The Relationship Between Learning Concentration and Understanding Level Through the Online Learning Process

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Abstract

Learning using online methods is indeed beneficial in several ways, but in nursing study programs, online learning faces several problems. Problems such as lack of focus and concentration become obstacles in how students understand course material, especially for topics related to skills. This study contributes to knowing the relationship between learning concentration and understanding level through an online learning process. This research is a type of quantitative research with a cross-sectional research design consisting of 130 respondents and using a total sampling technique, the instrument used is a questionnaire. The analysis used was the chi-square test. Data is collected online using the Google form. Univariate analysis shows that in the majority of students, when participating in online learning, the level of concentration of their learning is in the middle category (70%). For most students, when participating in online learning, their understanding level is in the low category (60.8%). The results of the bivariate analysis with the chi-square test showed that there was a relationship between learning concentration and the level of understanding through the online learning process with a p-value = 0.000. There is a relationship between learning concentration and the level of understanding when participating in online learning.

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1. Introduction

In Indonesia, online or distance learning is regulated through the Circular Letter of the Ministry of Education and Culture of the Higher Education No. 1 of 2020 concerning the Implementation of Education in the Emergency Period of Coronavirus Disease (Covid-19). Through the Ministry of Education and Culture, the government has prohibited tertiary institutions from carrying out face-to-face (conventional) lectures and ordered them to hold online lectures or learning. To fight Covid-19, the government needs strategies for remote learning and information (Carter Jr et al. 2020).

The role of adaptability and the significant challenges experienced by students who are experiencing changes in their learning and living conditions due to the need to adapt quickly to the changes and uncertainties brought about by the COVID-19 pandemic need attention (Besser, A. et al., 2022). The main issues affecting online learning during COVID-19 relate to technical, academic, and communication challenges. The study results show

that most students are dissatisfied with continuing online learning because they cannot meet the expected progress in learning performance (Mahyoob, M. 2020). Some of the weaknesses of the online learning method are the lack of personal contact with the instructor and dishonest behavior is unavoidable (Dhawan, S. 2020).

Based on the results of a preliminary study conducted by researchers on five students who took online lectures, the five students said it was rather difficult to attend online lectures, and sometimes they also found it difficult to understand the material, and their concentration was disturbed if the internet signal was bad. For this reason, this research has contributed to proving whether concentration during online learning has a relationship with the level of student understanding in learning.

2. Method

This research is a type of quantitative research with a cross-sectional research design. The sampling technique uses a total sampling technique, using an instrument in the form of a questionnaire related to

learning concentration and level of understanding. The sample for this research is 130 samples. This study uses a data analysis chi-square test. Data is collected online using the Google form. The sample criteria are students aged 19 to 22 years, active college status, and have attended online learning for at least six months. This research has been reviewed by the Ethics Committee under number 102/PPPM-EC/XI/2021.

3. Results and Discussion
a. Characteristics of Respondents
   Table 1 shows that the majority of respondents are female (77.7%), with the age of the majority of respondents being late adolescents aged 19-22 years (98.5%). The characteristics of the respondents are listed in Table 1. Table 1 shows that the majority of respondents were female, 101 (77.7%) and male, 29 (22.3) respondents. The age of the majority of respondents was late adolescents aged 19-22 years (98.5%) and early adults as many as 2 (1.5%) of respondents.

Table 1. Frequency Distribution and Percentage of Characteristics Participants, Yogyakarta in July 2021 (n=130)

Characteristics of Respondents	Frequency	Percentage
Gender:	29	22.3
Male	101	77.7
Female		
Total	130	100.0
Age		
Late Adolescent	128	98.5
Early Adult	2	1.5
Total	130	100.0

b. Learning Concentration
   Based on Table 2, it is known that 91 students (70.0%) have sufficient concentration levels when participating in online learning, 12 students (9.2%) have good concentration levels when participating in online learning, 27 students (20.8%) have poor concentration levels when taking online learning.

Table 2. Frequency Distribution and Percentage of Study Concentration of Participants, Yogyakarta in July 2021 (n=130)

Learning Concentration	Frequency	Percentage
High Learning Concentration	12	9.2
Middle Learning Concentration	91	70.0
Low Learning Concentration	27	20.8
Total	130	100.0

c. Understanding Level
   Table 3 shows that 79 students (60.8%) have a low level of understanding, 38 students (29.2%) have a middle level, and 13 students (10.0%) have a high level of understanding when participating in online learning.

Table 3. Frequency Distribution and Percentage Level of Understanding of Participants, Yogyakarta, in July 2021 (n=130)

Understanding Level	Frequency	Percentage
High	13	10.0
Middle	38	29.2
Low	79	60.8
Total	130	100.0

d. Relationship between Learning Concentration and Understanding Level
   Relationship between learning concentration and level of understanding, an analysis was performed using the Chi-square test. The results of the analysis of the relationship between Learning Concentration and Understanding Level can be seen in Table 4.

Table 4. Relationship of Learning Concentration with the Level of Understanding in July 2021 (n=130)

| Level of Learning Concentration | Level of Learning Understanding | | | | | | Total | | P-value |
| | High | | Middle | | Low | | | | |
	f	%	f	%	f	%	f	%	
High	7	1.2	3	3.5	2	7.3	12	12.0	
Middle	6	9.1	31	26.6	54	55.3	91	91.0	
Low	0	2.7	4	7.9	23	16.4	27	27.0	
Total	13	13.0	38	38.0	79	79.0	130	130.0	0.000

Based on Table 4, it is known that of the 12 students whose level of concentration was good while studying, there were seven students with a good percentage (1.2%) who had a good level of understanding, there were three students with a good percentage (3.5%) who had a sufficient level of understanding, and there were two students with a percentage (7.3%) whose level of understanding is lacking. Of the 91 students whose level of concentration was sufficient while studying, there were six students with a good percentage (9.1%) who had a good level of understanding, there were 31 students with a sufficient level of understanding (26.6%), and there were 54 students with a good percentage (26.6%). 55.3%) whose level of understanding is lacking. Of the 27 students whose

90

level of learning concentration was lacking while studying, there were no students who had a good level of understanding with a percentage (2.7%), there were four students with a percentage (7.9%) who had a sufficient level of understanding, there were 23 students with a percentage (16 .4%) whose level of understanding is lacking. There is a relationship between learning concentration and understanding level due to the p-value being 0.000.

The power of online learning mode can save us from these difficult times. Online learning is student-centered and offers a lot of flexibility in terms of time and location. The e-learning method allows the university to adapt its procedures and processes based on the needs of students. There are many online tools available that are essential for an effective and efficient learning environment. Educators can use a combination of audio, video, and text to reach students in this time of crisis to maintain a human touch to their lectures (Dhawan, S. 2020).

Online learning is learning that characterizes the roles of teachers and students carried out online. Listening and reading skills are very important for students (Hodges, C.B. et al. 2020). Concentration is assessed by observing the material when learning takes place through concentration, such as reading, studying, and thinking, and occurs through prolonged concentration. Concentration is necessary for students to study subjects and listen to classes (Pearl, J. B., & Arunfred, N. 2019). Based on the results of the study, it can be seen from 130 students, 91 students with (70.0%) of them said their level of concentration was sufficient when participating in online learning. This research is not much different from research that has been researched by (Anggraini, S., & Dewi, S. K., 2022), which states that low learning concentration is also found during online learning. (Krisnana, I. 2021) also explained that there were still adolescents who had very poor levels of learning concentration (4.1%).

Concentration is one of the most influential determining factors in the quality of student learning. The higher the number of students, the less concentration they get. The low level of concentration ability causes many lecturers to find it difficult to maintain student enthusiasm. Besides that, it is also difficult for students to achieve the best results when they graduate from university (Le, H. V. 2021). Therefore, five high-impact principles for online education are needed from (Bao, W. 2020).: (a) high relevance between online instructional design and student learning, (b) effective delivery of online instructional information, (c) adequate support provided by teachers and teaching assistants to students; (d) high-quality participation to increase the breadth and depth of student learning, and (e) contingency plans for dealing with unforeseen incidents from online education platforms.

The level of understanding is very important for understanding the material taught during learning, but the level of understanding of students has different levels (Mariano-Dolesh, M. L et al, 2022). The results of this study indicate that the level of understanding of students while attending lectures through online learning is still in the low-level category (60.8%). Some of the causes of low levels of understanding can be caused by student perceptions. If students have perceptions about the ease of use of learning media, it will affect perceptions of the usefulness or benefits of online media, and perceptions of the usefulness of online media can influence attitudes, but unfortunately, perceptions of ease of use of online learning do not directly affect attitudes towards understanding in learning (Kim, E. J., et al. 2021). Other research also states that various loads in learning media design factors, especially from the field of digital and online learning, make low levels of understanding (Skulmowski, A., & Xu, K. M. 2022).

In this study, there is a significant relationship between the level of concentration and the level of learning understanding in students when participating in online learning, with a P-value of 0.00. From the research results, it can be seen that a high level of concentration is associated with a high level of understanding when students take part in online learning. Learning concentration affects the level of understanding and also has a direct effect on learning achievement by 19.5% (Erwiza, E. et al. 2019).

Several things also cause that there is a relationship between learning concentration and the level of understanding of students in learning. There is the context of learning design, course delivery, course delivery environment, and delivery preferences. The remarkable effect on total student satisfaction in online learning programs suggests that contextual online teaching based on the composition of multi-generational student groups can be one of the strategies to enhance student learning experience and satisfaction (Yawson, D. E., & Yamoah, F. A. 2020).

Lecturers, as well as colleges, need to be aware of and implement best practices in online learning and distance education e-learning environments to ensure positive student outcomes, student retention, and student engagement to meet the flexibility needs of students in higher education settings (Davis, C. et al. 2019). The roles and responsibilities of online instructors and online learners, as well as some larger assumptions about what role feedback should play in online teaching and learning, will make the concentration level of student understanding better (Jensen, L. X., et al. 2021). The significant relationship between concentration and students' level of understanding when learning through the online method is inseparable from the advantages,

including learning that can be done remotely, convenience, and accessibility, but limitations involving inefficiency and difficulties in maintaining academic integrity.

Needs recommendations to train faculty to use online modalities and develop lesson plans by reducing cognitive load and increasing interactivity (Mukhtar, K.,2020). Effective online teaching is the result of careful instructional development and good planning (Hodges, C. B. et al. 2020). Online learning that involves technology, if used effectively, allows students and teachers to really engage and collaborate, so concentration increases and understanding also increase (Gonzalez, T. et al. 2020). On the other hand, online learning has a positive effect on students' motivation, anxiety, and attitudes. That is, because of online learning, student motivation increases, student anxiety decreases, and a positive attitude towards learning is formed; in addition to motivational aspects, other aspects such as hopelessness are also explained from the research of Fitriawan, A. S., et al (2023) that the prevalence of despair among nursing students when studying online is in the low category.

4. Conclusion and Suggestions

The level of concentration in learning is related to the level of understanding of students in participating in online learning. It is suggested that instructors provide learning using an attractive design so that the concentration of student learning increases so that the level of understanding in return also increases. It is recommended that lecturers do careful planning before teaching, create media and teaching materials that can increase student concentration and understanding, increase discussion and communication during online learning, and make interesting case material so that students' critical thinking increases. It is also necessary to make quizzes for each online meeting.

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