



Media Mentimeter as Assessment Instrument Formative Text Report Observation Results of Grade X High School Students

Niken Aprilyana¹, Jacob Nasucha², Atiqa Patience³

^{1,2,3}Masters Education Language Indonesia, University Muhammadiyah Surakarta,
Surakarta, Central Java

Corresponding E-Mail: S200220011@student.ums.ac.id

Received: 2024-08-30 Accepted: 2025-06-29

DOI: 10.24256/ideas.v13i1.5543

Abstract

This study aims to determine the relationship between student and teacher perceptions regarding the effectiveness of using mentimeter as a formative assessment instrument for text. report results observation on student class X SENIOR HIGH SCHOOL. Study This is mixed research type of quantitative and qualitative methods. This study uses a sequential explanatory design strategy. The subjects in this study were students of class X4 of SMA Muhammadiyah PK Kottabarat Surakarta. While the object of this study is the use of Mentimeter media as a formative assessment instrument on material teach text report observation. Technique collection data Which used in this study in the form of a questionnaire in the form of a *Likert scale*. This study uses technique analysis data in a way *statistics descriptive instrument* non-test. Data on opinions or responses to the Mentimeter media were collected through a questionnaire that was analyzed using descriptive *statistics* of non-test instruments. The results of the study have shown that students' and teachers' perceptions showed very positive results. Through open questions asked to students and assessment questionnaires addressed to teachers, it is proven that Mentimeter media is effective when used as a formative assessment instrument. This can be seen from the actual score Which show 100 And score ideal 136 with results presentation as much as 73.52% which shows that it falls within the percentage range of 65% - 85% indicating effectiveness.

Keywords: *Mentimeter, Formative Assessment, Text Results Report Observation*

Introduction

The industrial revolution 4.0, which is currently underway, is clearly a period in which technology and machines change human lifestyles (Kuswanto & Walusfa, 2017; Nurkolis & Muhdi, 2020). Almost everyone in their daily lives they always use technology, such as laptops and gadgets, in their daily lives. The use of this technology is very important to make the process learning become more interesting (Irfan, et et al., 2019; Muyaroah & Dawn, 2017). The learning process is truly a form of effort to build, explore, and improve the potential of each student (Rahadian, 2017).

Based on opinion Aka that ability or the quality of students can be improved by utilizing digital technology or the internet in an effort to seek knowledge without being limited by space and time. (Aka, 2017). Technology of course has a role Which very important in modern education. This can certainly help expand access to education, improve effectiveness teaching, and prepare student for time the front dominated by technology. In era digital Which the more rapid moment This, of course utilization technology in world education become a matter Which not we are able avoid.

Wrong One form innovation Which naturally interesting attention We is the use of interactive media such as Mentimeter which helps in the learning process. This study certainly aims to test the effectiveness of Mentimeter media as a formative assessment instrument in text teaching materials. results report observation. Thus, it is expected can contribute to the development of more effective and interesting learning models for students.

Process assessment in process learning is a component the most important use knows how much understanding from participant educate That alone. however, often method assessment Which used Still tend conventional and less actively involving students. Formative assessment is an assessment Which done during process learning That ongoing. Matter This of course, this is in line with the opinion of Lestari & Kuryani, who stated that this formative assessment focuses on measuring students' abilities in the learning process.

(Sustainable & Kuryani, 2023). Of course, assessment This used as for now so far where objective learning Which has achieved by students. This is done during the learning process and is used as a basis for conducting reflection to throughout process Study. Results from assessment This can be used as a reference for planning subsequent learning and to make revisions if necessary. Referring to the opinion of Eremina (in Wulan, et al., 2020) which states that formative assessment as "more frequent testing" refers more to increasing the frequency of summative assessment itself. Formative assessment itself focuses more on the frequency of assessment.

Assessment formative This more emphasize more Lots on achievement in every point in time measurement. Assessment formative This, different with opinion (Baruta, 2023) which considers the assessment carried out to provide information or feedback to the teacher and students to help repair learning process.

This formative assessment is important to do, this is in line with the ideas put forward by (Kumano, 2001) that assessment defined as assessment of activities carried out during the learning process. Assessment itself is used as one of several support systems used to determine whether or not learning is successful.

Mentimeter as platform presentation interactive, offer various interesting features like such as quizzes, polls, and word cloud Which naturally can actively engage students in the learning process. However, to what extent are these features capable of increase effectiveness as assessment formative Still need under review Furthermore. Mentimeter is platform interactive Which capable make various type question, like polling, quiz, And word cloud. Mentimeter own the view that almost similar with Microsoft Office Powerpoint. Excess from media Mentimeter can to weave communication two direction between presenter and deep listener network (Darmayasa, et al, 2023).

Matter This Of course potential change environment class become more interactive, interesting, And inclusive, even within reach class big even though. Mentimeter is Wrong One platform which offers various feature Which allow interaction active between Teacher and his students (Sulistyono, et et al., 2023; Orphans, et et al., 2024). Mentimeter has a lot of interactive features, such as quizzes, polls, and word cloud, which can allow Teacher For make process learning become more dynamic, responsive, and inclusive for the different learning styles of each student (Gokbulut, 2020; Saragih, et al., 2023).

Interactive platforms like this have great potential to increase interaction in learning process (Pamuk, et al., 2015; Suryaningsih & Dear, 2021). Mentimeter as platform on line Which allow development various tool evaluation, including assessment formative. Research Which related with media mentimeter Also done by Study Which done by (Zulfa & Huda, 2021); (Sorry, 2022); (Mirayani, et al., 2022); (Syaputra, et al., 2021) that examines the effectiveness of using Mentimeter in process learning Language Arab And mathematics. The results of the study based on a literature review of Mentimeter media have proven to be effective and get response Which positive for student.

Equality Which done researcher previous with study This located on focus study in accordance with the second problem formulation which shows the effectiveness of using media Mentimeter. The difference located on object Which used in study the. Study This own formulation problem namely How is the relationship between student and teacher perceptions regarding the effectiveness of using Mentimeter media? as instrument assessment formative material teach text report observation results.

Objective from study This Of course For now connection student perception And Teacher to effectiveness use mentimeter as assessment instrument formative text report results observation on student class X Senior High School. Study this is trying offer solution alternative through use mentimeter in the form of assessment formative Which the result can displayed in a way real time in gadgets

for each student. Thus, it is expected to improve the quality of learning in measure understanding student related material Which has been taught and overcome constraint Which often appear in process assessment in a way conventional.

Effectiveness from use Mentimeter in learning moment This become an interesting research topic, especially in the context of education that is increasingly adopting technology. The essence of the excellence of Mentimeter media itself is seen that the *professional*, minimalist and modern appearance is able to create a more serious and focused learning atmosphere. Not only that, *the flexibility* of the question format allows the creation of various questions, such as *multiple choice*, *open ended*, *ranking*, *guess the number*, *world cloud*, *scales*, *quick form*, And *100 points* so that matter This, capable measure various aspect student competency. In this case, the mentimeter *platform* is used as a form of formative assessment instrument for student learning in the classroom to make it more interactive and all students can understand the material given by the teacher.

Method

This study uses a mixed method research type, namely quantitative and qualitative methods. This study applies a design research strategy. explanatory sequentially (sequential explanatory design). Gather and analyze quantitative data first after that, using the results of the quantitative analysis to design the qualitative phase. After the qualitative phase is completed, qualitative data is collected and reanalyzed to explain or deepen the quantitative findings (Nur Cahyadi, et al., 2024). This research was conducted at SMA Muhammadiyah PK Kottabarat Surakarta which is located at Jalan Pleret Raya, Sumber, Ke. Banjarsari, Surakarta City, Central Java 57138. The subjects in this study were class X students of SMA Muhammadiyah PK Kottabarat Surakarta.

While the object of this study is the use of Mentimeter media as a formative assessment instrument in the teaching material of observation report texts. This study uses data sources, namely from class X SMA students, as well as from Which obtained when do observation in a way direct, and also written questionnaire. The data collection technique used in this study is a *Likert scale*. *The Likert scale* is used to measure attitudes, opinions and perceptions somebody or a group about incident or symptom social (Riduwan, 2020). *The Likert scale* is used to find out how effective the Mentimeter media is as a formative assessment for grade X students. Here students are also asked to provide their opinions and perceptions about the Mentimeter media itself.

In this study, descriptive analysis was used to analyze the data from the feasibility assessment results with the calculation of the average. The data collected consisted of qualitative and quantitative. Data on students' opinions or perceptions of the mentimeter media were collected through a questionnaire that was analyzed using descriptive statistics of non-test instruments, namely the Likert scale. These results are used to determine the level of effectiveness of the mentimeter as a

formative assessment medium for students. To determine the ranking of each variable, compare the actual score with the ideal score. For the actual score, all respondents' opinions counted use classification weight Which has given (1,2,3, and 4). For the ideal score, the highest predicted value is multiplied by the number of questionnaires multiplied by the number of respondents. If this is shown through a formula, it will look like the one below.

(Narimawati, 2010)

Information:

- Score current is score answer Which obtained from all over Respondent on

$$\% \text{ Score Current} = \frac{\sum \text{skor jawaban}}{\sum \text{skor ideal}} \times 100\%$$

the observations that have been submitted.

- Score ideal is score maximum or score highest Which could be obtained if all respondents chose the highest scoring answer.

From results calculation comparison between score current with score ideal contributed with the following table:

Table 1. Criteria Percentage Response Respondents

Amount Score (%)	Qualification
85% - 100%	Very effective
65% - 85%	Effective
45% - 65%	No effective

Results and Discussion

Perception Student and Teacher to Effectiveness Media Mentimeter as Formative Assessment

1. Perception Student & Teacher to Media Mentimeter

Perception student to media Mentimeter seen that, student tend more involved in the learning process when using Mentimeter, because they can provide *real-time responses* and see their classmates' responses. Students also feel that the appearance of the Mentimeter media is very interesting and interactive. The results of this perception are carried out by providing open questions to students. The following are open questions that are asked to students to find out their perceptions of the Mentimeter media used: (1) Do you experience difficulties when using Mentimeter media in implementing formative assessments? If so, what are the difficulties? (2) Do you feel that this formative assessment is effective when used with Mentimeter media? (3) Do you feel comfortable with the *real-time answers* in completing this formative assessment using Mentimeter?

From these open questions, it can be seen that many students think that the Mentimeter media is very fun and very easy. For used Because can accessed through *website* and only enter the code, without having to use the application. So, students feel that they have no difficulty in accessing this formative assessment through Mentimeter media. Then referring to the second question, that many students think that, after use media Mentimeter student become known answer Which one is correct and which one wrong. Students feel that visuals are made in the form of *polling*, this answer feels very fun, students get to know how many students answered correctly and incorrectly.

This allows students to be able to interact with each other interaction for compete to get the answer correct. Referring to question open number 3, the amount student to argue that, the assessment that displayed in a way *real time* this is it depends on context learning. Students feel that for learning Indonesian if the results of their work are displayed in *real time* it is very enjoyable and more exciting, different Again in learning mathematics Which Better For results work done in a way closed. With displayed results in a way *real time* here it is, able to increase student motivation.

Which become One problem in context learning Language Indonesia in particular, in the assessment process, teachers often use closed assessments, so that it cannot be used to measure students' understanding to what extent the achievements are obtained (Thahir, 2024). Almost all Indonesian language subjects, especially in class X, teachers only use assessment in a way closed, with reason process evaluation become faster and more objective because the teacher only needs to match the students' answers with the answer key.

But it is necessary known, that Closed assessments often only measure factual knowledge and cannot measure thinking skills. critical, communication, or breakdown problem in a way comprehensive. As for students who have different ways of thinking, they will have difficulty expressing their understanding through limited answer choices. Where in process evaluation That should can done in a way open and can be known by anyone. This is in line with the opinion of (Siregar, et al., 2023) that procedure evaluation and criteria evaluation must open and clear, assessment results entitled known for know how much big achievement Which obtained for students.

This can not only be seen from the students' perceptions, but also the perceptions of Indonesian language teachers related to the Mentimeter media used in formative assessments. The results of teacher perceptions related to the Mentimeter media were carried out by providing teacher assessment instruments for the Mentimeter media. as assessment formative on material teach text report results observation. Based on the results of the assessment conducted by Indonesian language teachers related to formative assessment on Mentimeter media.

There are five aspects of the indicators assessed, namely: Mentimeter media makes it easy to identify student understanding, formative assessment using Mentimeter is suitable for use in the high school, the media is interesting and interactive, the level of visual quality, and its interactive design can increase student involvement and understanding. The researcher implemented the formula that has been explained to calculate the percentage of assessment on Indonesian language teachers. The percentage results of Indonesian language teachers related to the media used, based on the assessment of Indonesian language teachers on indicators of questions 1-5, are 80%, 80%, 100%, 90%, and 90%.

Results recapitulation perspective Teacher to media mentimeter as formative assessment instruments in Indonesian language learning for the Observation Report text material are presented in table 4 below:

Table 2. Recapitulation Perspective Teacher to media Mentimeter as a Formative Assessment of Observation Report Text material

No	Question	Value (1- 50)
1	Whether media Mentimeter make it easier in identify students' understanding of the material that has been taught?	40
2	Does formative assessment use Mentimeter media? suitable utilized for evaluation student SENIOR HIGH SCHOOL Muhammadiyah PK Kotabarat?	40
3	Whether Mentimeter make process learning become more interesting and interactive?	50
4	How level quality visual in assessment formative using Mentimeter media?	45
5	Whether design interactive help increase student engagement and understanding of learning materials?	45

Formula Percentage Average:

$$P = \frac{\sum V_i}{n} \times 100\%$$

Source: (Aliyah et et al., 2018)

Information:

P = Percentage evaluation from Teacher

V_i = Amount mark evaluation from Teacher i-n = Sum of the maximum values of i-th

Percentage evaluation from Teacher on indicator question number 1

$$P = \frac{V_i}{n} \times 100\%$$

$$P = \frac{40}{50} \times 100\%$$

$$P = 80\%$$

Percentage evaluation from Teacher on question indicator number 2

$$P = \frac{V_i}{n} \times 100\%$$

$$P = \frac{40}{50} \times 100\%$$

$$P = 80\%$$

Percentage of assessment from teachers on indicator question number 3

$$P = \frac{V_i}{n} \times 100\%$$

$$P = \frac{50}{50} \times 100\%$$

$$P = 100\%$$

Percentage evaluation from Teacher on question indicator number 4

$$P = \frac{V_i}{n} \times 100\%$$

$$P = \frac{45}{50} \times 100\%$$

$$P = 90\%$$

Percentage of assessment from teachers on indicator question number 5

$$P = \frac{V_i}{n} \times 100\%$$

$$P = \frac{45}{50} \times 100\%$$

$$P = 90\%$$

Based on the percentage results, it shows that Mentimeter media shows a positive perception not only from students but also from the perception of Indonesian language teachers. Teachers consider that this media is very helpful in quickly identifying the extent to which students understand the subject matter. This Mentimeter brings significant efficiency in time and resources in the context of education. Not only that, this media is very suitable for use at the high school level because of its easy access. Indonesian language teachers feel that, in media Mentimeter Lots very Features which is used not only as evaluation material but can also be used as an assessment.

This can be used as a source of new knowledge for Indonesian language teachers as a form of solution for a more effective assessment process. with assisted technology. From results study here it is, that Mentimeter is a very useful tool for teachers in improving the quality of learning to be better. With its various advantages, Mentimeter can be one of the solutions to overcome challenges in learning in the current digital era. However, in addition to the advantages in this media, it is certain own challenge Which bad happen in process workmanship assessment.

This matter Of course need study more in Again about Mentimeter. Potential cheating in process do assessment formative this is it Which become challenge the biggest. Because students can also search for other sources of answers via Google. during process workmanship ongoing. Although There is challenge technical that may be encountered in some settings, the benefits in increasing student engagement and enriching the learning experience appear to outweigh these obstacles.

2. Effectiveness Media Mentimeter as Assessment Formative

Mentimeter media has proven to be an effective tool as a formative assessment for grade X students. This can be seen from the results of student and teacher perceptions which gave positive responses to the use of Mentimeter in formative assessment. However, important for remember that Mentimeter just Wrong One learning aids. To achieve optimal results, the use of Mentimeter must be done with the right teaching method.

Data on opinions or responses to the Mentimeter media were collected through a questionnaire that was analyzed using *descriptive statistics of non-test instruments* in the form of a questionnaire using a *Likert scale*. In determining the ranking in each research variable, it can be seen from the comparison between the actual score and the ideal score. Score current obtained through results calculation all over opinion Respondent according to the weight classification that has been given (1,2,3,4). Meanwhile, the ideal score is certainly obtained by obtaining the highest predicted value multiplied by the number of questionnaires. multiplied amount respondents. If matter This depicted through formula, then it will look like below.

$$\% \text{ Score Current} = \frac{\text{skor aktual}}{\text{skor ideal}} \times 100\%$$

Source: (Narimawati, 2010)

Information:

- Score current is score answer Which obtained from all over Respondent on the observations that have been submitted.
- Score ideal is score maximum or score highest Which could be obtained if all respondents chose the highest scoring answer.

From the results of the comparative calculation between the actual score and the ideal score, the following table is contributed:

Table 3. Criteria Percentage Response Respondents

Amount Score (%)	Qualification
85% - 100%	Very effective
65% - 85%	Effective
45% - 65%	No effective
25% - 45%	Very No effective

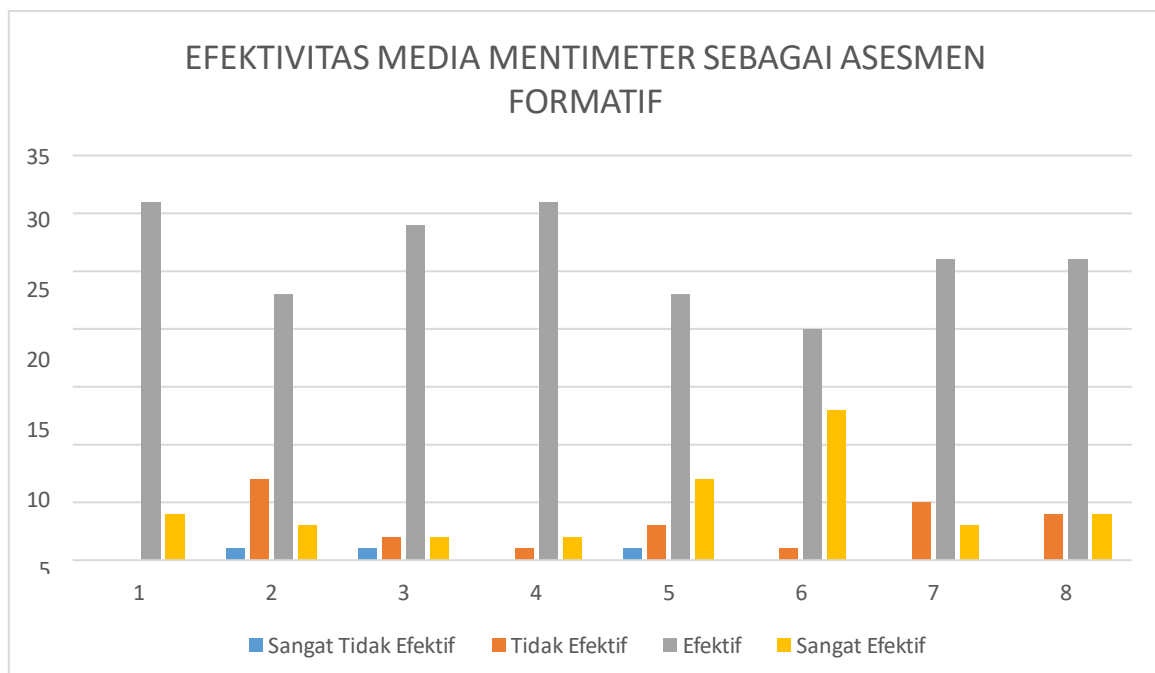
Based on the results Surveys using questionnaires have found the effectiveness of Mentimeter media as a formative assessment in Indonesian language learning in class. X SMA. The following are respondents' responses regarding the effectiveness of mentimeter media as a formative assessment based on respondents' answers using the established formula.

Table 4. Results Analysis Response Participant Educate to Media Mentimeter as a Formative Assessment

No	Actual Score Indicator	Ideal Score	Percentage Description
1	Effectiveness Media Mentimeter as Assessment Formative	100 - 136	Effective

Based on Table 4.4 above, it can be concluded that the effectiveness of utilizing mentimeter media as a formative assessment is 73.52%, this means that based on the results of the responses according to the respondents it is effective; because 73.52% is included in table 4.3 regarding the criteria for the percentage of respondents' responses falling into the range of 65% - 85%.

Picture 1. Table Effectiveness Media Mentimeter as Assessment Formative



Based on data Which has exposed on, seen that perception students on the media effectiveness indicator as a formative assessment divided into 8 questions. In questions 1 to 8, it can be seen that many students predominantly choose

effective. After the questionnaire data, all opinions from respondents are classified according to the weights that have been given, namely (1,2,3,4), then the data is distributed into the following table:

Table 5. Questionnaire Participant Educate on Indicator Effectiveness Mentimeter Media as Formative Assessment

No	Question	Choice				Actual Score	Ideal Score	%
1	What is the media? Mentimeter as a formative assessment is effective in measuring your understanding on the material that has been studied?			31	3	105	136	77.20
2	Do you feel that Mentimeter media is effective? become a good assessment tool to replace or complete form evaluation other?	1	7	23	3	96	136	70.58
3	How effective is the media? Mentimeter in helping you understand the material lesson?	1	2	29	2	100	136	73.52
4	How effective is the media? Mentimeter in providing feedback on understanding You?		1	31	2	103	136	75.73
5	How effective is the media? Mentimeter in formative assessment increase your motivation to study?	1	3	23	7	104	136	76.47
6	Mentimeter media in formative assessment to make learning more effective? pleasant?		1	20	13	114	136	83.82

7	Mentimeter media in formative assessment in helping you measure progress study?		5	26	3	100	136	73.52
8	How much effective Mentimeter media in strengthening your understanding on the material that has been studied?		4	26	4	102	136	75
Average						100	136	73.52

The results of the study showed that the use of Mentimeter media as a formative assessment is very important in supporting the implementation of the learning process to measure how much students understand the material that has been taught by the teacher. In addition, the results of the trial also stated that Mentimeter media effective for used. Size effectiveness can see from questionnaires of various aspects, for example, attractive visuals and the suitability of questions to learning objectives in the teaching module presented in the Mentimeter media. Student perceptions and effectiveness from use media Mentimeter as assessment formative showed very positive results for students. This can be seen from several samples of student perception transcripts which state the following:

MDA: "The formative assessment is very effective, easier to understand, not boring, and very enjoyable."

KPAJA: "Very exciting sis. Practice understanding text in a way fast/question with the existence of a point motif makes it more exciting, so there is motivation to quickly catch up on points."

HAFP: "Very pleasant Because with use learning This the way we work becomes less boring."

LPD: "Fun & exciting, because it can motivate someone. Unfortunately, the time given is too fast, so sometimes you don't really understand the reading before the time runs out."

NF: "The media very pleasant and easy very for used".

KHD: "Media mentimeter very exciting although A little nerve-wracking. The visuals are very good."

ATH: "Exciting very the media from on quiz don't know Why Okay very for materials that are not heavy".

SQF: "I am happy, because learning to use a mentimeter is fun and enjoyable."

Hopefully Tomorrow Can Study Again use mentimeter”.

MAH: “Learning become more exciting with mentimeter, become more enthusiastic about learning”.

EMR: “This is a fun and new medium for me, but the short time frame makes me a little panicked.”

Based on the results of the implementation of this research, it shows that the use of Mentimeter media as a formative assessment instrument is able to improve understanding student to material text report results observation. Matter This Also in line with previous research that shows that the use of interactive technology can improve learning outcomes because students compete to get the highest points. As many results from the percentage of students stated that the use of Mentimeter in formative assessments was very enjoyable and make they more interested follow learning.

Interactive features such as quizzes and polls are considered to make the learning atmosphere more enjoyable and not boring. This is in line with the opinion of (Rahmawati, 2017) that effectiveness is a measure of success of a process interaction inter-student and between student with Teacher in educational situations to achieve learning goals. The effectiveness of using Mentimeter in learning is an interesting research topic, especially in context education that increasingly adopting technology.

Mentimeter as an audience response platform that enables instant and inclusive interactions between teachers and students, which can enhance the learning experience. Mentimeter has the potential to transform the classroom environment into a more interactive, engaging, and inclusive one, with impact Which positive to attitude And performance student (Mohin, et et al., 2020).

Based on the results of students' and teachers' perceptions related to the Mentimeter media, it certainly reveals evidence that the Mentimeter media has proven to be effective as a formative assessment tool in learning Indonesian for grade X high school students. Its advantages include ease of use; user friendly; anyone can quickly learn how to create and manage quizzes. This simplicity allows anyone from a variety of technical backgrounds to utilize this technology without any obstacles.

Its flexible use makes Mentimeter a popular choice among educators to increase interaction and active participation from students. Based on data collected through questionnaires, the majority of students gave positive responses to the use of Mentimeter media. Overall, for student, Mentimeter media effectiveness valued at 73.52% fall into the “Effective” category based on the established criteria. Meanwhile, the percentage results of Indonesian language teachers related to the media used, based on evaluation Teacher Language Indonesia on indicator question 1-5, namely 80%, 80%, 100%, 90%, and 90%. It can be concluded that

both students and Indonesian language teachers agree that Mentimeter media is an effective tool when used as a formative assessment.

Conclusion

Class observation report texts X. Implementation assessment This get results perception Which positive for students and teachers. The results of this perception were carried out by giving open questions to students, many students think that this Mentimeter media is very pleasant, easy very for used Because only use the website and just enter the code, then the results of the work can be seen online real time. Matter This No only can see from perception student only, but also the perception of Indonesian language teachers related to the Mentimeter media used in formative assessment.

The researcher implemented the formula that has been explained to calculate the percentage of assessment for each teacher. The percentage results of Indonesian language teachers related to the media used, based on the assessment of Indonesian language teachers on indicators questions 1-5, namely 80%, 80%, 100%, 90%, and 90%. From the results of this percentage, it shows a very positive and effective response to the use of Mentimeter media as a formative assessment.

The results of the effectiveness of Mentimeter media as a formative assessment, especially in learning Indonesian language material on observation report texts, have shown... effectiveness from utilization media mentimeter as assessment formative of 73.52%, this means that based on the results of the responses according to respondents is effective; Because 73.52% including to in table 3 about presentation criteria response Respondent enter to in range 65% - 85%. The success of effectiveness can be seen from the interaction process between students and between students and Teacher in situation educative for reach objective learning. From The results of students' and teachers' perceptions from the results of the questionnaire that has been given can be concluded that both students and teachers agree that Mentimeter is an effective tool when used as a formative assessment.

Therefore, the results of students' and teachers' perceptions of the use of Mentimeter media as assessment formative, in learning Language Indonesia material text of the observation report, gave a very positive response. By utilizing the media mentimeter in process learning capable give atmosphere enjoyable learning especially in the assessment process. Mentimeter media can be used as a means to support a very relevant learning process, because no only made into as assessment just but Also form evaluation in learning. Mentimeter Also have a chance make student each other give motivation and compete when studying which ultimately can improve their learning outcomes

References

- Aka, KA (2017). Utilization of Information and Communication Technology (ICT) as a Form of Learning Resource Innovation in Elementary Schools. *ELSE (Elementary School Education Journal): Journal of Elementary School Education and Learning*, 1 (2a).
- Aliyah, VN, Chamalah, E., & Arsanti, M. (2018). Poster Writing Skills with Contextual Learning Model and Image Media with Public Service Advertisement Theme. *KEMBARA: Journal of Language, Literature, and Teaching*, 4 (1).
- Baruta, Y. (2023). Assessment Learning on Curriculum Independent: Education Early Childhood, Elementary Education, and Secondary Education. P4I Publisher. <https://books.google.co.id/books?id=QQLJEAAAQBAJ>
- Darmayasa, Jero B.; Aras, IMA (2023). Microlearning: Theory and Implementation in Higher Education. Syiah Kuala University Press. <https://books.google.co.id/books?id=Ifz6EAAAQBAJ>
- Gokbulut, B. (2020). the Effect of Mentimeter and Kahoot Applications on University students'E-learning. *World Journal on Educational Technology: Current Issues*, 12 (2), 107–116.
- Husnaini, H., Yahya, A., & Putri, N. I. W. (2023). The Efficacy of the Presentation, Practice, and Production (PPP) Method on the Speaking Skill of the English Learners Community (ELC) Students. *EDULANGUE*, 6(1), 45-61.
- Irfan, I., Muhidin, M., & Ristina, E. (2019). Development Media Learning Science Based Powerpoint in School Base. *English Journal of Primary Education*, 3 (2), 16–27.
- Kumano, Y. (2001). Authentic Assessment and Portfolio Assessment-Its Theory and Practice. Shizuoka University.
- Kuswanto, J., & Walusfa, Y. (2017). Development of Learning Multimedia in Information and Communication Technology Subjects for Grade VIII. *Innovative Journal of Curriculum and Educational Technology*, 6 (2), 1–7.
- Lestari, Heni & Kuryani, T. (2023). Principles of Teaching and Assessment I. Ministry of Education, Culture, Research and Technology, 49.
- Maghfiroh, DL (2022). The Effectiveness of Mentimeter Media with the Indonesian Realistic Mathematics Approach on Social Arithmetic Material for Class VII SMP PGRI 1 Wajak. *Laplace: Journal of Mathematics Education*, 5 (2), 324–330.
- Mirayani, NN, Yasa, IN, & Sudiana, IN (2022). The Effectiveness of Mentimeter as an Interactive Learning Media in Class X IBB 1 SMAN 1 Kintamani. *Indonesian Student Research Journal*, 2 (2), 213–219.
- Muyaroah, S., & Fajartia, M. (2017). Development of Android-Based Learning Media Using Adobe Flash CS 6 Application in Biology Subjects. *Innovative Journal of Curriculum and Educational Technology*, 6 (2), 22– 26.
- Masruddin, M., & Abduh, N. K. (2024, May). Indonesian Language Learning for

- Foreign Speakers Based on Luwu Culture: A Needs Analysis Study. In 4th International Conference on Linguistics and Culture (ICLC-4 2023) (pp. 75-80). Atlantis Press.
- Madehang, M., Masruddin, M., & Iksan, M. (2024). Reflecting on the Implementation of Online English Learning in Islamic Higher Education: Lecturers and Students' Perspectives. *International Journal of Asian Education*, 5(3), 183-197.
- Narimawati, U. (2010). *Methodology Study: Base Compiler Study Economy*. Genesis.
- Nur Dear, S. S. T. M. M., Dr. Asep Deni, M. M. C. Q. M. C. B. A., Dr. Drs. I Wayan Big Suacana, M. S., Dr. Agus Mr. Suprpto, S. P. M. P. I. P. M., House Alma Yep, S. P. M.
- S., Dr. Sahrullah, STMT, dr. Wahyu Indah Dewi Aurora, MKM, Dr. Hadi Sutrisno, SEMS, Ir. Research Data Analysis. Cendikia Mulia Mandiri. <https://books.google.co.id/books?id=OewYEQAQBAJ>
- Nurkolis, N., & Muhdi, M. (2020). Policy Effectiveness Social Media-Based E-Learning in PAUD During the Covid-19 Pandemic. *Jurnal Obsesi: Journal of Early Childhood Education*, 5 (1), 212–228.
- Pamuk, S., Ergun, M., Cakir, R., Yilmaz, HB, & Ayas, C. (2015). Exploring Relationships Among TPACK Components and Development of the TPACK Instrument. *Education and Information Technologies*, 20, 241–263.
- Rahadian, D. (2017). Information and Communication Technology (ICT) and Learning Technology Competence for Quality Teaching. *Learning Technology*, 2 (1).
- Riduwan, MBA (2020). *Methods & Techniques for Writing a Thesis*. Alfabeta: Bandung.
- Saragih, A. Y., Sihombing, A. F., Simangunsong, M., & Yunita, S. (2023). Evaluate Student Effectiveness in Accounting for Tasks and Involvement in Learning Through Mentimeter Media. *Inspirational Education Essence*, 5 (4).
- SIREGAR, E., Sinambela, Y., & Simangunsong, PBN (2023). Pedagogical competence of P3K/CPNS graduates. *Cattleya Darmaya Fortuna*. <https://books.google.co.id/books?id=hrvHEAAAQBAJ>
- Sulistiyono, BA, Hima, LR, Handayani, AD, Yohanie, DD, & Darsono, D. (2023). Workshop Development Media Learning Alternative Based on Mentimeter for MGMP Junior High School Teachers in Kediri City. *Dedication Nusantara: Journal of Community Service in Elementary Education*, 3 (2), 107–113.
- Suryaningsih, S., & Nurlita, R. (2021). The Importance of Innovative Electronic Student Worksheets (E-LKPD) in the 21st Century Learning Process. *Indonesian Journal of Education*, 2 (07), 1256–1268.
- Syaputra, AF, Mantasiah R, MR, & Rijal, S. (2021). Web-based Mentimeter Learning Media in Learning German Writing skills. *Proceedings of The International Conference on Science and Advanced Technology (ICSAT)* .

- Wulan, A. R., Rustam, N. Y., Wandering, D. J. M. D., & PRESS, U. P. I. (2020). Use Assessment Performance: For Learning Science and Study. UPI Press. https://books.google.co.id/books?id=et_3DwAAQBAJ
- Yatimah, D., Ansori, A., Hermawan, Y., Alhadihaq, MY, Erlangga, E., Putri, PK, Lestari, RD, Suhendi, HY, Laksono, B. A., & Novianti, S. (2024). Utilization of Digital Platforms for Creative and Innovative Learning. Bayfa Cendekia Indonesia. <https://books.google.co.id/books?id=Np8JEQAAQBAJ>
- Zulfa, DR, & Huda, N. (2021). The Effectiveness of Mentimeter Media on Understanding Language Material Arab Covid-19 Pandemic Era. Alibaba': Journal Education Arabic, 2 (1), 24–39.