Exploring Online Environment: The Case for Social Cognitive Theory

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Abstract
Online learning is now at the forefront of the educational landscape because of the recent COVID-19 pandemic, which calls for the quick adoption and integration of innovative technology-learning strategies that promote continuous learning. Hence, this quantitative study sought to increase student engagement in an online learning environment by examining how the environment, behavior, and cognition affect how well students perceive their learning experiences. A total of 255 respondents from public universities in Malaysia were gathered using a questionnaire that was adapted from a previous study by Martin & Bolliger (2018). There are four sections with related questions to measure the three types of interaction in online learning. In general, the results revealed that the learner-to-instructor and the learner-to-content interaction are considered significant elements that may make or break the online learning environment. The study's results may be used as a guide for educators and learners to enhance the present and future performance in the online learning environment.
Keywords: Online Learning Environment, Social Cognitive Theory, Learner-To-Learner Interaction, Learner-To-Instructor Interaction, Learner-To-Content Interaction, Student Engagement, Learning Engagement, Open and Distance Learning

Introduction
Background of Study
Online learning is defined as an environment for open and distributed learning that makes use of pedagogical tools made available by the Internet and web-based technology to improve

learning and knowledge building through meaningful action and interaction (Colorado and Eberle, 2010, as cited in Dabbagh and Bannan-Ritland, 2005).

Distance learning, often known as distance education or e-learning, is a type of online learning in which the physical separation of instructors and students during teaching and learning and the use of various technologies to support student-teacher and student-student interaction are indeed the significant components. Open and distance learning (ODL) is a method of studying remotely without frequently having face-to-face interactions with the instructor in the classroom (Universiti Teknologi Malaysia[UTM], 2021).

According to Lim (2004), Internet technologies enable students to access current knowledge anytime and from any location. Additionally, they encourage independent, reflective, and active learning as well as interaction between experts and beginners. The use of internet technology does not guarantee that students will engage in their learning context or that they will know how to do so.

Student engagement can be defined as the effort and commitment that students put into their learning (Krause & Coates, 2008). Engagement is influenced by various factors, including active and collaborative learning, the level of academic challenge, the interaction between students and instructors, and a supportive campus environment. Abdallah Moubayed et al (2020) define student engagement as the level of interest demonstrated in a topic or subject, which can be characterized by the amount of interaction the student has with the content and the effort made to complete associated activities. According to Kuh (2009), engagement is the amount of time and effort students commit to activities that are empirically connected to desired outcomes.

In today's educational environment, especially during the COVID-19 pandemic, online learning is crucial. There are many pedagogical advantages to online learning for organizations and educational institutions. Due to a lack of preparation for online learning, both instructors and students had difficulties as a result of this unexpected change. However, it can be harder to engage students in an online learning environment than in a traditional one (Gillett-Swan, 2017). Many educators believe student engagement is crucial to the teaching and learning process because it affects students' accomplishments, learning, and retention. Guo et al (2014) concurred that in online learning, as well as other types of learning, student engagement is seen as a vital prerequisite for learning to be achieved successfully.

Another recent study found that students struggle to stay engaged in online classes even more than they were in face-to-face lectures before the pandemic (Hollister et al., 2022). Moreover, based on the research done by Abdallah Moubayed et al (2020), there are two major issues that online learning must address: (1) personalizing the online learning experience and (2) keeping students engaged and motivated. According to a study by Perets et al (2020), which looked into how instructors and students experienced teaching and learning during the COVID-19 pandemic, it was also discovered that when traditional or face-to-face learning was transformed into virtual or online learning platforms, students' main problem was engagement, whereas before the pandemic, the problem for students was content. Therefore, studies on the topic of engagement in online learning should be conducted to provide students with a better online learning environment and to increase student retention in online learning based on three types of interactions, which are learner-

to-learner interaction; learner-to-instructor interaction; and learner-to-content interaction (Moore, 1989).

Statement of Problem

The effect of the global pandemic has tremendously turned 360 degrees on the learning environment in Malaysia as it is deliberately enforced overnight by Higher Education Institution (HEI) to displace teaching and learning activities from face-to-face to online learning mode. On the bright side, this transition encourages all educational institutions to incorporate technology into the learning process (Siron et al., 2020). Additionally, online learning associates learners (distant) with digital media and communication as it encourages students to become self-directed learners with flexibility, accessibility, and easy administration (Mukhtar et al., 2020).

Even though online learning existed before the pandemic, students and lecturers struggled as it occurs during unexpected periods and in order to carry it out, issues such as pedagogy, online communication synchronization, online assessment role, and feedback must be considered (Arifiati et al., 2020). Therefore, the lecturer has faced unexpected challenges such as inadequate online teaching experience, lack of online content preparation, and at the same time students need to stay connected with the lecturer (Bao, 2020; Cohen, 2020; Zizka & Probst, 2022).

On the student's side, Ghazali et al (2021) revealed students might feel isolated as they need to do an entire learning activity independently, and maintaining connection was also challenging. Thus, Chauhan et al (2022) expressed concern about the inability to maintain engagement at the same level as face-to-face despite technology tools assisting them. Siron et al (2020) mentioned that online learning exposes students to technological anxiety, specifically computer anxiety. Furthermore, online learning requires self-efficacy to lead to greater satisfaction (Abbas, 2016; Alzahrani & Seth, 2021; Lim et al., 2021), and positive learners will perceive a better online learning environment as well (Wei & Chou, 2020). Anas Pratama and Arief (2019) stated that students' motivation is closely related to willingness to be responsible for self-study. Nassr et al (2020) revealed students had challenges due to improper environment (home), meeting with peers, and disruption of live stream with lecturers burdened them as this situation affected their academic performance. Undeniably, Dewantoro and Rachmawati (2020) mentioned that due to unpreparedness, students must endure their stress and feel dissatisfaction with the quantity of assessment/workload.

Although many past studies on online learning had been carried out, studies on implementing online learning environments focusing on the differences between education and gender levels during the pandemic were less discussed (Tang et al., 2021). Hence, this study investigates learners' perceived learning in an online environment. Specifically, this study was done to answer how social cognitive theory is portrayed in students' online learning by the following research questions:

- RQ1: How does the environment influence students' online learning?
- RQ2: How does behavior influence students' online learning?
- RQ3: How does cognition influence students' online learning?

Literature Review

Characteristics/Advantages of Online Learning

According to Moore's (1993) research, effective online learning requires three different types of interaction: learner-to-learner, learner-to-instructor, and learner-to-content. This served as the study's conceptual framework (see Figure 1). In addition, a study by Lear et al (2010) discovered that online learners could become active and more involved in their courses through interactions with peers, instructors, and course material (content).

Student engagement is boosted via learner-to-learner interaction, which benefits online learning. Building activities that increase engagement is crucial to avoiding potential boredom and isolation among online students in the learning environment. With the help of these activities, students can develop a strong sense of community and connection. Revere et al (2011); Banna et al (2015) found that traditional engaged learning technologies, such as discussion boards, chat rooms, blogs, wikis, group projects, or peer evaluation, have been effective in fostering learner-to-learner engagement in online courses. The authors strongly recommend utilizing web-based tools like Twitter feeds, Google applications, or audio and video technologies like Wimba Collaboration Suite to increase student engagement in online classes. Additionally, Banna et al (2015) recommed using discussion boards for asynchronous activities and videoconferencing for synchronous activities to improve student-to-student engagement.

Dixson (2010); Gayton & McEwen (2007) revealed that student engagement in online learning increases when there is learner-to-instructor interaction. Students' involvement may be closely tied to the utilization of different channels for communication between instructors and learners. It is encouraged that online instructors pay close attention to learner-instructor interactions because they may have an impact on learning outcomes. In addition, the authors also found that rapport and cooperation between students and instructors are crucial for student engagement, which leads to academic achievement. In order for online learning to be successful, students must have the chance to interact with instructors and other students about what makes their learning experience effective.

In order to actively engage students in their courses, Gayton and McEwen (2007) emphasize that instructors must be present in online courses. However, when online courses are intentionally created so that the more the students engage and the more meaningful learning results would be, instructors should be minimally involved in discussions. Additionally, a study by Dixson (2010); King (2014) found that cooperation and collaboration between students and instructors are necessary for online courses to have better levels of student engagement.

Learner-to-content interaction is another aspect of engagement that is crucial to students' success in online learning (Vrasidas, 2000). According to Moore (1993), the process of engaging intellectually with the material can change a learner's understanding and perspective in ways that can help with successful learning outcomes and learning completion. Additionally, learner-to-content interaction is essential because it shows students are interested in the contents and activities that are prepared (Tuovinen, 2000).

Challenges of Learning Online
Despite the advantages of online learning, there are many challenges that students and instructors may face while participating in online learning. Firstly, time management. According to HSA Wahid at el (2020), time management is quite challenging to keep learner-to-content interaction engaged. The study found that learner self-organization was crucial and a major factor in time management. This finding is in line with that of Agustina et al (2020), who stated that students experienced confusion in learning as they often forgot their online class schedules and the deadlines for their assignments. The majority of the students also mentioned that they had problems with time management for their independent studies. In addition, with the lack of skills for independent study, they experienced confusion in learning.

Secondly, online learning is difficult for students as lecturers' instructions are unclear (Tareen & Haand, 2020). Miscommunication between lecturers and students in an online learning environment can affect the quality of the work done by the students. When it is online learning, it is difficult for lecturers and students to communicate with each other, so this leads to poor quality teaching and learning. The results also show that participants agree that conducting online learning is challenging because students frequently choose not to engage in the learning process and because the online instructional environment is insufficient to maintain learners' interest or encourage their intrinsic motivation. As some students are easily distracted by other things while learning, not all students will engage actively in online learning such as being apathetic, chatting with friends, not being excited, not focusing or even sleeping during learning activities.

Lastly, the fact that students struggle with technological literacy and competency is yet another challenge with online learning (Barrot et al., 2021). The findings indicate that the two factors that were most impacted by COVID-19 on students' online learning experiences were the quality of teaching and learning and the mental health of the students. The risks posed by COVID-19 are only one factor contributing to students' anxiety; other factors include social and physical limitations, lack of familiarity with new learning environments, technical difficulties, and worries about financial resources. This result is consistent with Simamora's (2020) study, which revealed that some students reported that online lectures made them anxious and made it difficult for them to concentrate on their studies. This is a result of the evolving face-to-face instruction and learning processes, which are now shifting to online lecture format.

Past Studies
Past Studies of Difficulties in Learning Online
Education conventionally has been managed via physical interactions between teachers and students in classrooms. It varies to all education levels, including higher and lower-level education. Due to the Covid-19 pandemic outbreak in late 2019, we can see that the education landscape is changed. This trouble has affected approximately 1.6 billion students in more than 200 countries. The virus is spreading mainly among people who are in close contact with each other, for example, at a conversational distance. The virus can spread from an infected person's mouth or nose in small liquid particles when they cough, sneeze, speak,

sing or even breathe. To overcome the constraint of physical interactions and at the same time to endure the education process, online teaching methods are applied across the world. There are a few difficulties appointed across the majority of the research done regarding online learning implementation across the year, and one of the issues is the IT Infrastructure challenges. According to Abdulmajeed et al (2020), IT infrastructure factors include challenges to the accessibility, affordability, quality, and nature of IT devices and services, which also cover the communication infrastructure, government policies, and internet coverage. On behalf of the students and teachers, they need to invest in the equipment and devices for the online class. In contrast, the government needs to ensure the communication infrastructure and internet coverage are in good condition. Not all countries have good internet coverage. In the study by Abdulmajeed et al (2020), which involved 200 respondents, only (89%) of the Nigerian university's students can access internet service, often in the form of 3G or 4G. The internet coverage is also not always excellent; only 23.3% of respondents reported having a superior internet service. Not only in African countries, but this issue is also common in most developing countries. We, as South East Asians, also face a similar problem here. From another perspective, Dizon et al (2021), despite having a proper device like a laptop or tablet for online learning, which is the most common problem encountered during online classes, other related issues are Internet connectivity issues, slow internet connection, no signal, or intermittent connection are drawbacks that occurred during the teaching process. Of 548 respondents, 375 have a slow internet issue, 59 have an internet signal problem, and 58 have intermittent internet connectivity. This issue is also raised in the study by Rahma et al (2020) covering Indonesian elementary school activity session during the pandemic.

Another challenge of online learning is the readiness and preparation of both parties, the teacher and the student. According to Andoh (2012), experience in technology is another essential factor contributing to how well teachers can apply technology in their teaching and learning process. The teachers' better skills will determine whether they would use technology in their teaching and how much technology they will incorporate. To ensure the teacher is ready, all material must be well prepared either by the teacher or institutional. Training provided by the institutional and Ministry of Education also is crucial to help the teacher's preparation. To deliver the learning process successfully, all parties must play their role, which includes the parent. Rahma et al (2020) stated that parents must also monitor and assist the child, especially on the devices and infrastructure technical part. A child's education is not only the responsibility of teachers and schools. The parent also must involve and assist the child under their care.

Past Studies of Advantages of Learning Online
Despite the challenge of online learning, there are also advantages that we can get from it. First, it provides learners with flexibility and ubiquity to learn anytime and anywhere via the Internet. There are two types of online learning methods which are synchronous and asynchronous learning. Synchronous learning is a session where the teacher and student are scheduled to meet over the Internet. In contrast, asynchronous learning offers a different approach. According to Arkorful (2014), asynchronous online learning is flexible when issues of time and place are considered. Students have the advantage of choosing the site and time that suits them and is not only limited to the constraint of a live synchronous learning session. A study by Budhiyani (2021) showed that the data on the learning result of students who took the combination of synchronous and asynchronous compared to only synchronous is a bit

better in terms of their academic results. For synchronous and asynchronous learning, the student's minimum score is 71, the maximum score is 100, and the mean score is 86.98. In comparison, the student's learning outcomes who took synchronous learning have a minimum score of 68 maximum score of 95 with a mean score of 81.49. Here to prove that, not only online learning offers more flexibility to student's learning exposures, it also proves that the result of the student also is not affected compared to the conventional physical classes.

Other advantages of online learning are that it offers more exciting teaching and learning processes. The teacher can use various online applications like WhatsApp, Google Meet, Zoom Meeting, Kahoot, Quizizz, and more. It depends on the teacher's creativity to use and combine the multimedia element in their teaching to make the session more enjoyable. Andoh (2012) stated the teachers' better skills would determine whether they would use technology in their education or not and how much technology they will incorporate in the teaching session. A comparative case study by Budhiyani (2021) stated that 81% of 100 respondents agree that online learning can provide a more exciting way of delivering lessons by the teachers' involvement. And in contrast, also 80% of the respondents agree that online learning can give a better communication medium between students and teachers. Where not only can we communicate in live classes, students can send an email at any time.

Conceptual Framework
Social Cognitive Theory
According to Rahmat (2018), besides using the correct learning strategies, the learning process is facilitated by the surrounding learning environment. Effective learning takes place when the environment, behavior and cognition work with one another. With reference to Figure 1, according to Bandura (1977), social cognitive theory is a learning theory that emphasizes the environment that the learners are in, which contributes to their behavior. This behavior is important in the building of the person's cognition.
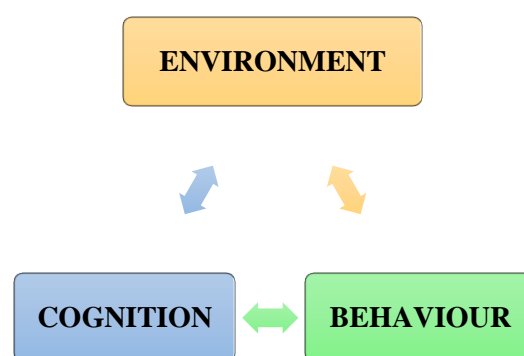

Figure 1: Social Cognitive Theory (Source: Bandura ,1977)

Online Environment
One of the important facets of online learning is interaction. Martin and Bolliger (2018) outline interaction as the interaction of learners revolving around the instructor, the learner and the content. The interaction between the learner and the instructor occurs in a two way-communication. A similar two-way communication on exchanging of ideas and information involves the learner and another learner within a course content. Meanwhile, the learner and

content interaction is considered as a personal interaction which may or may not be facilitated by the instructor of the course. It is crucial to understand the elements that could contribute to a quality interaction in the online learning environment or otherwise contribute to its downfall as online learners seem to have minimum possibilities of interaction with the faculty domain.

Environment (Learner-Instructor Interaction)
Learner-instructor interaction refers to measures taken by the expert to pique the student's interest and motivate them to study. The interaction communication is far from the standard conversation as the instructor works to impart knowledge, demonstrate and exhibit a skill or a particular attitude or value (Attardi et al., 2018). Learner-content and learner-instructor interaction, rather than learner-learner interaction, are much more significant predictors of students' perceived learning and pleasure, according to (Alqurashi, 2019). The instructor's facilitation or interaction with the learner as well as between learners are an important determinant of online learning quality (Ladyshewsky, 2013)

Behavior (Learner-Learner Interaction)
Another interaction that is of importance but often overlooked is the learner-learner interaction even though this can be a valuable resource for learning (Attardi et al., 2018). Gray and DiLoreto (2016) as pointed out by Alqurashi (2019) mentioned that there is a weak relationship between the learner-learner interaction and the satisfaction in an online learning environment. However, there are other researchers who stated otherwise indicating that learner-learner interaction has a role in student satisfaction in the online learning environment (Moore, 2014; Attardi et al., 2018).

Cognition (Learner-Content Interaction)
Considering that online learning occurred in an infinite amount of time and place, it is crucial to take the students' independent learning into consideration. Moore (1989) describes learner-content interaction as the process of engaging intellectually with the topic or the content, which alters the learners' comprehension of the subject. It is important that the content is designed and structured properly to make it easier for the student to engage with the material even though this is considered as the weakest link interaction (Xiao, 2017).
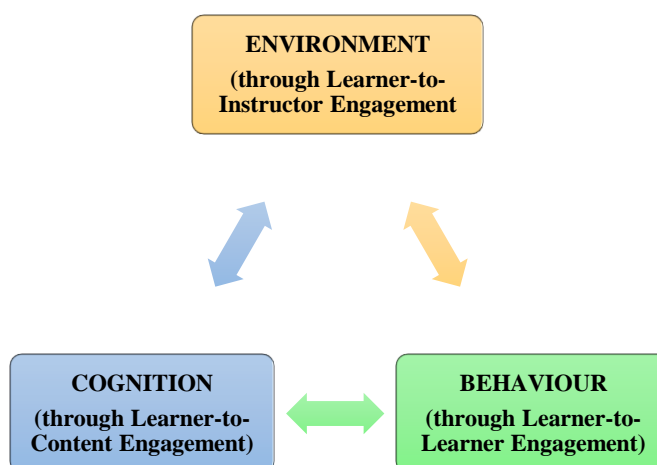

Figure 2- Conceptual Framework of the Study – Online Environment (source: Bandura, 1977; Martin & Bolliger, 2018)

Methodology

This quantitative study was done to investigate learners' perceived learning in an online environment. 255 respondents from a public university in Malaysia who experienced online learning participated in this study. A questionnaire which comprises several instruments adapted from Martin & Bolliger (2018) is used and distributed for data analysis purposes (refer Table 1). The questionnaire consists of four sections and overall has 28 items. For Section A, six items are on the demographic profile of the respondents. Section B, C and D are 5-Point Likert scales (1-strongly disagree to 5-strongly agree). Section B is on Learner-to-Learner Interaction and consisting of 6 items. Section C consists of eight items on Learner-to-Instructor Interaction. Lastly, Section D contains eight items on Learner-to-Content Interaction.

Table 1
Distribution of Items in Survey

SECTION	TYPE OF ONLINE ENGAGEMENT	NO OF ITEM
B	Learner-to-learner	6
C	Learner-to Instructor	8
D	Learner-to-Content	8
TOTAL		**22**

Table 2
Reliability Statistics for the instrument

Reliability Statistics

Cronbach's Alpha	N of Items
.928	22

Data is collected via Google Form and analyzed using SPSS version 26. With reference to Table 2, the SPSS analysis revealed Cronbach's analysis of .939, thus showing high internal reliability for the instrument. Data is presented in terms of percentages for the demographic profile and mean scores to answer the research questions.

Findings

Introduction

This section discusses the results of research conducted. The demographic profiles of the respondents were evaluated in the first section. In this section, we also discuss the findings based on the three research questions presented in the previous section. The questions were:

RQ1: How does the environment influence students' online learning?
RQ2: How does behavior influence students' online learning?
RQ3: How does cognition influence students' online learning?

Findings for Demographic Profile
Gender
Figure 3 shows that more than half of the respondents are from the female population (71.00%), and 29.00% from the male population.
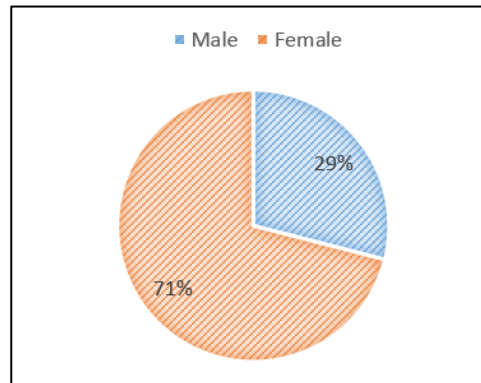

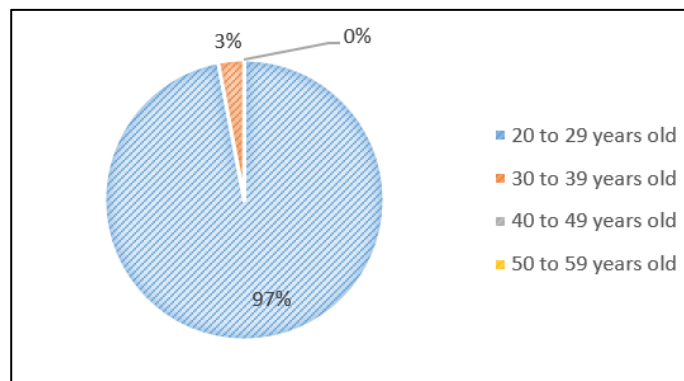Figure 3: Percentage for Gender

Age Group

Figure 4: Percentage for Age Group

The result showed that 97.00% of respondents are in the age group 20–29 years old, 3.00% were from the age group 30-39 years old, and 0.00% were from the age group 40–59 years old.
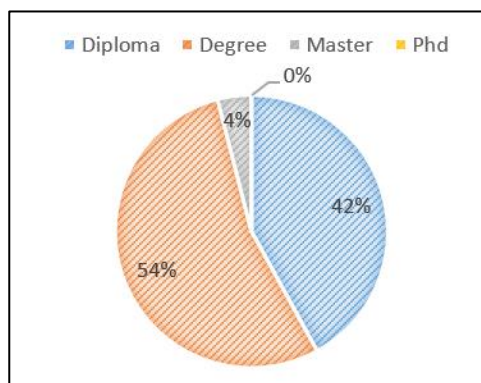
Academic Level

Figure 5: Percentage for Academic Level

The result showed that most of the respondents were degree level with 54.00% and diploma level with 42.00%, followed by master level with 4.00%. Lastly, the PhD level with 0.00% response.
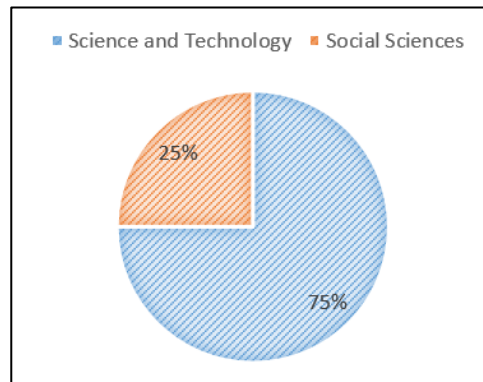
Cluster

Figure 6: Percentage for Cluster

The results showed that 75.00% of respondents were from Science and Technology clusters and 25.00% were from Social Sciences clusters.
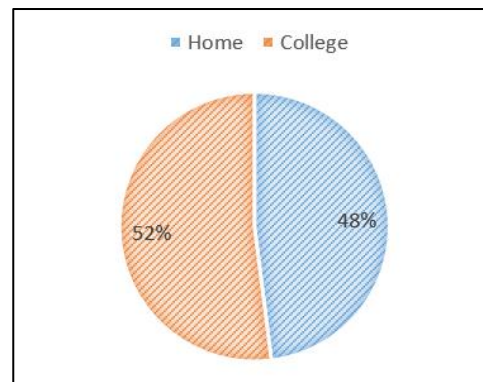
Learning Location

Figure 7: Percentage for Learning Location

The findings showed that 52.00% of respondents claimed to have received their education in a college, while 48.00% claimed to have done it at home.
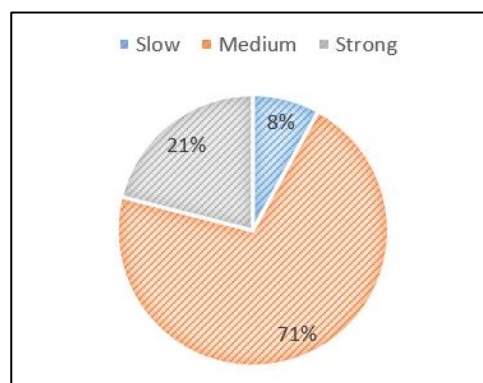
Internet Access

Figure 8: Percentage for Internet Access

Figure 8 shows that 71.00% of the respondents stated they have medium internet access, whereas 21.00% stated they have strong internet access, and only 8.00% had slow internet access.

Findings for Environment

This section presents data to answer RQ1: How does the environment influence students' online learning? Figure 9 depicts learner-to-instructor interaction in eight online learning items. It displays the mean of eight learner-to-instructor items. The items "teaching style active participation" and "instructor use more than two-way communication tools" had the highest mean at 4.00, followed by "provide feedback from previous assessment", "feedback from instructor-clear and positive", "online platforms used by the instructor effective and convenient" and "ongoing interaction after online class" with the second-highest mean at 3.90. Following that, for the item "encourage to stay engaged," the mean is 3.80. The lowest mean was 3.50 for the item "ODL (online and distance learning) encourages greater participation and interaction between learner and instructor." Overall, the data shows that learner-to-instructor interaction was higher in the items "teaching style active participation" and "instructor use more than two-way communication tools," while the item "ODL promotes greater participation and interaction among learner and instructor" had the lowest interaction.
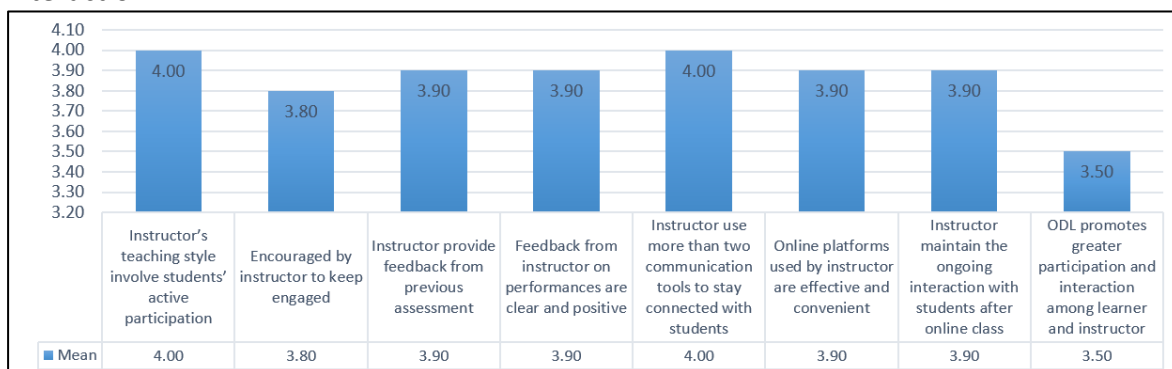

Figure 9: Mean for Learner-to-Instructor Interaction

Findings for Behavior

This section presents data to answer RQ2: How does behavior influence students' online learning? Figure 10 determines the mean score for the learner-to-learner set of questions. With the highest score mean of 4.20, we can see that although online learning happens online and over the internet individually, the student still prefers to be available and attend the class if there are peers and friends also in the same class. At this juncture, with the mean scores of 4.10 and 4.20, the most substantial factor in motivating students to finish their tasks and maintain the course is the peer's influence. With a mean score of 3.90, the respondent feels that the sense of community can help them engage in the online class and still need help from peers with the task given by their teacher via lectures. From the figure, we can also find out that with the lowest mean score of 3.70, most of the students still think that collaborative and group learning is very helpful in their online learning session. If they have a problem in studies or projects, they can refer to the colleagues for the solution, and there is no need to rely on teachers alone.
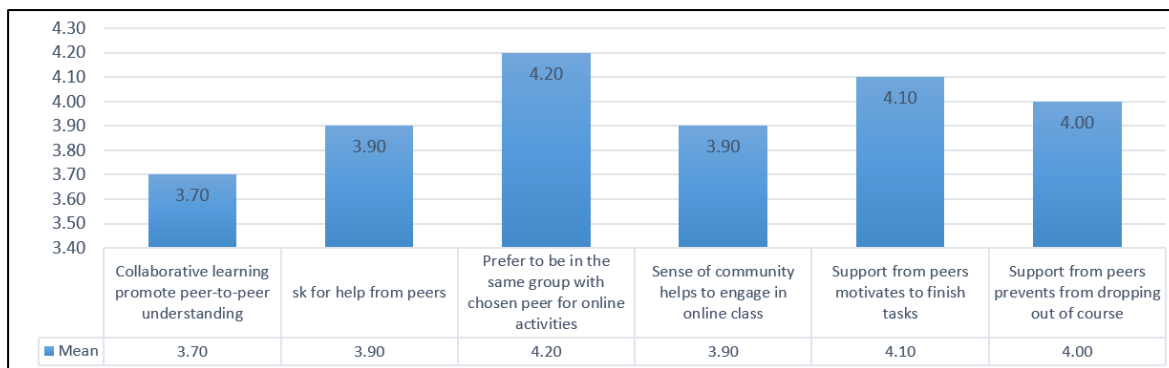
Figure 10: Mean for Learner-to-Learner Interaction

Findings for Cognition

This section presents data to answer RQ3: How does cognition influence students' online learning? Figure 11 explains the learner-to-content interaction in eight questions of the online learning environment. It shows the mean for eight items of learner-to-content interaction. Two items had the highest mean at 4.10, which were "ease of online content is important" and "it's important to get an overview of the content before the class begins". Next, the items "activities could improve the understanding of subject matter" and "use relevant knowledge wisely in the learning process" had the second-highest mean at 3.90. The second-lowest mean, at 3.80, is the items "synchronous activities could offer immediate assistance" and "activities in online learning could improve critical thinking skills." Lastly, the items "asynchronous activities could offer immediate assistance" and "ODL (online and distance learning) gives more benefits than drawbacks" had the lowest mean, at 3.70. Overall, the data indicates that the ease of online content and also getting an overview of the content before the class begins are important to the students in order to engage in an online learning environment.
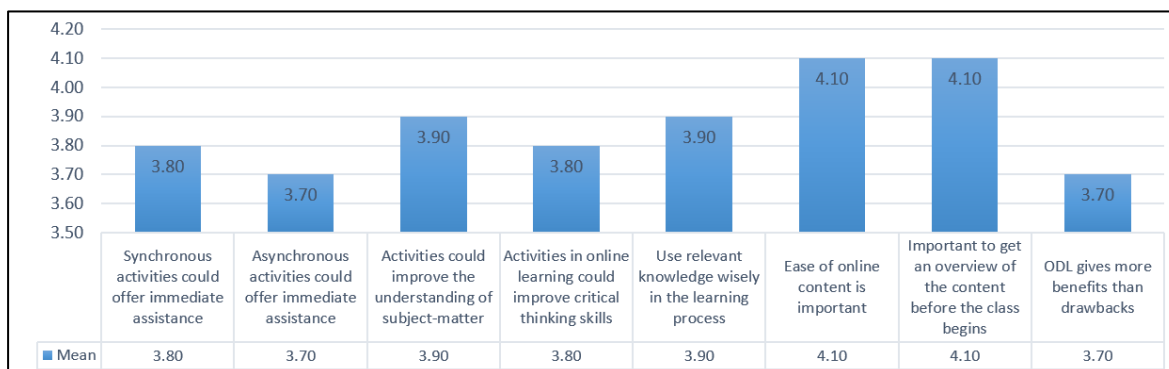

Figure 11: Mean for Learner-to-Content Interaction

Conclusion

Summary of Findings and Discussion

The recent COVID-19 pandemic has placed online learning at the forefront of the education domain requiring immediate adoption and assimilation of new technology learning systems aiming at a continuous learning process. Ensuring no disruption in the learning process with the aid of learning technology in the online environment requires proper evaluation of factors which are manifold. Providing a quality online environment has a positive influence on the students' performance. Bandura's environment, behavior and cognition are the fundamental

factors that emerged as a solution to truly comprehend the encompassing needs of the students in the online learning environment which may contribute to their better overall performance. The intention is to answer three (3) research questions.

First, how does the environment influence students' online learning? Providing a conducive environment for online learning is of utmost importance as indicated by the pivotal role played by the instructors in using the necessary communication tools in their teaching style to promote active participation between the learners and with the instructors. The findings highlighted that the "instructor's teaching style" and "the use of more than two communication tools to stay connected with the students" were the main points valued the most by students in the learning environment. Implementing appropriate teaching style and supporting the communication with a few channels could have impacted the students' online learning environment. The quality interaction between the learners and the instructor in the online environment is one of the many imperative factors to foster the efficacy of online learning as mentioned by (Budhiyani, 2021). Online learning environment necessitates different teaching strategies and approaches as well as various communication platforms to support online learning, than that of the traditional classroom. Instructors who can modify their instructions can counter detrimental interactions thus encouraging a strong sense of positive online learning environment.

Secondly, how does behavior influence students' online learning? The learner-learner interaction in the online environment is somewhat similar to the traditional setting where peers' influence and support create a sense of community that drives the motivation to fulfill the learning tasks. Items such as "prefer to be in the same group with chosen peers", "support from peers motivates to finish tasks" and "support from peers prevents from dropping out" were highly regarded by the students. These findings indicated that peers play a significant part in the somehow 'make or break' online learning environment. These learners also feel that collaborative learning has also provided the kind of assistance similar to the one provided by the instructors when faced with uncertainties and problems. In the long run, such support may help to minimize the attrition rate that is prevailing among online learners or online courses.

Lastly, how does cognition influence students' online learning? Learner-to-content interaction stems from the accessibility of the content made available with ease to the learners. "Ease of online content" and "getting the overview of the content prior to the class" in the learner-to-content interaction component are the main points that could impact the students within the online learning environment. This is crucial for the students to have easy access to the learning materials required for them to go through in order to have the right mind set for the content to be delivered. As with any educational psychology approach, it is imperative that learners are provided with the overview of what the content is all about prior to the class session. Thus, the content and its course structure must be designed and developed accordingly, in order to foster learners' engagement and understanding of the same to ensure the quality interactions. This in turn promotes students' satisfaction and better performance in the online learning environment.

The essence of this study emphasize that academicians must be flexible to accommodate and adapt to different teaching styles while employing an open communication channel to support

the students online learning sessions. Creating a conducive online learning environment that encourage learners' community support with accessible content further improves the overall online learning environment and eventually the learners' performance.

Pedagogical Implications and Suggestions for Future Research

The findings of this research indicates that the learner-instructor and the learner-content interaction are considered as significant elements that may make or break the online learning environment. Many literatures indicate that learner-learner interaction as relatively insignificant in the satisfaction outcome of the online learning environment, however, this study has shown that the learners look highly to the comfort being among peers creating a bond within the learning community. Thus, it is crucial to thoroughly study each of the interaction elements' effect on the learners' online learning environment with the important focus of providing a quality learning environment. Modifying and improving the online learning environment, which is fast becoming a great player in the education landscape, is certainly the way forward if the concerned stakeholders intend to create an online learning environment of caliber that could benefit many learners and to avoid the detrimental effects involving attrition.

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