

## The Correlation between Students' Perception on Zoom during Online Learning and Their Learning Achievement

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### Abstract

This study was conducted to investigate whether there is any significant correlation between students' perception of using Zoom during online learning and their learning achievement of the fifth semester students of English Department in Mulawarman University in academic years 2021/2022. The design of this study was quantitative study using correlational method. The researcher took 50 students of fifth semester students of English Department in Mulawarman University in academic years 2021/2022 as the samples. In this study, the researcher used two data in collecting the data. The primary data of this research was questionnaires and the secondary data was students' GPA from their third to fifth semester. In analyzing the data, the assist of Statistical Package for Social Science (SPSS) was used. The results of computation showed that the  $r_{xy}$  of this study was 0.333 or +0.333 which implied there was a positive weak correlation between students' perceptions of using Zoom during online learning and their learning achievement. The results of hypothesis testing using the p-value showed that  $H_a$  was accepted and  $H_0$  was rejected due to the judgment criteria if the p-value (0.018) < 0.05,  $H_a$  is accepted and  $H_0$  is rejected. In conclusion, the results of this study showed there was a significance correlation between students' perceptions of using zoom during online learning and their learning achievement.

**Keywords:** Correlation, Students' Perception, Zoom, Learning Achievement, GPA

### 1. Introduction

After the Covid-19 spread all over the world, students have been forced to study from home and utilize advanced technologies. According to Yeung and Yau (2021), this sudden shift from face-to-face to online learning is a choice without options in order to diminish the number of infected patients from this infectious disease. Although the concept of online learning has been implemented since the 1960s, for several universities including English Department students of Mulawarman University it is new for both lecturers and students. Moreover, there is a possibility that they are not well accustomed to online learning specifically in utilizing Zoom because they used to learn face-to-face in college before and must be resolved (Dhawan, 2020; Saha, et. al., 2021). Hence, it is important to know the users' (i.e., teachers and students) perceptions of Zoom as a learning medium used for synchronous teaching and learning during the pandemic of Covid-19.

According to Robbin and Judge (2017), perception is a process by which individuals organize and interpret their sensory impressions in order to give meaning to their environment. They also conveyed that the way someone determines what to do and how to act is depending on how someone perceives the object, not reality. Students' perceptions are worth understanding to help future planning and development even students should be encouraged to think positively about the use of Zoom that could enhance their learning process. When a student has a positive perceptions towards the use of Zoom in education,

their motivation to learn will improve and it is definitely will impact their achievement (Hsu et al., 2017; Souheyla, 2021). In line, Sabri in Rahmatillah (2020) stated that students' perceptions is one of psychological factors within internal factors of students that affecting them in obtaining achievement.

The researcher found three studies that related to the current study. A recent study by Kim (2020) found that the utilization of Zoom has affected EFL students' reading achievement positively. The study also found that students showed positive perceptions towards Zoom indicated by students showing interest in learning and motivation towards learning, self-directed learning, active interaction, ease of access, and ease of information retrieval. On the contrary, Serhan (2020) found that students' perceptions of using Zoom during the pandemic COVID-19 were negative. It was indicated through the results of questionnaires found that students were not satisfied and not having fun during the teaching and learning process. The study also showed that students' confession indicated that the usage of Zoom during the pandemic had a negative impact on their learning. The last study conducted by Phattanawasin et al. (2021) was about applying online courses using several platforms such as Zoom, Google Classroom, and Quizizz. The research found that students showed positive perceptions. However, although the results of students' perspectives were good the achievement of the students was found low.

According to the three studies above the researcher concludes that students can perceive Zoom positively and received both good and bad achievement. Also, student can perceive Zoom negatively and received negative impact on their learning. Therefore, the researcher concludes that the relationship of students' perceptions of Zoom and students' achievement is debatable. The researcher sees the results of the three studies above as a gap for the current study. Hence, the researcher is interested in knowing whether there is a relationship between students' perceptions of Zoom and students' learning achievement.

In this research, the researcher is interested to know students' perceptions of Zoom because it is important to know students' perceptions in online classes that is considered as new in a new normal era due to pandemic of Covid-19 in order to rectify the sessions organized thereafter (Roy et al., 2021). The researcher also interested to know how the achievement of English Department students at Mulawarman University during online learning due to the pandemic of Covid-19. The achievement that is meant here is the grade point average (GPA) of the third semester to fifth semester students at Mulawarman University majoring in English Department. Lastly, the researcher also interested to know if there is correlation between students' perception of Zoom and their achievement during pandemic of Covid-19. Therefore, the researcher decides to conduct a study entitle the correlation between students' perceptions on using Zoom during online learning and students' achievement.

## 2. Literature Review

Perception is significant because the decision that someone makes to do something is depending on how a man perceives something, it is not depending on the facts (Robbin and Judge, 2017). Therefore, although facing the same exact object, someone can treat and perceive something differently to one another.

In education, studies regarding students' perceptions towards Zoom as a medium to hold synchronous learning during the pandemic of Covid-19 is not a novelty. This is because students' perception is important for the sake of education to be better in current circumstances (Roy et al., 2020).

Sabri in Rahmatillah (2020) and Sarmita (2018) conveyed that students' perception is an internal factor that is included in psychological factors that could affect students' learning achievement. Therefore, there is a correlation between students' perception on Zoom and

students' learning achievement. In conclusion, the more positive students' perception the higher grades the students will achieve and it can go otherwise.

Studies conducted by Huda et al (2020) and Kurniasari (2021) supported these theories by revealing their research's results. They found that there was a correlation between students' perceptions on online learning during the pandemic of Covid-19 and their achievement.

Paragraphs below will convey some studies related to the current research that used as a consideration and foundation to support this research.

The first research is Students' Perspectives and Achievements toward Online Teaching of Medicinal Chemistry Courses at Pharmacy School in Thailand During the Covid-19 Pandemic conducted by Phattanawasin, et al (2021). The online course was using several platforms such as Zoom, Google Classroom, and Quizizz. Close-ended questionnaires were administered to 154 students of Pharmacy School who took Medicinal Chemistry course II (MC II) in their fourth year in 2020. The research found that students showed positive perceptions that are shown through the mean score which is 4 that indicated students' satisfaction through the online course as well on-site class. However, though the results of students' perspectives were good the achievement of the students was found experiencing diminishing which was shown with students only earning a higher proportion of B+'s to F's, and the highest proportion of C grades 31% (48/154) whereas the on-site class before got A grades as the highest proportion.

The second study is Student's Perceptions of Using Zoom Application on Mobile Phone in Improving Speaking Skills During Online Learning at Ban Loeiwangsai School, Loei Province, Thailand was conducted by Bawanti and Arifani (2021). The study aimed to know the impact of using the Zoom application on mobile phones by examining students' perceptions of speaking skills and their attitudes during online learning. The research was using the survey method. The instrument of this study was questionnaires. The sample of this research was 21 elementary students at Ban Loeiwangsai School that took from three categories, 4th grade: 12 students, 5th grade: 9 students, and 6th grade: 8 students. The results showed that students' attitudes and perceptions on using zoom in improving speaking skills were good. The researchers also found that Zoom has a positive effect which has an impact on independent learning and makes students feel more confident and able to manage their time this is shown in the use of the Zoom application also has a great influence on student action. The study also found out that 93.1% of students admitted that learning through zoom had improved their speaking skills.

The third comes from Hye Jeong Kim that conducted research entitled The Efficacy of Zoom Technology as an Educational Tool for English Reading Comprehension Achievement in EFL Classroom in 2020. This study was to investigate the effect of real-time remote video instruction using Zoom on learners' English reading achievement. The study also sought to identify the efficiency of zoom video lectures and consider supplementing them by surveying learners' opinions and satisfaction regarding Zoom video lectures. This was an experimental study, so the researcher chose 50 students majoring in the faculty of law and department of international trade as the control group and 50 students majoring in law and economics as the experimental group. The instrument used in this research was questionnaires and two achievement tests. The results showed that the utilization of Zoom has affected EFL students' reading achievement positively. The study also found that students showed positive perceptions that indicated students showed interest in learning and motivation towards learning, self-directed learning, active interaction, ease of access, and ease of information retrieval

The last study conducted by Suadi in 2020, entitled Students' Perceptions of the Use of Zoom and WhatsApp in ELT Amidst Covid19 Pandemic. The study focused on describing the EFL university students' perceptions of the use of Zoom and WhatsApp in ELT. A

mixed-method approach by combining quantitative and qualitative methods was used. The instrument used in this study was closed-ended and open-ended questionnaires, and interviews. The study involved 53 first-semester students of STAIN. 29 students are from the Department of Sharia Business Management and the rest 24 learners are from the Department of Sharia Banking. The results showed that the majority of students agreed that the use of Zoom and WhatsApp in ELT is positive and those two online platforms can help them to improve language skills and to reduce shyness in virtual class interaction.

The only similarity found between previous studies and this study is using the same instrument namely questionnaires and the study conducted by Bawanti and Arifani (2021) that also sought students' attitude towards the use of Zoom. The researcher listed several differences between the previous studies and this study. The previous studies and the current studies have different designs in conducting the research due to the aim of the study. This study used a quantitative method using a correlational approach while the previous studies mostly used a survey approach and there was one study that used a mixed-method. The sample of the research is also different, this study focuses on students who took the English education major in college whereas, in the previous study, the sample comes from various majors and levels of education

### 3. Methods

The main purpose of this study was to know if there was correlation between students perceptions on using Zoom during online learning and their learning achievement, therefore, the this research using correlational design. According to Creswell (2018), a correlational research is a non-experimental form that investigates the relationship between two or more variables or sets of scores using correlational statistics.

The sample of this study was 50 English Department students of Mulawarman University class of 2019 who were willing to take part in this research chosen using simple random sampling. There were 15 of the population which were not included as sample in this research took to do try-out.

Questionnaires from Derar Serhan (2020) and supporting questionnaires by Abriati (2021) were adapted as the primary instrument in this research. The instrument meant to find students' perceptions that divided into two main topic: attitude and experiences. The experience topic was measures from the students' perceptions of the impact of Zoom during online learning, students' engagement on using Zoom, and students' comparison between face-to-face and Zoom session. In collecting the data, the questionnaires that had tested valid and reliable were administered to the samples through Google Form simultaneously with their GPA from their third to fifth semester. The data then analyzed using SPSS.

The interpretation of students' perception were formed following the formula by Cohen, Manion, and Morrison (2018).

**Tabel 1.** Interpretation of students' perceptions

Range of percentage	Perception interpretation
20% - 36%	Very Negative
37% - 52%	Negative
53% - 69%	Moderate
70% - 85%	Positive
86% - 100%	Very Positive

The interpretation of students GPA were following the academic rules of Mulawarman Univesity (2018).

**Tabel 2.** Interpretation of students' GPA

Students range of score	Perception interpretation
> 3.50	Excellent
3.00 - 3.50	Very Good
2.76 - 3.00	Good
2.00 - 2.75	Satisfactory

In interpreting the results of coefficient correlation, the interpretation of coefficient correlation by Schober (2018) was used in this research.

**Tabel 3.** Interpretation of correlation coefficient

Students range of score	Perception interpretation
0.00 - 0.20	Very weak
0.10 - 0.39	Weak correlation
0.40 - 0.69	Moderate correlation
0.70 - 0.89	Strong correlation
0.90 - 1.00	Very strong

#### 4. Results and Discussion

##### A. Students' Perception on Zoom during Online Learning

The computation results of students' perceptions on Zoom can be seen from the table below:

**Table 1.** Students Perceptions on using Zoom

<i>Perceptiom</i>		<i>Frequency</i>	<i>Percentage (%)</i>
<i>Interval</i>	<i>Category</i>		
100 - 120	Very Positive	1	2
81 - 99	Positive	34	68
62 - 80	Moderate	15	30
43 - 61	Negative	0	0
24 - 42	Very Negative	0	0
Total		50	100.00%
Maximum Score			67
Minimum Score			101
Average			83.30
Standard Deviation			7.846
Variance			61.561

The table showed there were 70% pr 35 students had positive perceptions with 2% (1 student) had very positive perception and 68% (34 students) had positive perception toward the use of Zoom during online learning. There were 30% (15 students) had moderate perceptions and none had negative perceptions.

**1). The results of students' attitude and students' experiences of using Zoom during online learning**

There were two main topics measured in this research, students attitude and students experiences. The table below showed the computation results of the two main topics.

**Table 2.** The results of students attitude and students experiences in using Zoom

No.	Sub-scales	Percentage (%)	Category
1.	Students' Attitude toward The Use of Zoom	<b>73.4</b>	<b>Positive</b>
2.	Students' Experience toward The Use of Zoom	<b>68.08</b>	<b>Moderate</b>
	a. The impact of Zoom during online learning	<b>74.17</b>	<b>Positive</b>
	b. Students' engagement in using Zoom during online learning	<b>70.46</b>	<b>Positive</b>
	c. Students comparison between face-to-face and Zoom session	<b>56.70</b>	<b>Moderate</b>
	Average	<b>70.74</b>	<b>Positive</b>

According to the table above, it can be concluded that students had positive perceptions indicated their attitude and experiences. The results of computation showed students had positive attitude and moderate experiences.

**B. Students' Learning Achievement in the form of GPA**

The results of descriptive data of students' GPA can be seen on the table below:

<i>Achievement</i>		<i>Frequency</i>	<i>Percentage (%)</i>
<i>Interval</i>	<i>Category</i>		
> 3.50	Excellent	38	76%
3.01 - 3.50	Very Good	12	24%
2.76 - 3.00	Good	0	0%
2.00 - 2.75	Satisfactory	0	0%
Total		50	100.00%
Maximum Score		3.89	
Minimum Score		3.17	
Average		3.60	
Standard Deviation		0.158	
Variance		0.025	

The students' GPA class of 2019 at English Department of Mulawarman University from their third semester to fifth semester was displayed above. There were 76% of the students with excellent criteria which means there were 38 students achieved GPA > 3.50.

Moreover, there were 24% students with very good criteria which means there were 12 students with GPA in range of 3.01 - 3.50.

### C. The Correlation between Students' Perception on using Zoom during Online Learning and their Learning Achievement

The correlation between students' perceptions on using Zoom during online learning and their learning achievement in the form of GPA were calculated using Pearson Product Moment on SPSS.

		Correlations	
		X	Y
X	Pearson Correlation	1	.333*
	Sig. (2-tailed)		.018
	N	50	50
Y	Pearson Correlation	.333*	1
	Sig. (2-tailed)	.018	
	N	50	50

\*. Correlation is significant at the 0.05 level (2-tailed).

The result showed that there were positive weak correlation between students' perceptions on using Zoom during online learning and their learning in form of GPA. The positive correlation were found from the results of coefficient correlation that showed +0.333. It meant if students perceptions found positive thus students achievement would be found positive as well. According to Schober (2018), the value of coefficient correlation 0.333, it was categorized as a weak correlation.

In deciding which hypothesis was accepted and or rejected in this research, hypothesis testing using p-value was done. The results showed the hypothesis alternative was accepted because if the p-value < 0.05 then the hypothesis alternative was accepted and hypothesis null was rejected.

Therefore, according to the results above, it can be concluded that there was a significant correlation between students' perceptions on using Zoom during online learning and their learning in the form of GPA. The results found both variables had weak correlation. LaMorte (2021) explained a positive weak correlation and statistically significant was possible to happen. Meaning that, students' perceptions of using Zoom during online learning and students' learning achievement in the form of GPA were indeed correlated although the substance was found weak. The cause of it might be because of the other important determinants that should be measured as well. The current research results were in accordance with a study conducted by Kurniasari (2021) that also found students positive attitude were significantly correlated with their learning achievement. However, the substance of the correlation was found weak.

According to Sabri (in Rahmatillah, 2021) students perception was one of the internal factors precisely, psychological factor that affect students' achievement. However, perception was not the only factor. Therefore, the other factors were possible to be the other important determinants that could be considered to get a better results.

## 5. Conclusion

There were three main research results. The first was the results of students' perceptions on using Zoom during online learning in pandemic of Covid-19 circumstances. The results showed the majority of students class of 2019 at English Department of Mulawarman University had positive perceptions toward the use of Zoom during online learning due to Covid-19. There were 70% in total of students that have positive perceptions toward the use of Zoom during online learning. 2% had very positive perceptions and 68% had positive perceptions and the rest 30% had moderate perceptions toward the use of Zoom.

The second was the results of students' achievement which referred to students' GPA. The results showed the majority of students class of 2019 at English Department of Mulawarman University had excellent achievement. There were 76% students had excellent achievement and the rest 24% had very good achievement.

The main purpose of this study conducted was to find out the correlation between students' perceptions on using Zoom during online learning (X) and their learning achievement (Y) which was the third results of this research. The present study computation showed that the value of correlation coefficient ( $r_{xy}$ ) was 0.333 which meant there was a correlation between X and Y. According to Schober (2018), 0.333 implied as there was a weak correlation. The results of  $r_{xy}$  0.333 or + 0.333 also implied there were a positive correlation between X and Y.

To test the hypothesis, the researcher used the value of p-value with judgement criteria if the  $p\text{-value} \geq 0.05$   $H_0$  is rejected and  $H_0$  is accepted but if the  $p\text{-value} < 0.05$ ,  $H_0$  is accepted and  $H_0$  is rejected. The results showed that the p-value was  $0.333 > 0.05$ , which meant  $H_0$  is accepted and  $H_0$  is rejected.. Therefore, the results of this study concluded that there were a significant correlation between students' perception of using Zoom during online learning and their learning achievement. The direction of the correlation between the X and Y were positive and interpreted the substance of the correlation as a weak correlation.

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