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Student's commitments and preferences in online learning

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ABSTRACT

During the COVID-19 pandemic, the learning was conducted by online system. The objective of the research was to understand the commitments and preferences of students in online learning. A total of 516 students participated in filling out an online questionnaire. The data were analysed descriptively referring to the critical success factors (CSFs). Based on the research result, there were three most dominant obstacles, they were: i) Internet interference (42.71%); ii) Limited quota (24.49%); and iii) Other activities (22.92%). There were students who did not attend full-time (22.45%). The weak commitment was boredom (2.04%) and feeling that they understood the module (5.10%). There were students who do not study full-time, only filling out the attendance list (53.1%). A small number of students (2.04%) fill out the attendance list and upload assignments as a top priority. According to this research, 46.7% of students liked online learning and 39.7% did not like it. In addition, 42.83% of students were bored. It means that about 60% of saturation comes from like-dislike preferences. The remaining 40% are influenced by other factors. The students' commitments and preferences are influenced by many factors. Those who force themselves to learn ineffectively will be at risk of learning loss.

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1. INTRODUCTION

Since the beginning of the pandemic in 2020, Indonesian universities have implemented online learning (OL). Initially, the fast and sudden transition at the beginning of the implementation of this policy caused various responses from students and lecturers who felt they were not fully prepared for OL. The response trend that appears is the flexible implementation of learning, namely blended learning and flipped classroom [1], [2]. Now, after two years, OL tends to use a uniform format. The results of the preliminary study show that most students use one or more of three main platforms, namely e-learning, video conferencing, and social media (chat applications, such as WhatsApp and Telegram).

From the experience of the last two years, the advantages and disadvantages of OL in several countries have several similarities. They also have similar obstacles and supporting factors. In terms of time and space efficiency, OL is indeed superior [3], [4]. This advantage is also reinforced by the characteristic of students, mostly the millennial generation, who are technology literate, making it easier to adapt to participating in information technology or IT-based learning. However, in terms of effectiveness, many studies have proven that offline learning is more effective in achieving learning objectives, increasing student competence, and making learning experiences meaningful [5]–[7].

The ineffectiveness of OL is closely related to the fact that not all students have quality internet access. Some of them even live in rural areas where, even though they receive an internet quota from the

government, they cannot use it well to participate in OL. Even if it is possible, according to the research of Khan and Ahmed [8], the trend will be the same as the experience at the school level, students are very vulnerable to learning loss. The factors that contribute to learning loss are also very diverse, but the biggest contribution is the teacher-student communication in the virtual classroom which is not as interactive as offline learning, and the presence of various distractors that distract students from the OL [9].

However, to evaluate the implementation of OL at the university level, an investigation is needed to describe the student experience in more detail than the empirical description above. The investigation is not enough by referring to a discussion that focuses on the superiority-advantages and supporting-inhibiting factors as in the research of Stevanovic *et al*. [10] and Zalat *et al*. [11]. The discussion does not need to cover the policy aspect as in the research of Mishra *et al*. [12] and Joaquin *et al*. [13] but must focus on the instructional aspect. Because in the evaluation of educational programs, the measurement of the implementation of learning is limited to the achievement of learning objectives, student motivation, and, most importantly, the impression and satisfaction of students after participating in learning [14].

Goal attainment in OL has been studied in detail by previoues scholars [15]–[17]. The aspect of motivation has also been discussed in depth by the others previous scholars [18]–[20]. Student impressions and satisfaction have not been widely discussed in the literature on OL at the university level even though student satisfaction and impressions are urgent to note because they determine student commitment to continue learning independently. Satisfaction and impression reconstruct students' interests and facilitate them to find two important things, namely, the relevance of learning materials to life outside the campus and the reasons that underlie them for lifelong learning [21], [22]. This means that, currently, a better in-depth understanding of students' commitment to participating in online learning is still needed, in which the commitment is constructed by the obstacles and preferences of students during learning.

Three researchers have examined the implementation of OL from the perspective of students [23], [24]. Almendingen *et al*. [23] indeed revealed a feeling of loneliness in students when OL, but, because of the high adaptability of the research subjects, this problem could be overcome in two weeks. Therefore, their research cannot explain how students' preferences are if it turns out that the obstacles faced are very diverse and sustainable, as happened in Indonesia. In contrast to Almendingen *et al*. [23], research by Lobos *et al*. [24] found high student expectations and positive learning experiences because, in the OL scenario, there were no significant obstacles. They eventually could not explain the general problems and preferences of students during OL. The two studies above cannot answer the question of how students are committed during online learning and whether they are serious about studying. The only research with the discussion close to the topic of student commitment and preferences was carried out by Coman *et al*. [5]. They tried to explore students' perceptions of OL, their capacity to assimilate information, and the use of e-learning platforms. Their findings indicate that students' perceptions tend to be negative, and their capacity to assimilate learning is also low. The situation is due to the technically low ability of the lecturers and the teaching model that is not adapted to the virtual environment.

As none of the above studies explain how common obstacles and student preferences are, this research contributes to previous research and OL discourse at the university level by revealing students' commitment/seriousness and preferences during online learning. This research was finally carried out to answer the main problem: how is the implementation of online learning in Indonesian universities? The problem formulation is broken down into the following two specific research questions: i) What are the common obstacles faced by students?; and ii) How are their commitments and preferences during online learning? The findings of this research become a valuable contribution because it provides a new understanding of the implementation of OL in universities based on the empirical experience of students. Moreover, there are signs that OL is no longer an emergency learning scheme but a new trend of learning formats in the future [25], [26].

2. RESEARCH METHOD

This research was conducted using a quantitative approach with survey design. In this educational research, the survey design was chosen because it is a quantitative procedure that seeks to collect and describe specific trends and tendencies in the subject thinking [27]. Data were collected using 19 semi-closed questions administered online (n=516, randomly selected). The sample was students in semesters 2 to 10 from nine universities in Indonesia (consisting of 158 males and 358 females).

The questionnaire was developed by referring to the criteria for implementing OL from the perspective of students which was compiled by Naveed *et al*. [28], covering four main indicators, namely attitudes towards e-learning, student motivation, general internet self-efficacy, and commitment to OL. The questionnaire was then validated with Aiken's validity index [29], while the reliability was tested using Cronbach Alpha (0.795>0.05). The collected data were analyzed with descriptive statistics to describe the students' commitments and preferences in complying with the OL policy. To obtain a complete, detailed, and in-depth

picture, the discussion was carried out thematically in the elaboration in the following section by referring to the critical success factors (CSFs) presented by Ozkan and Koseler [30] and Mosakhani and Jamporazmey [31].

3. RESULTS AND DISCUSSION

According to 80.23% of participants, all the courses they take are online. The remaining 19.77% admit that several courses are taught offline or blended. With such rules, initially, only 50.97% of students were ready for the OL system. However, in just one semester, the percentage of readiness increased by 11.82%. However, it turns out that the increase in readiness does not occur in students at all universities. Based on this survey found that there are three characteristics of the universities in the OL. Firstly, at several universities, there are no improvement yet in readiness to conduct the OL at all. Secondly, the situation of universities is better at some universities, where some students who were initially unprepared have become more unprepared. Thirdly, the increase in readiness was experienced by students at some universities, who had ready digital literacy in the OL system.

There are at least five factors that determine student readiness in OL, namely: i) Technology readiness; ii) Self-directed learning; iii) Learner control; iv) Learning motivation; and v) Online communication self-efficacy [32]. However, which determinant has the biggest contribution depends on the students and lecturers involved. In Indonesia, in the research of [33] that took samples at Universitas Tidar, learning motivation has the largest contribution. In contrast to their findings, this survey concludes that online communication self-efficacy (specifically digital literacy) is the biggest contributor, to both online communication self-efficacy of lecturers and students. This means that, as found by Scherer *et al*. [34], student readiness is not always influenced by their latent characteristics. It could be that their readiness is low due to the lecturers' low digital literacy, affecting the choice of OL platforms which may not be following student preferences. Such a trend has been revealed by Irfan *et al*. [35] stating that lecturers are less interested in the learning management system (LMS) provided by the campus.

According to this survey, Google Classroom is the most popular e-learning platform for students, followed by four other e-learning platforms, i.e., BukaKampus, Edmodo, Schoology, and Atutor as seen in Figure 1. However, in the application of OL, most lecturers use Zoom and WhatsApp as displayed in Figure 2. In addition to showing the low digital literacy of lecturers, the above situation is a strong indication that online learning at Indonesian universities tends to strive to maintain an in-person learning climate. In lectures, there must be a presenter who presents the study, and the audience responds (comments/questions) to create an academic discussion. These goals can only be achieved by utilizing video conferencing platforms assisted by social media platforms [36], [37]. Therefore, OL at Indonesian universities commonly uses the most popular platforms among Indonesian educators, namely Zoom as a video conference platform and WhatsApp as a social media platform [38]. More than just a matter of student readiness and lecturers' digital literacy, this survey found other aspects closely related to student commitment and preferences during the OL policy. The findings are discussed thematically in the following three sub-sections.

3.1. Common obstacles

This survey categorizes obstacles to online learning into three clusters, namely technical, managerial, and competency obstacles. These obstacles in turn caused 18.99% of students not to take full-time OL. For them, the three most dominant obstacles are internet signal interference (42.71%), limited internet quota (24.49%), and interference with other activities at home (distraction) (22.92%). The rest is the weak commitment of the students (feeling they do not need to study because they have filled out the attendance list and feel bored); several lectures are held not according to schedule (4.08%). However, it does not mean that those who attend full-time lectures do not experience certain obstacles. This survey detects that the three obstacles above also occur to students who attend lectures full-time. The number is even greater as seen in Figure 3. Only 5.71% of students can study OL without any obstacles. For both students studying full-time and not, internet connection is still a major problem. When explored further, many students come from and live in geographical areas with limited internet connections. Today, this argument may seem illogical, but it is. In addition to being proven by this survey, this statement is reinforced by the findings of Yudiawan *et al*. [39] in their research in Papua and confirmed by the research of Syahruddin *et al*. [40].

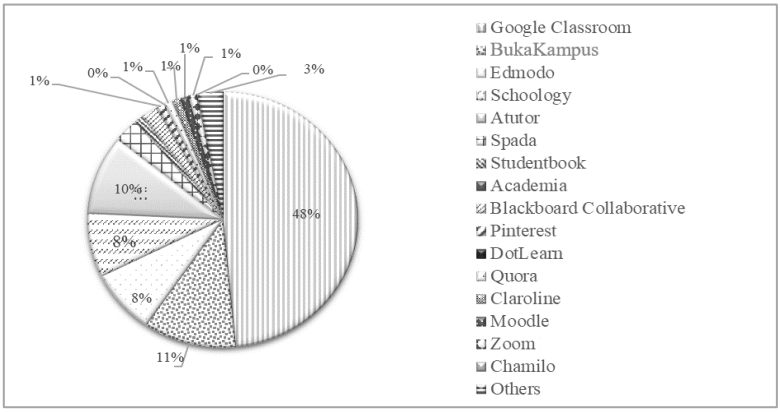

Figure 1. Popular platform for students

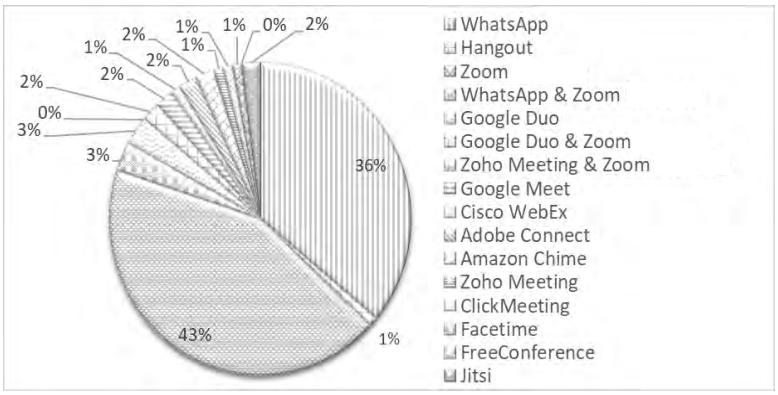

Figure 2. The application most used by lecturers

Even so, the presentation of Figure 3 shows that the obstacles to online learning do not always cover technical and managerial aspects. There were 1.43% of students said about the ineffectiveness of delivering lecture material indicates the need for evaluation from the lecturer/universities. Moreover, 4.08% could only study in the first 20 minutes because learning was not on schedule or coincided with other lecture schedules. It is not a great number but is very important to be considered as material for internal self-criticism of universities.

This research confirms the findings of Zalat *et al*. [11] that the obstacles are not solely from students and not always about internet connection. In many cases of online learning at the university level, there are problems in the form of a lack of knowledge and experience using IT devices (digital literacy), especially for lecturers. This study acknowledges indications that students' digital literacy is superior to their lecturers. However, it focuses more on how they tend to carry out their obligations to participate in lectures.

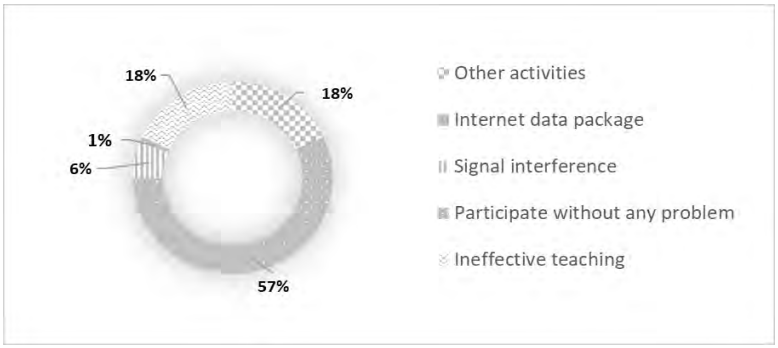

Figure 3. Problems faced by full-time students

3.2. Student commitment and preferences

Of the five determinants of student readiness [32], it is learner control that is the biggest challenge because students often cannot stop themselves from focusing on their studies. Their attention is often diverted to other online activities, especially social media [33]. The findings of this survey confirm that statement. According to this survey, students who do not study full-time are dominant due to technical and managerial problems as mentioned in the previous discussion. However, there are differences in preferences between those who are technically constrained and those who are managerially constrained. Students who are managerially constrained appear to have a better preference for participating in OL. They found an alternative by filling out the attendance list, lecturing for 20 minutes, and leaving the virtual class to attend other classes. In addition, an important finding that illustrates student commitment is 22.45% of students do not attend lectures full-time as they have other activities outside of lectures. This number is much higher than those of the other two reasons that also illustrate the weak commitment of students, namely boredom (2.04%) and feeling that they have understood the module (5.10%).

Considering these reasons, the percentage above confirms that the priority of student lectures does not lie in the learning experience. The 53.1% of students who do not study full-time consider filling out the attendance list as the most important part of a series of OL. Indeed, some students consider discussions, understanding lecturer reviews and module content, and uploading assignments as the most important part of lectures, but the ratio is not up to 12%. Even though they are aware of it, they do not follow OL full-time for the reasons mentioned earlier. A small number of students (2.04%) even consider filling out the attendance list and uploading assignments as a top priority because, in some lectures, lecturers do not provide reviews or feedback. This is exactly the case with students in the research of Warfvinge *et al*. [41] who show dissatisfaction because they do not get meaningful feedback. However, it does not mean that filling out the attendance list is only a preference for students who do not study full-time. The 51% of students who study full-time also mention filling out the attendance list as the most important part compared to discussions, uploading assignments, understanding materials/modules, and so on.

Practically, the preferences of the two groups of students were not significantly different. Both of them experience what [42] call 'negative features', a condition where students are forced to study even though they do not absorb the lecture material well. However, in detail, students who study full-time have better attention to the importance of participating in discussions, uploading assignments, and understanding lecturer reviews at the end of the OL. Interestingly, this survey found ambivalent preferences. In a questionnaire item that asks about their preferences when entering the new normal (the pandemic is continuing), it seems that 51% of students who do not study full-time still want to study OL. Only students who have a positive attitude towards OL usually consider the possibility of OL's sustainability after the pandemic [43], [44]. However, it should be noted that the statement is consequent to the answers to the following questionnaire items.

In the questionnaire item asking whether they still need technical training to make OL effective, it seems that 66.3% of students feel it is necessary. As many as 10.2% of students even stated that they needed the training. Ironically, 51% of students who do not study online full-time still want to continue the OL program. Even worse, 23.5% of them also do not need the training to make OL effective. In connection with the findings above, it is very important to look at the finding of Saha *et al*. [45] that the weakness of lecturers to provide feedback and conduct meaningful OL has a positive correlation to the interest and level of student participation in OL. Moreover, if you look back at the survey results at the beginning of the discussion of this paper, lecturers do not have a good preference for OL. The reason is the difficulty of monitoring learning activities, which also has an impact on daily assessments. Therefore, Saha *et al*. [45] recommend using OL schemes only during the pandemic and start using blended learning after the pandemic.

This recommendation is more acceptable than changing OL as an emergency learning scheme into a new normal learning scheme. The reason is simply that the characteristics of Indonesian students, according to this survey, are not yet ready to carry out OL in terms of: i) Maturity in carrying out obligations and responsibilities to participate in OL properly; ii) Internet facilities; and iii) Digital literacy. This research agrees with the statement of Dietrich *et al*. [46] that learning at universities has often approached a one-size-fits-all approach without paying attention to the heterogeneity of students' cognitive and motivational characteristics. That is why individualized learning formats such as OL are difficult (at least until the three aspects of unpreparedness above are resolved).

3.3. Risk of learning loss

The studies by Djumingin *et al*. [47] and Rahiem [48] reveal what makes OL interesting for students is its flexibility. Unfortunately, their research does not explain how effective online learning is compared to offline learning. The research could not verify whether their interest in flexibility was motivated by learning motivation or the opportunity to study while doing other online activities. This survey complements the research by suggesting that there is a risk of learning loss in OL at the university level. Learning loss is an event that

learning outcomes are not obtained after individuals take part in learning. This happens because the learning experience is not meaningful. This survey claims that OL at the university level is at risk of learning loss based on the psychological indicators of the meaningfulness of learning presented by Ausubel [49], including student aspirations, feelings of likes and dislikes in learning, and attractiveness of learning.

According to this survey, although 46.7% of students like OL, 39.7% do not like it. 9.69% dislike the OL scheme. This survey also confirms the finding of [42] about negative features that some students in higher education force them to participate in OL. The compulsion, according to Ausubel [50], has a very large contribution to boredom and intrinsic motivation. Practically, student satisfaction in OL is also very low because boredom is closely related to self-efficacy [51], and intrinsic motivation is closely related to attractiveness as the strongest predictor of satisfaction in participating in OL [52]. In addition to being proven by the comparison of the number of students who do not like OL (39.7%) with students who experience boredom (42.83%), the conclusion above is also evidenced by the correlation coefficient of 0.78 (significance level 0.05). It means that about 60% of saturation comes from like-dislike preferences. The remaining 40% is influenced by other unknown factors. However, if you look at the answers to the questionnaire items, these preferences are likely influenced by the general obstacles discussed above. It is true what is concluded by Pei and Wu [53] that there is no strong and sufficient evidence that offline learning is more effective than OL because its effectiveness depends on the meaningfulness of learning.

4. CONCLUSION

The implementation of OL in Indonesian universities is still uneven, in terms of the readiness of students and lecturers, the quality of OL, and the achievement of learning objectives. Obstacles that often arise but are rarely disclosed by other researchers are the low digital literacy of lecturers. This obstacle in turn causes OL to be ineffective because, without qualified digital literacy, lecturers find it difficult to monitor OL, conduct assessments, and carry out quality academic discussions.

This research highlights the unique commitments and preferences of students while participating in OL. According to this survey, the priority of students in following OL is not in gaining meaningful learning experiences but in filling out attendance lists and uploading assignments. This trend occurs in both full-time and part-time students. Therefore, it is very difficult to determine whether students are committed or not. At first glance, students do not seem serious about OL by admitting that they do not participate in OL full-time because they have more important activities, feel bored, and feel they have understood the material discussed in lectures. However, at the same time, they also want OL to continue even though the pandemic is over. Generally, the desire to continue OL only occurs in students who have a positive attitude towards OL, unless they feel benefited.

According to further analysis, the commitments and preferences of the students above are not only closely related to common obstacles (internet issues and distractors) but are also influenced by the competence of lecturers in conducting OL. Those who force themselves to study full-time even though the OL is ineffective are highly at risk of learning loss. This study ultimately recommends university self-criticism on the consideration of OL's unpreparedness in terms of: i) Maturity in carrying out obligations and responsibilities to participate in OL properly; ii) Internet facilities; and iii) Digital literacy and lecturer competence in conducting quality OL.

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