

## THE STUDY ON ODL MENTORING PROGRAM IN ASSISTING THE REPEATER STUDENTS FOR CIVIL ENGINEERING COURSES

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### Abstract

The Open and Distance Learning (ODL) platform as an extended classroom without regular face-to-face contact between educators and students has significantly impacted students' performance. With no real face-to-face interaction and consultation, ODL classes can be challenging to students. This is even more prevalent among repeaters who are normally considered as weak students. Therefore, there is a need for a virtual mentoring project to assist the repeaters during ODL season. This study is to observe the students' performance feedback from repeater students for civil engineering courses through the ODL mentoring program. The questionnaires obtained from the program were analyzed to achieve this objective. The analysis shows that all respondents agreed that online mentoring program enhanced their understanding of the topics which resulted into 86% of them, 12 out of 14 repeater students passed the course. The success of the ODL mentoring program in assisting repeater students was presented in detail. The findings can help educators develop strategies to assist repeater students to meet the expectations and requirements of the courses taken. Advancements of enhanced strategies would help improve the success of implementing the ODL mentoring program for repeater students from stopping repeating the course more than once.

**Keyword:** civil engineering courses, mentoring program, Open and Distance Learning (ODL), repeater students.

### Introduction

Due to global health crisis of COVID 19, Open and Distance Learning (ODL) has tremendously grown as a trend among higher education institutions when it is taken as an alternative learning method for the new norm. Regardless of its growth and benefits, students who enroll with ODL have been shown to face many individual, institutional, and instructional challenges (Maxwell, 2015). The challenges affect our usual-daily norms, and better preparation is required for unexpected crises such as financial issues, disruptions in schedules, and ongoing classes while educators and students face additional stress (Rahman, 2020). According to Musa, Rosle, Baharuddin, and Sara (2020), the factors such as self-sufficient learners, the flexibility of access to learning materials, experienced learners studying strategically, learner control over the pace of study, and assessments associated with implementing an ODL reflect the students' performance. Therefore, providing ODL mentoring program to assist the repeater students is crucial to avoid adverse impacts on students' performance that can eventually result in a repetitive issue.

Few studies address the effect and initiative that could assist the repeater students while introducing the ODL system. The prior study revealed that students' attitudes and readiness influenced students' performance in the implementation of online learning (Engin, 2017;

Musa et al., 2020). In some conditions, more students have difficulties communicating with educators or peer students and feel dissatisfied. The challenges on student readiness consist of time management, environment, and staying focused for long-duration online learning (Amir et al., 2020). The prior study also identified that students' self-confidence levels on online learning readiness are 51% in online communication self-efficacy behavior, 47% in computer/Internet self-efficacy behavior, and 43% in self-directed learning behavior. Online communication usually involves asking questions during online discussions. Computer efficiency is more to the capability to access information and learn the software's primary function. Implementing own study plans, having good time management, determining own learning targets, and having high expectations for learning performance are examples of success in self-directed learning behavior (Engin, 2017). Thus, the student's readiness is vital in optimizing their involvement in the ODL process and this is even more necessary for repeater students whose weak grasp of certain courses might add up to the already challenging ODL session.

Virtual connectivity seems complicated for weaker students in the learning process due to social distancing and less opportunity for face-to-face contact. Technology becomes a barrier that collapses the time and space between mentors and mentees, especially for students who persist in finding a mentor (Abdelhamid, ElHawary, Gorgy, & Alexander, 2021). Compassion in the mentorship relationship necessitates intimate knowledge about who people are, what they value, and what they experience (Lasater, Smith, Pijanowski, & Brady, 2021). The mentoring program would be beneficial for the entire mentoring field if it has an excellent tool to assess capabilities for transitioning to e-mentoring (Kaufman et al., 2021). In other words, effective communication modalities are necessary to ensure ODL mentorship becomes a success.

This paper aims to gauge the students' performance feedback from repeater students for civil engineering courses through the ODL mentoring program. This aim was fulfilled by collecting the survey after following the mentoring program organized by team SIMPLE from the repeater students participating in this faculty initiative program. Fulfilling those targets can help educators develop strategies to structure the ideas in assisting repeater students to meet the expectations and requirements. This paper contributes to the body of knowledge in analyzing factors that influence the success of the ODL mentorship program for repeater students.

## **Literature Review**

### **ODL Versus Students Learning**

The implementation of ODL leads to a distance between students and educators, between student and student, and between institution and student. The adaption of technology usage or Information and Communication Technology (ICT) in the learning process is the most appropriate solution to overcome the issue of distance (Gaur, 2016). The demand for ODL is influenced by a range of factors, including emerging ICTs, liberalization, privatization, and globalization (Ghosh, Nath, Agarwal, Nath, & Chaudhuri, 2012). However, the effectiveness of the technology depends on the capability of the product used to achieve the goals with accuracy and completeness in the distance learning process (Gaur, 2016).

Interactive multimedia tools embedded with video components are invaluable to increase students' understanding and remembering the complicated or technical knowledge. The interactive and comprehensive videos positively impact the students in the sense of their learning curve and retention rate until 60% (Othman, Kadar, Umar, & Ahmad, 2021). Besides, a prior study has also found that the course design could produce substantial positive influence on students' online class. The course design requires essential details like course content, educational goals, course structure, and course output in a consistent manner so that

students would find the e-learning system beneficial for them and it enables students to use the system, and that leads to student performance (Gopal, Singh, & Aggarwal, 2021).

The prompt feedback from educators after delivering the course significantly influences the quality of the students' learning process. Effective feedback is an approach that provides quality information to students and facilitates students' development to be more independent learners by monitoring, evaluating, and regulating their learning (Ahea, 2016; Gopal et al., 2021).

### **Mentoring Program**

Mentoring is defined as a universal relationship indirectly focused on interpersonal relationships, developing a relatively unseasoned protege through dialogue and reflection. The primary function of such a relationship is to develop the learning capacity by transmitting knowledge, organizational culture, wisdom, and experiences. Protégé in mentoring relationships often experience a multitude of benefits: improved self-confidence; increased availability of advice and relevant information; an opportunity for encouraging reflection on practice; additional personal support; improved effectiveness; an awareness of culture, politics, and philosophy of the organization; and, access to a confidant for concerns or ideas (Knippelmeyer & Torracco, 2007).

The demand for mentoring programs increases when students set themselves up for failure by taking poorly prepared courses. According to the prior study, failure rates were not significantly different between the two modes of course delivery. Nevertheless, intrusive academic advising or more personal contact with the educator, whether face-to-face or electronically through online chat, texting, or discussion boards, definitely influences students' continued success with marginal cumulative GPAs, regardless of the course delivery mode chosen (Wilson & Allen, 2011).

Thus, higher education educators should equip students with independent and creative study skills with appropriate assistance and counseling service to seek practical assistance from the correct and relevant parties when they are in need (Azmi & See May, 2021). Additionally, lecturers require to enhance their effort engaging students during online class to encourage them to feel like learning face-to-face, reminding students of the progress for assignment or preparation for examination via electronic medium rather than in person (Wilson & Allen, 2011).

### **Methods**

The study on the feedback of online mentoring in assisting repeater students for civil engineering courses through the ODL mentoring program was carried out using closed-ended survey questions. This technique is an appropriate research method that is widely used for quantitative research. A structured question was chosen for this study with the design of definite concrete and predetermined questions. The questions are presented with the exact wordings and order to all respondents in general form questionnaire. All questions and answers are specified, and respondents' comments are also minimized (Roopa & Menta Satya, 2012). The target respondents of this study are the repeater students taking Solid Mechanics course (ECS238), Diploma in Civil Engineering UiTM Cawangan Pahang that participate in the online mentoring via ODL mentoring program. Overall, there are 14 respondents who comprise of 6 female and 8 male students.

### **Results and Discussion**

#### **Students' perception of the ODL mentoring program**

The distribution of data regarding the feedback on online mentoring by repeater students from EC110 is presented in **Table 1**. According to **Table 1**, 100% of respondents agreed that

the online mentoring program helped them understand more about the topics. The program involves small groups discussions, and this allows the lecturer to do a one-to-one approach and more focus to explain the topic that the students have difficulty understanding. In addition, the students can ask multiple questions frequently with on-the-spot discussions and get immediate answers from the lecturer. A prior study revealed that students positively perceived mentoring as it made them feel more comfortable communicating and provided sufficient material and moral support in formal or informal mentoring activities. As a result, it may lead to mentees' enhanced academic performance in the higher institution (Ismail, Jui, & Kho, 2014).

Moreover, in small group mentoring, the mentor can stimulate their students' interest and increase their confidence to learn the course. Overall, the results also show that the respondents agreed well with the implementation of the mentoring program during ODL. The result obtained indicate that the program has been successful and benefits both students and lecturers more.

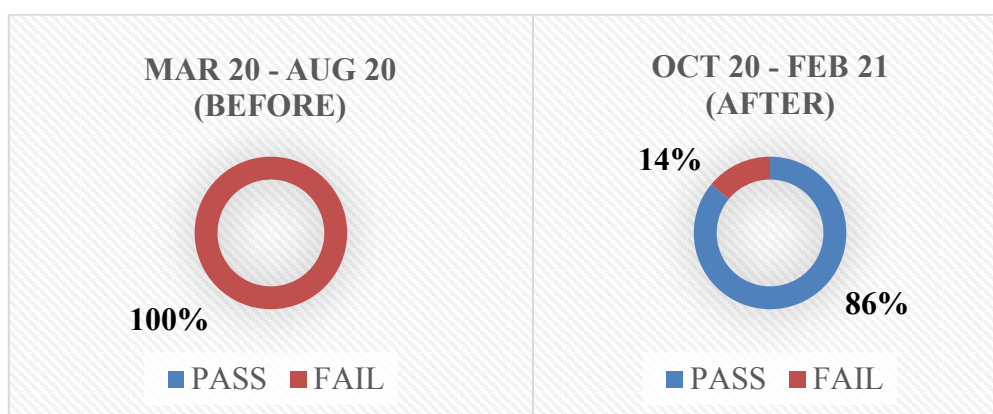
**Table 1** ODL mentoring program students' response to questionnaire

<b>Statement (N=14)</b>	<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neutral</b>	<b>Agree</b>	<b>Strongly agree</b>
The learning objectives are clear	0	0	0	8 (57 %)	6 (43 %)
This program helps me to understand more about the topics discussed	0	0	0	5 (36 %)	9 (64 %)
This program exposes me to the skills of answering the questions	0	0	0	6 (43 %)	8 (57 %)
This program provides good delivery and structured teaching	0	0	0	5 (36 %)	9 (64 %)
The course topics are explained in detail	0	0	0	3 (21 %)	11 (79 %)
Mentor stimulates student's interest	0	0	0	5 (36 %)	9 (64 %)
The time is used effectively during learning session	0	0	0	3 (21 %)	11 (79 %)
Mentor encourages students to ask questions frequently	0	0	0	2 (14 %)	12 (85 %)
Facilitator helps student to understand and answer the questions	0	0	0	2 (14 %)	12 (85 %)
This program provides convenient and relevant short notes	0	0	1 (7 %)	6 (43 %)	7 (50 %)
The venue choose for teaching and learning is conducive	0	0	1 (7 %)	8 (57 %)	5 (36 %)

This program should be held again for next semester	0	0	2 (14 %)	5 (36 %)	7 (50 %)
Overall, this program is successful and useful for students	0	0	0	6 (43 %)	8 (57 %)

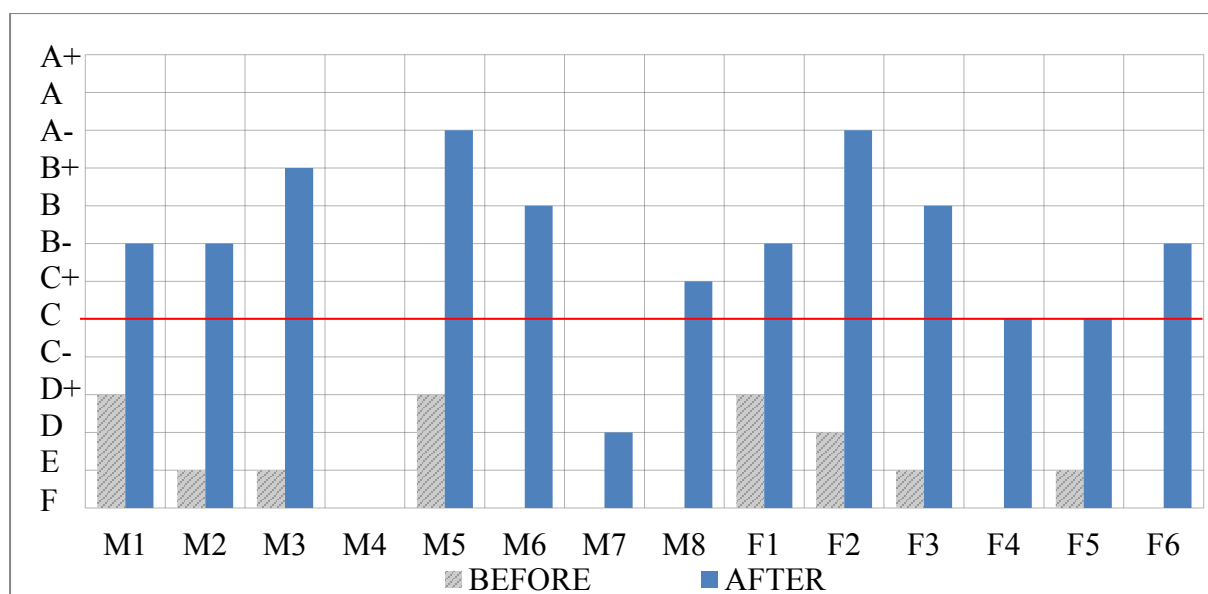
### Student's performance pre and post ODL mentoring program

**Figure 1** shows the percentage of students' failure for the two selected semesters conducted in the ODL platform. Semester March 2020 to August represents the failure rate before the online mentoring, while October 2020 to February 2021 represents the rate after online mentoring. The findings of this study confirm that online mentoring program does act as an essential predictor of repeaters' academic performance. The failure rate of the repeaters decreases from 100% to 14%, indicating that the mentoring activities are successful in providing adequate learning material and motivational support. As a result, it may lead to students' enhanced results for their repeated subject.



**Figure 1** Results comparison between before and after the mentoring program

The data obtained from respondents are analyzed based on gender, as shown in **Figure 2**. The results show that 100% of female respondents (6 students) fully benefit from the mentoring program, while only 75% of male respondents (6 out of 8 students) greatly benefit from it. The percentage of male respondents was primarily influenced by reattempting the course for the second time. As a suggestion, the male students have the most difficulty in learning online via ODL platform. The male students might struggle to follow the online mentoring because of the various issues such as inconducive workstations at home, low internet coverage, limited numbers of devices for online classes, and cost of internet data. The previous study has proved that seven challenges might limit student's intention to use online learning during pandemic Covid-19 such as communication issues, technical issues, issues on internet connection and insufficient data capacity, lack of student's motivation, preferences, intention, student's level of understanding about the online learning and assessment (Ilias, Baidi, K Ghani, & Mohd Razali, 2020).



**Figure 2** Student results comparison between before and after the mentoring program

### Conclusion

The study concluded that the mentoring program positively impacts the respondents and supports the higher learning institutions' strategies and goals. The mentor plays their role very well with persistently persuading the students to ask questions if they are confused or do not understand the related courses. Mentors' capability to assist students with the steps required to answer the final exam questions is essential in achieving students' positive outcomes. This study further suggests that the mentors practicing effective communication and providing adequate moral support during the program.

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### Conflict of interests

The authors no conflict of interest. All co-authors have seen and agree with the manuscript's contents, and there is no financial interest to report. We further confirm that this is our original work, it has not been published elsewhere, nor is it under consideration for any other publication.

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