

Comparison of the Effectiveness of Zoom Meeting and Google Meet Applications in Improving Students' Presentation Skills

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Abstract. This study aims to compare the effectiveness of two video conferencing platforms, Zoom Meeting and Google Meet, in improving students' presentation skills. The research method used is quantitative with a quasi-experimental approach. The research subjects are students divided into two groups, each using Zoom Meeting and Google Meet as online presentation media. The instruments used include a presentation skills questionnaire that has been validated and reliability-tested, as well as an observation sheet for presentation performance. Data analysis was conducted using an independent t-test to determine significant differences between the two groups. The results showed a significant difference between the use of Zoom Meeting and Google Meet in improving students' presentation skills ($p < 0.05$), with the Zoom Meeting group showing higher average results. These findings indicate that selecting the appropriate video conferencing platform can contribute to the development of students' communication skills in the digital learning era.

Keywords: Zoom Meetings, Google Meet, Presentation Skills.

Introduction

The world of education, especially distance learning, has undergone major changes due to the rapid growth of information technology. After the COVID-19 pandemic hit the world in early 2020, many people began using online learning technologies, such as video conferencing platforms like Zoom and Google Meet. These two platforms have become important tools to help students learn, especially in presentations that require good digital media and communication skills. According to Sugiyono (2020), online learning requires adaptation in learning strategies, including the use of appropriate technology media to achieve learning effectiveness. One form of learning that is often done in lectures is presentations, both individual and group. Presentations play an important role in training communication skills, critical thinking, and mastery of material for students. According to Suyanto (2020), presentation skills are part of the communication competencies that students need in the digital age, especially in effectively conveying ideas in virtual spaces. According to Arsyad (2020), learning media must be able to support the achievement of learning objectives, both in terms of appearance, interactivity, and user comfort. Therefore, it is important to know which platform is more effective in the context of improving students' presentation skills. In this regard, Zoom Meeting and Google Meet are two important platforms widely used by educational institutions. Both offer features that support presentation activities, such as screen sharing and breakout rooms, as well as interactive features like chat and polling. However, differing features, connection quality, interface design, and ease of use often influence user experience, including that of students. Known for its comprehensive features, Zoom Meeting offers features such as breakout rooms, raise hand, reply, screen sharing, and the ability to record sessions. These features are considered to support a more interactive presentation process. However, using Zoom requires a sufficiently fast internet connection and larger bandwidth. Meanwhile, Google Meet is part of the Google Workspace ecosystem, making it easier to integrate with Google Docs, Google Slides, and Google

Calendar. Its simple interface and lower data usage make it less attractive than Zoom, but it has some limited interactive features. According to Mulyani (2020), the effectiveness of learning media is not only measured by the sophistication of the technology used but also by how well the media can enhance active participation and the achievement of students' competencies. Therefore, research is needed to examine the comparison of the effectiveness of the two platforms, particularly in the context of improving students' presentation skills. Additionally, Yuliana (2020) states that online platforms supporting real-time two-way interaction can provide a better learning experience, especially in activities such as discussions and presentations. This highlights the importance of selecting the appropriate platform to support the success of online learning processes.

Thus, quantitative research with the title "Comparison of the Effectiveness of Zoom Meeting and Google Meet Applications in Improving Students' Presentation Skills" has become the researcher's interest. This study focuses on how Zoom Meeting and Google Meet work well together to improve students' presentation skills. This research will use a quantitative approach to analyze data obtained through questionnaires to determine which platform is most suitable for presentation-based online learning activities. This research is expected to contribute to the world of higher education in determining the most suitable learning platform for training students' presentation skills online. In addition, the results of this study can also be a reference for lecturers in choosing the right media to support interactive learning activities.

Methods

This study uses a comparative quantitative approach, which aims to examine the differences in the effectiveness of two online learning platforms, namely Zoom Meeting and Google Meet, in improving students' presentation skills. This approach is used because the focus of the study lies in the objective measurement and comparison of student learning outcomes, with data that is numerical and can be analyzed statistically. According to Sugiyono (2020), the quantitative approach is a research method that emphasizes objective measurement of social phenomena using numerical data and statistical analysis techniques. In this case, the researcher observed the results of student presentations conducted using two different media and then compared them based on presentation skill indicators.

In this study, the population was defined as all students at public universities (PTN) and private universities (PTS) in the Jakarta area who participated in online learning and had experience giving online presentations. Sample selection in this study was conducted using purposive sampling, a technique of deliberately selecting samples based on certain considerations relevant to the objectives and focus of the study. The researcher established several specific criteria for selecting respondents to ensure that the data obtained was relevant to the context of the study. These criteria included: (1) students who actively participate in online lectures, (2) have experience in conducting academic presentations online, and (3) have used both video conferencing platforms, namely Zoom Meeting and Google Meet. Based on these criteria, 100 students were selected as the research sample, coming from various departments and universities in the Jakarta area. In this study, the instrument used was a questionnaire. The questionnaire instrument in this study was designed based on a number of presentation skill indicators that reflect important aspects of online academic communication. These indicators include mastery of the material, clarity of voice when delivering the presentation, ability to use supporting media, interaction with the audience, and confidence when performing in public. Each statement in the questionnaire was designed to measure the extent to which students demonstrated these skills during online presentations. The statements were assessed using a five-point Likert scale, with the following response options: Strongly Agree (SA), Agree (A), Neutral (N), Disagree (D), and Strongly Disagree (SD). This scale was chosen to provide a variety of responses and to measure the respondents' level of agreement with each statement in a more measurable way.

Result and Discussion

Quantitative Analysis Results

1. Descriptive Statistical Test

Table 1
Descriptive Statistical Test Results

	N	Minimum	Maximum	Mean	Std. Deviation
Zoom Meeting	100	38.00	48.00	43.1100	2.37366
Google Meet	100	29.00	47.00	42.7300	2.92276
Valid N (listwise)	100				

Sumber data: Output SPSS yang diolah, 2025

Based on the results of descriptive analysis, this study involved 100 respondents. The results of the measurement of Zoom Meeting usage showed that the scores obtained by respondents ranged from 38 to 48, with a mean of 43.11 and a standard deviation of 2.37366. This high average score indicates that, in general, respondents consider the use of Zoom Meeting to be quite effective in improving their presentation skills. Additionally, the relatively small standard deviation suggests that respondents' perceptions of Zoom's effectiveness are fairly consistent or not overly varied.

Meanwhile, for the use of Google Meet, the scores obtained by respondents ranged from 29 to 47, with an average of 42.73 and a standard deviation of 2.92276. This similarly high average suggests that Google Meet is considered effective in supporting the improvement of students' presentation skills. However, the slightly larger standard deviation compared to Zoom indicates that there is more variation in respondents' responses regarding the effectiveness of Google Meet. This suggests that while both are highly rated in terms of effectiveness, Zoom Meetings provide a more consistent perception among respondents compared to Google Meet. Descriptive statistics are statistical methods used to describe or summarize a set of data to make it easier to understand. As explained by Sugiyono, 2020, descriptive statistics are used to present research data in a concise, clear, and informative manner through tables, graphs, and statistical measures such as mean and standard deviation. This type of statistics is not used to draw conclusions or generalizations about the population, but only applies to the data being analyzed. Descriptive statistics do not test hypotheses, but only present what is happening in the data (Widodo, 2020). Descriptive statistics generally include measures of central tendency (such as mean, median, and mode) and measures of dispersion (such as standard deviation, variance, and range). Through descriptive statistics, researchers can understand the patterns, distribution, and trends of data in a sample without making inferences about the population (Kuncoro, 2020).

2. Inferential Statistical Test

a. Homogeneity Test (F Test)

Table 2
F Test Results

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	229.229	2	114.614	30.106	.000b
Residual	369.281	97	3.807		
Total	598.510	99			

Data source: Processed SPSS output, 2025

Based on the results of the ANOVA analysis in multiple regression, an F value of 30.106 was obtained with a significance value (Sig.) of 0.000. Since the significance value is less than 0.05 (Sig. < 0.05), it can be concluded that the regression model involving the variables Zoom Meeting and Google Meet simultaneously has a significant effect on students' presentation skills. Thus, both independent variables together have a meaningful

effect on the dependent variable.

b. t-test

Table 3
T-test Results

Model	Coefficients ^a		Standardized Coefficients	t	Sig.
	Unstandardized Coefficients	Std. Error			
1 (Constant)	10.571	4.202		2.516	.014
Zoom Meeting	.503	.084	.486	5.971	.000
Google Meet	.253	.069	.298	3.663	.000

Data source: Processed SPSS output, 2025

Based on the results of multiple regression analysis, the following regression equation was obtained: $Y = 10.571 + 0.503 X_1 + 0.253 X_2$. Where Y is presentation skills, X_1 is the use of Zoom Meeting, and X_2 is the use of Google Meet.

The coefficient value for Zoom Meeting (X_1) is 0.503 with a significance value of 0.000 (Sig. < 0.05), which means that Zoom Meeting has a positive and significant effect on improving students' presentation skills. This means that every 1-unit increase in the use of Zoom Meeting will increase presentation skills by 0.503 units, assuming other variables remain constant.

The coefficient value for Google Meet (X_2) is 0.253 with a significance value of 0.000 (Sig. < 0.05), which means that Google Meet also has a positive and significant effect on improving students' presentation skills.

This means that every 1-unit increase in the use of Google Meet will increase presentation skills by 0.253 units, assuming other variables remain constant.

Based on the Standard Beta (β) values, it is known that Zoom Meeting ($\beta = 0.486$) has a greater influence than Google Meet ($\beta = 0.298$) on students' presentation skills.

3. Validity and Reliability Test

Based on a total of 100 respondents, the table value of r at a significance level of 5% is 0.194. Therefore, the question item is considered valid if the calculated r value is greater than 0.194 and the significance value (sig.) is < 0.05.

Table 4
Instrument Validity Test Results

Variabel	Item Pernyataan	Corrected pertanyaan Correlation	Item Total	Table r	Sig.	Ket
Zoom Meeting (X_1)	Zoom Meeting 1	0,510		0,194	0,000	Valid
	Zoom Meeting 2	0,472		0,194	0,000	Valid
	Zoom Meeting 3	0,336		0,194	0,001	Valid
	Zoom Meeting 4	0,233		0,194	0,020	Valid
	Zoom Meeting 5	0,354		0,194	0,000	Valid
	Zoom Meeting 6	0,322		0,194	0,001	Valid
	Zoom Meeting 7	0,297		0,194	0,003	Valid
	Zoom Meeting 8	0,405		0,194	0,000	Valid

Google Meet (X2)	Zoom Meeting 9	0,444	0,194	0,000	Valid
	Zoom Meeting 10	0,350	0,194	0,000	Valid
	Google Meet 1	0,209	0,194	0,037	Valid
	Google Meet 2	0,611	0,194	0,000	Valid
	Google Meet 3	0,285	0,194	0,004	Valid
	Google Meet 4	0,515	0,194	0,000	Valid
	Google Meet 5	0,325	0,194	0,001	Valid
	Google Meet 6	0,327	0,194	0,001	Valid
	Google Meet 7	0,405	0,194	0,001	Valid
	Google Meet 8	0,384	0,194	0,000	Valid
Keterampilan Presentasi (Y)	Google Meet 9	0,485	0,194	0,000	Valid
	Google Meet 10	0,550	0,194	0,000	Valid
	Keterampilan Presentasi 1	0,321	0,194	0,001	Valid
	Keterampilan Presentasi 2	0,507	0,194	0,000	Valid
	Keterampilan Presentasi 3	0,372	0,194	0,000	Valid
	Keterampilan Presentasi 4	0,251	0,194	0,012	Valid
	Keterampilan Presentasi 5	0,390	0,194	0,000	Valid
	Keterampilan Presentasi 6	0,352	0,194	0,000	Valid
	Keterampilan Presentasi 7	0,388	0,194	0,000	Valid
	Keterampilan Presentasi 8	0,433	0,194	0,000	Valid
	Keterampilan Presentasi 9	0,418	0,194	0,000	Valid
	Keterampilan Presentasi 10	0,363	0,194	0,000	Valid

Data source: Processed SPSS output, 2025

Based on the validity test results, it is known that all items in the questionnaire show results that meet the validity criteria. This is indicated by the significance value (Sig.) of each item being less than 0.05 and the existence of a positive correlation between each item and the total score. The correlation values obtained are in the range of 0.251 to 0.507.

In addition, these correlation values are also greater than the table r value of 0.194. Thus, all items in the

questionnaire are declared valid because they meet the two main validity requirements, namely Sig. < 0.05 and correlation value > table r. This high validity indicates that each question compiled in the research instrument is able to measure the variables under study accurately and consistently.

With these results, all items in the questionnaire are suitable for measuring the variables in this study, namely the comparison of the effectiveness of using Zoom Meeting and Google Meet in improving students' presentation skills.

Table 5
Instrument Reliability Test Results

Variabel	Reliabilitas Coefficient	Cronbach Alpha	Keterangan
Zoom Meeting (X1)	10	0,630	Reliabel
Google Meet (X2)	10	0,650	Reliabel
Keterampilan Presentasi (Y)	10	0,700	Reliabel

Data source: Processed SPSS output, 2025

From the table above, it can be seen that each variable has a Cronbach Alpha > 0.60. Thus, the variables (Zoom Meeting, Google Meet, and Presentation Skills) can be considered reliable.

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References

- Angelina, C. (2020). Efektivitas Penggunaan Zoom sebagai Media Pembelajaran Daring pada Masa Pandemi COVID-19. *Jurnal Pendidikan*, 8(2), 123–131.
- Arifin, M. B., & Muslim, S. (2021). Analisis Pengaruh Platform Digital Terhadap Hasil Belajar Mahasiswa Pada Masa Pandemi. *Jurnal Pendidikan Digital*, 3(2), 45–54.
- Arikunto, S. (2019). *Prosedur Penelitian: Suatu Pendekatan Praktik*. Jakarta: Rineka Cipta
- Arsyad, A. (2020). *Media Pembelajaran (Edisi Revisi)*. Jakarta: Rajawali Pers.
- Chawla, D. (2020). Comparative Study on Effectiveness of Zoom and Google Meet in Online Learning. *Journal of Digital Learning*, 8(3), 22–30.
- Creswell, J. W. (2020). *Educational Research: Planning, Conducting, and Evaluation Quantitative and Qualitative Research*. Pearson Education.
- Kuncoro, M. (2020). *Metode Kuantitatif: Teori dan Aplikasi untuk Bisnis dan Ekonomi*. Yogyakarta: UPP STIM YKPN.
- Kurniati, D., Farida, I., & Rahmawati, E. (2020). Strategi Efektif dalam Pembelajaran Online. *Jurnal Teknologi dan Pembelajaran*, 5(1), 40–46.
- Kustandi, C., & Darmawan, D. (2020). *Pengantar Teknologi Pembelajaran*. Depok Rajagrafindo Persada.
- Mazda, A. S., & Fikria, H. (2021). Efektivitas Penggunaan Google Meet dan Zoom Meeting dalam Pembelajaran Jarak Jauh. *Jurnal Teknologi Pendidikan dan Pembelajaran*, 9(1), 15–24.
- Monica, J., & Fitriawati, D. (2020). Efektivitas Penggunaan Aplikasi Zoom Sebagai Media Pembelajaran Online Pada Mahasiswa Saat Pandemi. *Jurnal Communio: Jurnal Ilmu Komunikasi*, 9(2), 1630–1640.
- Mulyani, S. (2020). Efektivitas Media Pembelajaran Daring dalam Pembelajaran Jarak Jauh. *Jurnal Teknologi Pendidikan*, 22(1), 45–53.

- Munir. (2020). *Pembelajaran Digital*. Bandung: Alfabeta.
- Prasetya, I. D., & Harjanto, A. (2020). Pemanfaatan Media Pembelajaran Berbasis Online dalam Proses Belajar Mengajar. *Jurnal Pendidikan Inovatif*, 7(2), 85-91.
- Santosa, R. D. (2021). Presentasi Efektif: Keterampilan Berbicara Mahasiswa dalam Pembelajaran. *Jurnal Bahasa dan Komunikasi*, 5(3), 45-52.
- Setyowahyudi, H., & Ferdiyanti, D. (2020). Analisis Hambatan Pembelajaran Jarak Jauh pada Masa Pandemi. *Jurnal Ilmu Pendidikan*, 10(3), 55-62.
- Sugiyono. (2020). *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Bandung: Alfabeta.
- Susilana, R., & Riyana, C. (2020). *Media Pembelajaran Interaktif di Era Digital*. Bandung: PT Remaja Rosdakarya.
- Suyanto, E. (2020). *Strategi Pembelajaran Abad 21: Inovasi di Era Digital*. Yogyakarta: Deepublish.
- Widodo, W. (2020). *Statistika untuk Penelitian Sosial*. Yogyakarta: Penerbit Andi.
- Wijaya, H., & Kurniasari, D. (2020). Keterampilan Komunikasi Lisan dalam Presentasi Akademik Mahasiswa. *Jurnal Pendidikan Bahasa dan Sastra*, 10(1), 77-85.
- Yuliani, F. (2020). Mengatasi Kecemasan dalam Presentasi Mahasiswa: Pendekatan Psikologis dan Praktis. *Psikopedagogia Jurnal Bimbingan dan Konseling*, 9(2), 66-73.
- Yuliana, S. (2020). Pembelajaran Daring: Tantangan dan Peluang di Masa Pandemi. *Jurnal Pendidikan dan Teknologi*, 5(2), 1-8.