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Student Retention in Distance Learning During the Covid-19 Crisis in Indonesia: Are We Disappointing Them?

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Abstract
This paper aims to describe survey data on student retention in the distance learning in the form of learning comfort levels during the Covid-19 pandemic. The technique used to collect data is a survey at several universities in Indonesia on the subject of students and lecturers during the even semester of 2020. The results of the cross-section survey during distance learning show that the average level of comfort is low because one of them is in the reinforcement aspect. Tabulation analysis shows that lack of preparation results in learning to focus more on delivering teaching materials and too little to motivate them to learn. The perception of most of the community towards the meaning of distance learning makes learning reinforcement low for students. The impact is that learning only turns into e-teaching through the digital space. As an alternative to equal access to higher education throughout Indonesia, systematic efforts are needed to provide a thorough understanding to the guardians/parents of students about this distance learning design to provide a better learning environment during distance learning during the Covid-19 pandemic. Efforts are also needed in designing how to strengthen, especially in terms of motivation to increase learning retention.

Keywords: Retention, Motivation, Distance Learning, Covid-19

1. Introduction

Retention refers to retaining knowledge after students carry out the learning process. The knowledge deposited after learning and can be recalled in its use in real life is a form of actual learning evaluation(Schunk, 2012). If the ability is difficult to call, then the previous learning process is just conveying information. The problem of learning retention in distance learning has been stated several times by previous studies such as Huett et al. (2008); Simpson (2006, 2013); Twyford (2007). The study results concluded that low learning retention at the higher education level was the cause of soft reinforcement. Many variables affect how this knowledge can be deposited and translated by students (read Driver & Erickson, 1983; Lev Vygotsky & Michael Cole, 1978; Susan Carey, 1987).

However, the easier way to control learning objectives is the learning environment(Darrell L & Barry J Fraser, 1985).

Social, pedagogic, psychological, and physical contexts influence attitudes and achievement in a learning environment (Imms et al., 2016). For this review, the term learning environment, such as teacher-student relationships. The relationship between psychosocial, affective, and cognitive outcomes has been studied in modern learning environments (B. Fraser, 1998; Haertel et al., 1981; Jeffrey Dorman, 2002). Previous research supports that learning outcomes are influenced by the classroom environment (Bell et al., 2014; Dorman & Fraser, 2009; Gabel, 1994; Jeffrey Dorman, 2002). It is better if a good learning environment supports them. Specifically, the perception of the classroom environment is positively related to student learning outcomes or academic achievement (Chionh & Fraser, 2009; Cohn & Fraser, 2016; BJ Fraser et al., 1986), self-regulation (Velayutham & Aldridge, 2013); learning satisfaction (Darrell L & Barry J Fraser, 1985); and learning convenience (Bell et al., 2014; Ogbuehi & Fraser, 2007; Telli et al., 2010). However, they should not take the influence of the classroom environment on learning should not be taken lightly.

The learning environment is aligned with communication technology (Daggett, 1992). During the Covid-19 pandemic, learning was diverted by distance methods, whether online or not. However, unfortunately, this method's learning environment needs to be managed optimally. Most higher education institutions state that distance learning is carried out using e-learning or digital learning methods. However, they only do e-teaching, using the internet to deliver teaching materials through forums, videos, and blogs. The essence of learning is an activity that seeks to make students want to learn from a series of activities planned by lecturers (John Lubbock, 2010). Therefore, students must be given the desire to learn during distance learning.

Many study environment surveys are conducted to assess students' perceptions of their learning environment, so surveys can be undertaken to evaluate classroom settings based on their perceptions. (Imms et al., 2016). The use of perceptual measures to assess the actual environment and student preferences allows for in-depth exploration. Therefore, an in-depth exploration needs to be carried out to describe student retention in distance learning based on the comfort level of understanding during the Covid-19 pandemic.

This desire to learn is synonymous with motivation and essential to student retention (Anderson, 2006). The application of reason can increase the activeness of student learning behavior, which is seen from a social-cognitive perspective. The result of the latest research argues that the learning environment is one of the most critical factors in increasing motivation based on extrinsic and intrinsic (Dale H. Schunk et al., 2020). Create a self-reinforcing feeling of self-confidence and mastery to be more likely to retain the knowledge conveyed(Deci et al., 2001); the higher the motivation, the higher the student retention.

Someone who does distance learning must increase positive motivation as a condition for building knowledge. Efforts are being made to increase student motivation and retention by utilizing various motivational strategies (Table 1).

Table 1: Recommended strategies for increasing student motivation and retention

No	Step	Strategy recommendations to increase student motivation and retention in distance learning
1	Early	Assign tasks on a gradual level of difficulty from simple to complex;
		Using personal experience to arouse curiosity;
		Using strategy to stimulate thinking with imagination;
2	Development	Increase the meaning of content and tasks by relating them to everyday life;
		Using different types of activities and tasks;
		Involves being an active participant in learning;
3	Establishment	To create a democratic atmosphere that allows one to choose task formats, activities, and colleagues independently;

No	Step	Strategy recommendations to increase student motivation and retention in distance learning
		Allow teamwork in the learning process it's aimed to decrease competition in learning;
4	Continuity	To avoid social comparisons by giving praise to students and providing feedback during assessments;
		Support, reassure, and pay attention to student learning needs.

Source: Adoption and modification of Ames (1992); Dale H. Schunk et al. (2020); Deci et al. (2001)

However, some students are still motivated despite not utilizing the recommended strategies (Table 1) because they already have good learning interests or goals. However, this research shows that only some individuals have individual interests or learning objectives during high school and college. There is generally a substantial decline in motivation during middle school(Anderman & Maehr, 1994), especially in social science (Butler, 1999; Gabel, 1994). This condition also occurs because there needs to be more learning load. After a long day, they spend their energy and attention in the classroom. Furthermore, after school, they still have to do additional assignments. It caused low student retention, another task of forgetting about the essence of contextual learning.

Motivation can be pursued by designing the learning environment (Dale H. Schunk et al., 2020; Green, 2002) conducive to students. A communicative learning environment can build motivation to learn independently(Anderson, 2006). However, personal communication can usually be established directly. It cannot be done currently during distance learning and impacts decreasing motivation (Simpson, 2013).

This article describes the results of a student learning environment survey on distance learning during the Covid-19 pandemic. Although this condition is tentative, the results of this research can be used as an essential reference in describing the readiness of higher education institutions to manage the learning environment in distance learning. This learning environment is nothing new and is an opportunity to equalize access to higher education throughout Indonesia.

2. Method

The survey design in this study used a cross-sectional sample of universities in western Indonesia and parts of the central region (Nusa Tenggara) (Fig 1) as many as 1079 students. This survey aims to evaluate distance learning in higher education if it is conducted broadly. The primary measurement parameters include learning resources, learning environment, reinforcement, and learning management (Table 2).

Table 2: Parameters of distance learning environment measurement from student perception

No	Parameter	Indicator
1	Learning Resources	• Access • Forms of learning resources • The difficulty level of use
2	Learning Environment	• Study environment design • The suitability of the environment with the character of the students
3	Strengthening	• Physical device • Institutional support • Learning reinforcement • Application of attitudes and skills • Involvement of guardians/parents
4	Learning Management	• Learning flexibility • Assignment • Group work design • Collecting work results and providing feedback

Source: Adoption and modification of B. Fraser (1998) and Imms et al. (2016)

Descriptive analysis was used to create patterns and categories of answers. Further data mining was conducted by online interviews with subjects willing to be contacted. Then the study of the relationship between elements is used to explain data patterns that have appeared previously (Neuman, 2013).

Figure 1: Survey sample area during distance learning in Indonesia

3. Results and Discussion

The first aspect of measuring the comfort of the learning environment in distance learning is how students access the teaching materials. Technically, students were able to obtain lecture teaching material easily. This convenience is because students are used to getting various learning resources, although some still rely on lecturers as their primary source (Alshahrani et al., 2017).

In the distance learning process during the Covid-19 pandemic, only a small number of students can take advantage of the flexibility of the digital learning environment to collaborate (Table 3). Identification of the tabulation results, there are several dominant factors from students and lecturers that become obstacles in the expansion of this learning environment, including:

1. Students are constrained by direct network access from home; they have to go to public facilities less supportive of focusing/concentrating on learning during online classes.
2. Lecture design with the concept of a webinar that utilizes colleagues requires special technical skills to manage the learning environment.

The second aspect of evaluating the learning environment is how teaching materials are carried out during distance learning. The tendency of the a-synchronic pattern by providing teaching materials as an independent study guide followed by structured assignments becomes a quick choice to complete material delivery. These field findings legitimize that the implementation of distance learning is limited to e-teaching; knowledge is only transferred from the classroom to the virtual space (Simpson, 2013).

The A-synchronic design could be more robust in the learning process if it is supported by good personal communication. In this design, the implementation of peer learning that can be done in class needs to be improved. Students cannot have collegial discussions with colleagues to build perceptions of information based on more familiar language (Schunk, 2012). The implementation of learning is also somewhat flexible; when the schedule is complete, the communication ends until the next meeting. The interaction factor between students and lecturers also limits their flexibility for further contact if they have learning difficulties.

Table 3: The pattern of delivering teaching materials during distance learning

No	Category of learning resources used	Amount (%)
1	Digital learning environment has the opportunity to invite experts in digital discussions (webinars)	5

2	the digital material provided has been upgraded from the internet/books	16
3	the material provided is redesigned as needed	15
4	the material provided is used in schools in digital form	57
5	Others	6
	Total	100

This new learning pattern is rarely conveyed to parents. Some parents assume that their children's job is to help with their parents or help with household chores when children are at home. If their children are in front of a computer or handphone to study, they will complain about their children's activities. It can be seen that the apathetic attitude of parents toward children's learning activities. So, the impact is that students will not focus when doing distance learning.

The institution assumes that students have reached the maturity stage to be placed in andragogy learning. This learning becomes students to be an independent student who has responsible and proactive character through interactions with teachers (Liz Burge, 1998) (see Figure 2). But Covid-19 caused most (73%) not ready to fully become independent students.

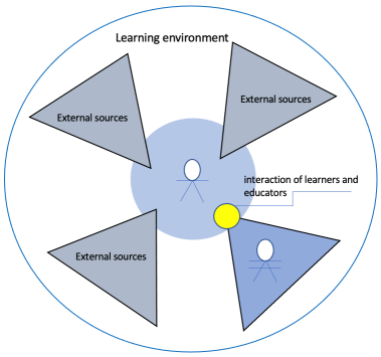

Figure 2: The Pattern of Interaction Between Students and Educators in Distance Learning in Andragogy Learning

The third aspect is how to strengthen distance learning. Educators can easily accommodate it within the network and outside the network. The lecturer factor is the main factor in the quality of learning services. Based on the interview results, we also found that the characteristics of young lecturers with children of primary education also affect the learning schedule in the distance learning process. During covid-19 pandemic, distance learning was only focused on the transfer of knowledge, while the transfer of skill and value could not be carried out optimally. In some cases, the learning process in the department of sciences, transfer skill and value need a conducive work environment such as a laboratory for practicum.

Meanwhile, related to appreciation, distance learning causes a limited appreciation of learning achievement (table 4). It can be seen from the lack of a comment column used for appreciation. Simple appreciation can increase self-confidence through their assignments (Deci et al., 2001), so their retention and motivation can increase (Bell et al., 2014; Ogbuehi & Fraser, 2007; Telli et al., 2010). However, the relationship between increased retention and learning motivation is still an assumption in distance learning (Simpson, 2013).

The final aspect evaluated from the distance learning environment is how learning is managed. At the point of assigning assignments, there are no obstacles in individual learning activities. Students can freely collect resources and arrange them according to the bill of learning activities. Obstacles arise when learning activities must be carried out in groups; students need help to determine roles in the division of group tasks. The suitability of work patterns between individuals in groups is one of the factors of this obstacle (Kirschner et al., 2008; Rosa Angela Fabio et al., 2020). They are also not used to online group work, so members appear apathetic or too domineering (Rosa Angela Fabio et al., 2020).

Table 4: Some preliminary studies of the implications of online distance learning

No	Preliminary research	Findings of strengthening activities	Impact	Note
1	Simpson (2006)	Online counseling for learning difficulties	Increase retention by 5%	Reducing lecturers' costs in online learning by 62%
2	Twyford (2007)	Motivational email	Increase retention by 11.5% and motivation to learn by 5%	-
3	Huett et al. (2008)	Motivational email	Increase motivation by 23.4%	-
4	Simpson (2013)	Online counseling and motivation in feedback	Increase retention by 18.9%	-

Based on several aspects of measuring the learning environment during distance learning, the expectations of students about online lectures tend to decrease (Figure 3). As many as 91% of students are more likely to do formal learning in class because they consider learning interaction activities irreplaceable through virtual communication media interactions. Their social bond has been built in the classroom environment, so bringing it to the virtual space takes time and habituation (Heeyoung Han, 2013).

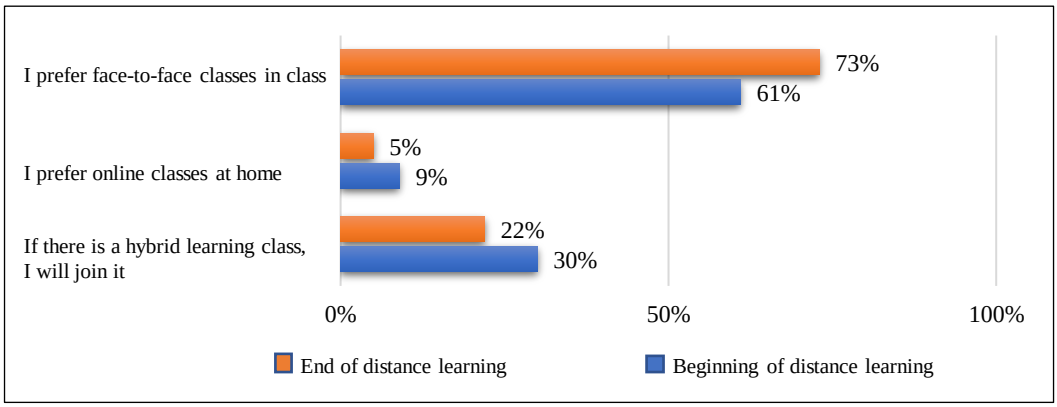

Figure 3: Student expectations in distance learning

At the end of this distance learning period, expanding the learning space on digital communication media positively impacts learning interaction patterns. Massive application of online learning platforms managed by institutions effectively contains its management, especially costs (Simpson, 2013). Previously, individual lecturers who wanted to do distance learning online had to pay a fee to pay for platform subscriptions; now, the institution has managed the process. This new pattern can provide long-term benefits in distance learning and equity in higher education in Indonesia.

4. Results and Discussion

This survey is only limited to describing how distance learning in distance learning during the Covid-19 pandemic in universities is from the student's perspective. The survey results show that the lack of preparation makes the management design only seem to transfer learning into digital form via the internet as an alternative to equal access to higher education throughout Indonesia. A systematic effort is needed to provide students with a thorough understanding of distance learning design to provide a better learning environment. Steps are also required in designing how to strengthen, especially in terms of motivation to increase learning retention. Recommendations for further research on descriptive studies between motivation, retention, and learning outcomes in distance learning in Indonesia and another region to improve good education quality.

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