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Exploring Learning Based on the Perception of Open and Distance Learning (ODL)

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Abstract

With an emphasis on learner-to-learner, learner-to-instructor, and learner-to-content interactions, this study investigates how students view various forms of interactions in Open and Distance Learning (ODL). Understanding these relationships is critical to raising student engagement and academic achievement as online learning emerges as a significant educational option. 264 undergraduate students made up the sample size for this quantitative study, which used a structured survey modified from Martin and Bolliger (2018). The results show that while learner-to-instructor interactions are heavily impacted by teaching style, feedback, and communication technologies, learner-to-learner interactions are crucial in promoting motivation, teamwork, and peer support. Furthermore, it was discovered that learner-to-content interactions were successful in enhancing subject comprehension and knowledge application; nevertheless, difficulties in critical thinking engagement and development still exist. Students' opinions on ODL interactions were generally positive, with many highlighting the value of interactive learning techniques and organised support networks. The study ends with suggestions for bridging the gap between traditional and online learning environments by improving instructional strategies and utilizing cutting-edge digital tools to increase participation.

Keywords: Interaction, Open and Distance Learning (ODL), Teaching Style, Motivation

Introduction

Background of Study

As the world fully embraces globalisation, the norms of society and every aspect of it changes. Education, being one of the most important aspects of society building, now has

fully welcomed online learning and it is here to stay for many researched-proven benefits. Online learning accelerated during the Covid-19 pandemic as educational institutions sought it as the cure to learning-halt experienced around the world. Online learning is now recognised as an essential alternative when a learner's education is disrupted due to reasons such as health issues, political unrest, or natural disaster. Though it is not without any disadvantages, online learning offers plenty of benefits especially in terms of accessibility and cost-effectiveness

Similarly, open and distance learning (ODL) has also become one of the tools for teaching and learning when face-to-face instruction is not possible (Kamaludin and Sundarasen, 2023). ODL is the answer for learners who opt not to attend physical classes for various reasons such as geographical limitations, time and financial constraints, and other personal reasons. Institutions offering ODL usually provide learning resources in forms of online lectures, discussion forums, and academic support services such as tutoring and mentoring. Above all, it is imperative that learners of ODL to have the necessary support, resources, and structure to succeed in this type of learning environment.

Despite it being online, interaction in an ODL classroom is still vital. It plays an important role to facilitate teaching and learning albeit in a different form. Interaction in online learning is not just about learner-to-instructor communication, but it also involves learner-content interaction, learner-instructor interaction, and learner-learner interaction. These interactions may vary from institutions to institutions, but they share the same principles which are to aid students and ease the process of learning.

Statement of Problem

E- learning is considered as a motivational method for developing self-learning and language pedagogy for nowadays digital students (Hazaymeh. W.A 2021) Data analysis indicated that 60 undergrad students had shown a positive attitude of online distance learning which empowered them to develop high scores of creativity, different soft skills and language proficiency. Undeniably, positive feedback was gathered through the introduction of ODL in most institutions.

Online learning is considered as a motivational method for developing self-learning and language pedagogy for nowadays digital students (Hazaymeh. W.A 2021). Data analysis in the above study indicated that 60 undergraduate students had shown a positive attitude towards ODL which, according to them, empowered them to develop high scores of creativity, soft skills, and language proficiency. Undeniably, positive feedback was also indicated in other studies related to the introduction of ODL in other institutions

While ODL offers many advantages, it was not without any drawbacks particularly for university students. Investigations on challenges faced by the group in regard to ODL were done by Madhubhashini (2022) at the Open University of Sri Lanka. He identified ICT literacy, infrastructure limitations, and technical challenges as the main barriers of ODL. Other issues found were students' own health problems, financial constraints, inadequate support from the institution, and unreliable online platform

Other than that, Soliman et al. (2022) revealed that despite the overall satisfaction experienced by university students in Egypt, online learning had been criticized for instructors' lacklustre online teaching technique. The study noted that university students feel the teaching staff should be provided adequate training so they could overcome their anxieties when dealing with computer and technology, especially when they are among the older generations

Some other challenges include ineffective time management which is associated with students' difficulties to adapt with the learning environment and to stay focused without support from friends and peers as if in real classrooms. Others claimed that there is a gap in communication between instructors and students, often creating miscommunication among them. Instructions and expectations may be unclear as this asynchronous communication can make a greater obstacle. To add to worsen conditions, home learning environments are often filled with distractions where students need to set up their own strategies to minimise their own distractions.

Even though several studies have demonstrated how Online Distance Learning (ODL) can promote self-learning, creativity, soft skills, and language competency (Oyinloye, 2022), some parts of the problems are still not well understood. Infrastructural limits, ICT literacy, financial constraints, and insufficient institutional support have been the main topics of existing study (Aruleba and Jere, 2022). Other issues have included teachers' lack of training and inefficient online teaching methods (Na and Sung, 2021). Nonetheless, there is a clear research vacuum concerning:

1. How ODL Affects Student Learning Outcomes Over Time Although there have been some short-term benefits, such more creativity and self-learning, further research is required to ascertain whether these benefits last over time.
2. ODL's Cognitive and Psychological Impact on College Students There is still insufficient research on the effects of extended screen time, social isolation, and mental health problems brought on by a lack of peer connection and misunderstandings with teachers.
3. Adaptation Strategies for Time Management and Engagement: Even though students have trouble managing their time and avoiding distractions, not much study has been done on practical ways to improve motivation, focus, and output in an online learning environment.
4. Instructor-Student Communication in Asynchronous Learning: Although studies have identified communication difficulties, they have not yet investigated systematic interventions to close the gap and enhance the clarity of expectations and instructions given online.

Future studies can help improve ODL's efficacy by filling in these gaps, giving college students a more comprehensive and inclusive educational experience.

Research Questions

- How do learners perceive learner-to-learner interaction in ODL?
- How do learners perceive learner-to-instructor interaction in ODL?
- How do learners perceive learner-to-content interaction in ODL?

Literature Review

Drawbacks of Online Learning

Malaysian tertiary students face a number of difficulties when learning online. One major problem is the absence of in-person interaction, which can impede collaborative learning experiences and cause emotions of loneliness. This lack of face-to-face interaction with peers and teachers may hinder the development of critical social skills and lower motivation (Salleh et al., 2020). Technical challenges also play a crucial role, particularly in rural areas where internet connectivity is often unreliable. Students in these areas may struggle to access online course materials, attend virtual lectures, or submit homework, compromising their academic achievement (Mhandu, Mahiya & Muzvidziwa, 2021). Furthermore, online learning necessitates great self-control and good time management abilities. Without the controlled environment of traditional classrooms, some students struggle to stay motivated and manage their study schedules successfully (Fitrianto and Saif, 2024). These problems underscore the importance of comprehensive measures to improve the effectiveness of online learning for Malaysian tertiary students.

Benefits of Online Learning

Online learning provides various benefits to Malaysian tertiary students, particularly in terms of accessibility, flexibility, and cost-effectiveness. According to Paudel (2021), one of the primary benefits is the ability to access educational materials and attend lectures from any location, which is especially useful for students in rural areas who would otherwise face geographical constraints to higher education. In addition, online learning allows students to choose their own study timetables, allowing them to balance academic responsibilities with other obligations (Samra, Waterhouse and Lucassen, 2021). This flexibility promotes self-discipline and independent learning, both of which are necessary for lifelong learning.

Students' Interaction in Online Distance Learning

A key element of online distance learning is student interaction, which has a big impact on engagement, understanding, and general academic achievement (Kim and Kim, 2021). Discussion boards, group projects, video conferencing, and real-time messaging are some of the ways that people interact in virtual learning settings. According to research, actively engaging with these interactive components promotes a sense of community and lessens the emotions of loneliness that are frequently connected to online learning (Li, 2022). Peer-to-peer connection also promotes critical thinking, knowledge retention, and cooperative learning (Balasubramanian, 2023). Effective involvement, however, can be hampered by issues including disparities in digital literacy, lack of instant response, and technological hurdles. By promoting candid conversations, and leveraging digital tools that foster teamwork, educators may play a critical role in fostering meaningful interactions (Zimon, 2024). Online education may close the gap between traditional and virtual classrooms by creating an interactive learning environment that improves student motivation, engagement, and academic success (Farley, 2022).

Past Studies on Benefits of Online Learning

Previous studies have highlighted the benefits of online learning, particularly in the context of the COVID-19 pandemic. For instance, Akpen et al. (2024) conducted a systematic review examining the impact of online learning on students' engagement and performance. The study included 18 peer-reviewed articles published between 2019 and 2024, focusing on

students' engagement and performance in online learning environments. The findings revealed that online learning improved academic performance due to its flexibility and accessibility, allowing students to learn at their own pace. However, challenges such as decreased engagement and isolation were also noted, suggesting the importance of interactive elements and adequate instructor-student interactions to enhance students' engagement and performance.

Additionally, Teo, Anthonysamy, and Koo (2023) investigated the impact of online learning on psychological well-being and perceived academic performance of Malaysian tertiary students. The study, which included 288 students from 49 higher learning institutions in Malaysia, revealed that intrinsic motivation positively influenced students' enthusiasm and perseverance, which in turn enhanced their perceived learning performance and psychological well-being. Corroborating this, Akuratiya and Meddage (2020) further reported that students had favourable perceptions of online learning, appreciating the integration of technology for enhancing engagement and fostering self-discipline. Overall, these studies collectively underscore the transformative potential of online learning in addressing diverse educational needs and providing meaningful educational benefits.

Conceptual Framework

Figure 1 shows the conceptual framework of the study. According to Rahmat et al. (2021), learning takes place when the student engages with the learning task, his/her peers and also the instructor. This study is done using Martin and Bolliger's (2018) instrument for type of interaction in online learning and they are; (a) learner-to-learner,(b) learner-to-instructor and (c) learner-to-content.

Learner-to-learner interaction means opportunities created for learners to interact with other learners for example, through peer-evaluation, games, competitions, discussions, presentations, and through peer-evaluation. Whereas learner-to-instructor interaction means instructor interacts with students individually and as a group. This type of interaction takes place in multiple forms through various communication channels for example through introductions in a bulletin board, the creation of participant profiles, feedback and office hours. Subsequently, learner-to-content interaction means learners can interact with the course content in multiple ways for example, through multimedia, activities, assignments, self-assessments and projects.

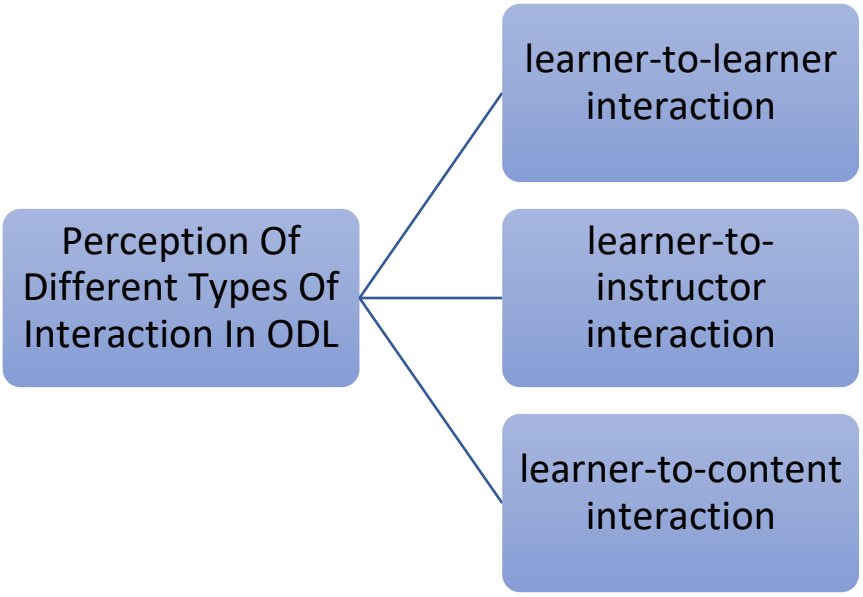

Figure 1- Conceptual Framework of the Study-Perception of Different Types of Interaction in ODL

Methodology

This quantitative study is done to explore motivation factors for learning among undergraduates. A purposive sample of 264 participants responded to the survey. The instrument used is a 5 Likert-scale survey and is rooted from Martin & Bolliger (2018) to reveal the variables in table 1 below. The survey has 4 sections. Section A has items on demographic profile. Section B has 6 items on learner-to learner type of interaction. Section C has 8 items on learner-to-instructor and section D has 8 items on learner-to-content types of interactions.

Table 1
Distribution of Items in the Survey

SECTION	TYPE OF INTERACTION (Martin & Bolliger, 2018)	No of Items	Reliability Coefficient
B	Learner-to-learner	6	.749
C	Learner-to-instructor	8	.849
D	Learner-to-content	8	.865
	Tot no. of Item	22	.924

Table 1 also shows the reliability of the survey. Individual and overall analysis of the items was done to reveal the reliability of the instrument. Section B revealed a Cronbach alpha of .749, section C revealed a Cronbach alpha of .849 while section D revealed a Cronbach alpha of .865. The overall Cronbach alpha of all 22 items is .924; thus, revealing a good reliability of the instrument used. Further analysis using SPSS is done to present findings to answer the research questions for this study

Findings

Mean score values for learner-to-learner, learner-to-instructor, and learner-to-content type of interaction constructs are interpreted according to Pallant (2005) as illustrated in the following table.

Table 2
Interpretation of Mean Score, Pallant (2005)

Mean Score	Interpretation
1.00 - 2.33	Low
2.34 - 3.66	Moderate
3.67 - 5.00	High

Findings for Demographic Profile

Table 3 demonstrates a slight female preponderance in the study sample, reflecting a 22% higher representation of females compared to males. In contrast, Table 4 delineates the distribution of participants across diverse academic disciplines, where a notable majority (54%) of participants were from the business discipline, while the remaining 42% are enrolled in science and technology discipline and 4% in arts and social science. Table 5 reveals that a significant proportion of participants attended private universities as opposed to public ones.

Q1-Gender

Table 3
Percentage for Gender

1	Male	39%
2	Female	61%

Q2-Discipline

Table 4
Percentage for Discipline

1	Science & Technology	42%
2	Arts & Social Sciences	4%
3	Business & Management	54%

Q3-Type of University

Table 5
Percentage for Type of University

1	Public	47%
2	Private	53%

Findings for Learner-to-Learner Interaction

This section presents data to answer research question 1- How do learners perceive learner-to-learner interaction in ODL?

Table 6
Mean for Learner-to-learner Interaction

No	Statement	Mean	Interpretation
1	L2LQ1 Does collaborative learning promote peer-to-peer understanding?	3.6	Moderate
2	L2LQ2 Are you more likely to ask for help from your peers?	3.9	High
3	L2LQ3 Do you prefer to be in the same group with your chosen peer for online activities?	4.2	High
4	L2LQ4 Do you think that the sense of community helps you to engage in online class?	3.6	Moderate
5	L2LQ5 Do you think support from peers motivates you to finish tasks?	4	High
6	L2LQ6 Do you think that support from peers prevents you from dropping out of course?	3.7	High

Table 6 shows the average scores for the six components of learner-to-learner interaction in ODL, as measured by the survey. L2LQ5 and L2LQ6 recorded high mean scores which informs us that support from peers is a key motivational factor in ODL. High mean scores for L2LQ2 and L2LQ3 also tells us that participants prefer to choose their own peers in ODL as learning partners are also a source of help whenever there is any difficulty in learning. All six components had average scores above 3.0, which suggests that learners generally agree that learner-to-learner interactions do play a good role in ODL.

Findings for Learner-to-Instructor Interaction
This section presents data to answer research question 2- How do learners perceive learner-to-instructor interaction in ODL?

Table 7
Learner-to-Instructor Interaction

No	Statement	Mean	Interpretation
1	L2IQ1 Does your instructor's teaching style involve students' active participation?	3.9	High
2	L2IQ2 Do you feel encouraged by your instructor to keep engaged in online classroom?	3.5	Moderate
3	L2IQ3 Does your instructor provide feedback from your previous assessment?	3.7	High
4	L2IQ4 Do you feel feedback from your instructor on your performances are clear and positive?	3.8	High
5	L2IQ5 Does your instructor use more than two communication tools to stay connected with students?	3.9	High
6	L2IQ6 Do you think that online platforms used by your instructor for your online class are effective and convenient?	3.7	High
7	L2IQ7 Does your instructor maintain the ongoing interaction with students after online class?	3.8	High
8	L2IQ8 Do you think ODL promotes greater participation and interaction among learner and instructor?	3.3	Moderate

Table 7 presents the mean values pertaining to how learners perceive learner-to-instructor interaction in ODL. Six items attain high mean scores ranging from 3.9 (L2IQ1, L2IQ5) to 3.7 (L2IQ3 and L2IQ6). This informs us that participants feel their ODL instructors interact well with them by having a learner-centred teaching style, using multiple communication tools, choosing effective and convenient online platforms, and maintaining interactions after class. Nevertheless, despite these efforts, participants' motivation to remain engaged in ODL remains average. They also moderately agree that ODL promotes greater learner-to-instructor interaction.

Findings for Learner-to-Content Interaction

This section presents data to answer research question 3- How do learners perceive learner-to-content interaction in ODL.

Table 8
Mean for Learner-to-Content interaction

No	Statement	Mean	Interpretation
1	L2CQ1 Do you think that synchronous activities (i.e. online discussion) could offer immediate assistance?	3.3	Moderate
2	L2CQ2 Do you think that asynchronous activities (i.e. assignment) could offer immediate assistance?	3.4	Moderate
3	L2CQ3 Do you think the activities in online learning could improve the understanding of subject-matter?	3.8	High
4	L2CQ4 Do you think the activities in online learning could improve your critical thinking skills?	3.5	Moderate
5	L2CQ5 Do you think you can use relevant knowledge wisely in the learning process?	3.7	High
6	L2CQ6 Do you feel that the ease of online content is important?	3.8	High
7	L2CQ7 Do you feel that it is important to get an overview of the content before the class begins?	4	High
8	L2TQ8 Do you think that ODL gives more benefits than drawbacks?	3.3	Moderate

Table 8 presents the average scores for how learners perceive learner-to-content interaction in ODL. Notably, item L2CQ7 demonstrates the highest mean score (4) which indicates that many participants agree that it is important for them to get an overview of the learning content before an ODL class begins. They also agree that the ease of an online content matters in ODL. Items L2CQ1 and L2CQ2 investigate how learners perceive synchronous and asynchronous activities in terms of offering immediate assistance in learning. Both items recorded moderate mean scores. The mean scores for L2CQ3 and L2CQ4 also revealed that participants highly agree that activities in ODL could improve their understanding of subject matter. However, only a moderate level of agreement is achieved regarding improvement in critical thinking skills through ODL activities. It is also wise to note that participants also agree that they can use any relevant knowledge wisely in their ODL learning process. However, participants only moderately agree that ODL gives more benefits to their learning than drawbacks.

Conclusion

Summary of Findings and Discussions

Overall, the findings of the research showed that learners have generally good perception of interactions within the ODL spheres. In regards to learner-to-learner interactions, high levels of agreement on items that investigate the role of peers indicate that familiarity amongst learning peers is important in ODL as it puts learners at ease. This encourages learners to ask for help in learning and makes collaboration more effective. Participants of this research also contribute peer support as their motivation to finish tasks and keep on learning. For the second construct, the findings showed that participants experienced good quality of learner-to-instructor interaction. This good interaction can be attributed to learner-centred teaching style, clear and positive feedback by instructors, usage of a variety of tools, utilisation of appropriate online platforms, and the ongoing interactions maintained by instructors. Interestingly, participants only moderately agree that they feel encouraged by their instructors to keep engaged in online classrooms. Participants also moderately agree that ODL promotes participation and interaction among learners and instructor. The third and final construct saw some particular findings. Though generally, all items recorded moderate and high mean scores which indicates participants perceived their learner-to-content interaction as good in nature, there are some findings which might need further investigation. For example, participants' responses indicated that both synchronous and asynchronous activities moderately offer immediate assistance in learning. Hence, this inconclusive data could be explored further. Findings of this research also showed that participants moderately agree that ODL gives more benefits than drawbacks.

Pedagogical Implications and Suggestions for Future Research

This study provides valuable insights into how learners perceive the three main interactions in ODL. The findings of this study should have implications on online learning instructions. As participants of this contribute peer support as a motivational factor in learning, instructors or teachers should enhance learner-to-learner interaction. This could be done by encouraging structured peer collaboration through activities such as group work, discussion forums, and peer mentoring. Structured peer collaboration could strengthen familiarity which learners appreciate and need in order to ask for support. Besides, teachers also need to improve learner-to-instructor interaction by emphasizing on personalised feedback and exploring active engagement techniques. Finally, it is recommended that teachers find ways to optimize learner-to-content interaction. As ODL is technology based, it is time that we utilize adaptive learning technologies and AI-driven feedback mechanisms to personalise learning experiences and improve content accessibility.

Given the evolving nature of online learning and the complexities of interactions, additional research is necessary to provide better understanding and improve the quality of ODL instructions. As mentioned earlier, peer support plays a crucial role in ODL. Therefore, it would be fruitful to explore the role of peer support in ODL. Investigation may be made into the long-term impact of peer interactions on students' retention and academic performance. Researchers might also be interested in examining the effectiveness of different peer engagement models on students' academic performance. It is also important for teachers to understand the influence of their engagement strategies on learner's motivation. Hence, identifying how various, cutting-edge, learner-centred instructor engagement strategies work on learners' motivation is a research worth exploring. Finally, as the findings of this study

recorded both moderate agreement on support within synchronous and asynchronous activities, future researchers could compare the effectiveness of both types of learning in terms of students' outcomes and perceived support.

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