topal, 2016). Firstly, the researcher indicated two components that can be counted as physical readiness during ODL, which are technology and internet skills and experiences. The researcher found that most of the respondents in this study seem to have sufficient skills and prior experience in using the technology and internet. This is maybe due to the learners today being considered as digital natives and capable to use the technologies well.

Technology and internet access is considered as technical readiness and has a significant relationship related to students' satisfaction. The results indicate that almost of the respondents possess at least one technological device such as a smartphone or a laptop. The

third factor is mental readiness which consists of motivation and time management. ODL session is usually conducted at the comfort of one's home. Having said that, there are still existing distractions such as media entertainment from the television, and other external noise and disruption. In addition, online distraction is also bound to occur where students may find themselves being too caught up in social media, online games and other online entertainments. This matter is hence related to the time management of an online learner.

Lastly, interaction with teacher and classmates and communication competency are illustrated as social interaction factors. Interaction during ODL and conventional class is contradictory. During face-to-face learning, students are able to directly ask the instructor for clarification and guidance. They could also communicate limitlessly with classmates, but through ODL, there is a high possibility for misunderstanding and miscommunication to occur because everyone has invisible barriers in communicating through electronic devices. Poor social interaction may lead to difficulties in completing the task given by the instructor especially for group task and therefore, students' satisfaction is likely to decrease.

Overall, for ODL readiness, a moderate positive correlation is found to be related to students' satisfaction toward ODL. Due to many factors such as the lack of technological skills, lack of accessibility to technology devices or internet access, low motivation and poor time management skills can definitely affect students' satisfaction

Conclusion

In teaching and learning, student's satisfaction is a crucial element to measure the effectiveness of the learning especially learning through ODL. Through the engagement and participation of the students in learning, feedback regarding the ODL itself can be acquired and can be counted as satisfaction of the students. Thus, for the students to be engaged in the ODL session, the readiness of ODL should be emphasis in order to produce high positive satisfaction of the students towards ODL.

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