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DEVELOPMENT OF ECONOMY MICROLEARNING MEDIA ASSISTED BY INSTAGRAM TO IMPROVE STUDENT LEARNING OUTCOMES

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ABSTRACT

This study aims to develop and evaluate, describe how the feasibility, effectiveness, results of student's responses to Instagram-assisted microlearning media to improve student learning outcomes. The resulting product is concist of content text, images, and videos share through in account @easyconomi. The uniqueness of this research lies in the use of Instagram as the primary medium for delivering microlearning materials, which has not been systematically utilized in the senior high school in Surabaya especially in economic subject. This research used Reaserch and Development (R&D) method with ADDIE model and was conducted at SMA Labschool UNESA 1 Surabaya, with 20 students. The methods of data collection are observation, quesionnaries, surveys and documentation. Data were collected through expert validation sheets, student response questionnaires than pre-test and post-test instrument and was analyzed with SPSS application using t-test and N-Gain test. It is recommended that this Instagram-assisted microlearning media be used alternative learning tool. The limitation of this reaserch lies in the small sample size and limited implementation duration. Future reaserch must involve more divrse participant and evaluate long-term impacts accros various subjects or school levels.

Keywords: *Microlearning, instagram, addie, learning outcomes*

INTRODUCTION

Quality education is one of the main goals in the Sustainable Development Goals (SDGs). Education plays a major role in empowering individuals. Improving access to and quality of education is considered a key foundation for achieving the other 16 goals in the SDGs. The quality of education has been the subject of intense debate over the past few years (Alifah, 2021). Education plays a significant role in achieving the Sustainable Development Goals (SDGs), especially Goal 4: Quality Education. In today's era, technological advancement continues to reshape educational practices globally. Countries around the world, including Indonesia, are facing the challenges of digital transformation in education. Indonesia, in the era of Industrial Revolution 5.0, must adapt to digitalization to overcome global challenges. However, digital transformation also brings new problems, such as student distraction during learning (Sutarsih et al., 2024).

The researcher conducts field observations. Observations in one of the digital-based private high schools in Surabaya reveal that many students lose focus, often engaging in games or chatting during lessons. This phenomenon is caused by long learning durations and monotonous teaching methods that lead to boredom. The methods and media used by teachers in the classroom, namely using lecture and question and answer methods. One of the causes of learner boredom. Then for learning media using power point, e-books and student worksheets. The material in the E-Book which has many pages makes students lazy to read, this condition also occurs in one of the State Senior High Schools in Malang City, where thick textbooks cause students to rarely read and tend to like practical media (Amalina et al., 2021). The three media are also used in other subjects. So that students feel bored because the learning media is less interesting and varied. Based on the observation result analys, students need media that is in accordance with the characteristics of students who like visual learning, short auditory and utilize social media in its application. Because generation Z is more dominant in using digital media. Learners need a learning method that is short and does not take up a lot of time. Therefore, microlearning by utilizing Instagram application will be one of the alternatives in overcoming students' problems. Because social media is recognized as the fastest growing and most popular internet-based technology (Demir, 2024). Facilitating real-time communication sharing information through computers or mobile devices (Guo & Saxton, 2014).

Instagram is one of the social media applications that can be utilized for the learning process, then 99% of students have an Instagram account. Instagram social media can be categorized as microlearning because it can be used as a small-scale learning method where content (object learning) is designed into small segments through various media formats, so that the information available becomes "short content" (Nugraha et al., 2021). Instagram features that can be used to support learning media are stories, feeds, and reels (Indriyani & Nurjaleka, 2023). Through the utilization of these features, learning media content can be created using the microlearning method. Microlearning can be done in various forms such as short

lessons, timely lessons (taken when the user needs to learn how to do an immediate task) and short lessons using mobile text message format in the form of questions and answers to attract students' attention (Taylor & Hung, 2022) in (Adeoye et al., 2024). Research result by (Ilmiah, 2024). Instagram as a learning tool significantly increases student engagement, as it is packaged through interactive content that supports the visualization of Geographical concepts and processes. In line with research (Ghafar, 2023), stated that microlearning is an efficient technique that can be integrated with social media as a learning tool, flexibly packaged to facilitate students' learning styles anywhere and anytime. However, there are still some weaknesses in the learning, such as the lack of content. Furthermore, there is also relevant research that shows the positive impact of social media on students' learning experiences. The use of Instagram is emerging as a relevant complementary learning tool in educational midwives (AlFaris et al., 2018; Chugh et al., 2020; Diao & Hedberg, 2020; Hortigüela-Alcala'et al., 2019; Izquierdo-Iranzo & Gallardo-Echenique, 2020) in (Obeso et al., 2023). Instagram is considered effective for learning because it can create a creative and flexible learning experience (Kurnia & Nasution, 2023).

Instagram-based learning media can improve student learning outcomes (Hidayatulloh et al., 2024). In addition, social media is also considered to facilitate syncronus and asyncronus learning styles with many additional features, including resource linking and sharing, and voice messaging (Alonzo et al., 2023). Previous research has developed microlearning learning media through Instagram at the Senior High School level in Geography subjects with hy-fact and hy-act strategies. Then there is research that develops Instagram-based learning media to improve student learning outcomes at the Vocational High School level in the subject of basic electrical concepts (Ilmiah, 2024). Based on the research gap, the researchers developed learning media at the high school level in the subject of economics on the material of Financial Institutions in the Indonesian Economy. The novelty of this research is to develop learning media called @easyconomi by utilizing Instagram social media with the microlearning method and producing short content in the form of combining text, images, audio, and video to improve student learning outcomes to improve student learning outcomes. The research will be conducted at SMA Labschool 1 Surabaya State University.

The development of microlearning learning media assisted by Instagram can be one of the right solutions to add innovation and effectiveness in learning. Through microlearning content that is uploaded on the features on Instagram to the maximum, it will create an attractive and creative appearance on the learning media. So that this media can be an attraction for students during the learning process in class and independent learning at home.

RESEARCH METHOD

The type of research used in this study is Research and Development (R&D). Research and development is used to evaluate the development and test the effectiveness of the product in producing it (Sugiyono, 2018). This research model uses the ADDIE development model. Robert Maribe Branch developed ADDIE (Analysis, Design, Development, Implementation, and Evaluation) to design learning systems. The following is a scheme of the ADDIE development model.
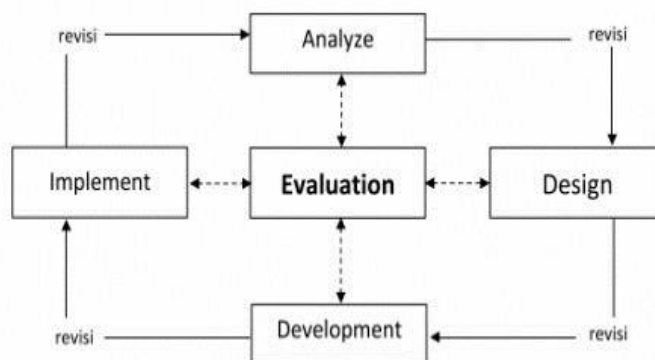

Figure 1.
ADDIE Development Model Design
Source: Branch (2009)

The methods of data collection are observation, quesionnaries, surveys and documentation. Data were collected through expert validation sheets, student response questionnaires than pre-test and post-test instrument. This research was conducted in class X-3 SMA Labschool UNESA 1 Surabaya in April 2025 which amounted to 20 students. The design used is One Group Pre-Test and Post-Test Design. This aims to observe student learning outcomes before and after the use of learning media Microlearning assisted by Instagram @easyconomi. Then, testing student learning outcomes using the t-test and N-Gain test. Microlearning learning media assisted by Instagram is declared effective for improving learning outcomes when getting the N-gain value obtained in the moderate category and with a percentage in the moderately effective category (Riduwan, 2016). The learner response questionnaire uses the Guttman Scale calculation and then adds up the scores for each learner to measure how effective the Instagram-assisted Microlearning learning media is to improve student learning outcomes.

RESULTS AND DISCUSSION
RESULTS

The development of microlearning media @easyconomi using the ADDIE development model reference has five stages which will be explained as follows.

Analysis

At this stage, researchers analyzed several aspects related to students while learning in the classroom. The results of the analysis of students in class X SMA Labschool UNESA are the characteristics of most of them have active and communicative characters. However, this can have a bad impact on the learning process when the teacher explains, some students chat with their classmates. The facilities they have such as Tablets / Laptops sometimes make them want to play games or social media in the middle of learning. The use of curriculum in class X SMA Labschool UNESA 1, using the Merdeka Belajar curriculum. Using learning outcomes as a guide to measure student development and determine the competencies that must be used. Based on observations in class X, students have visual and auditory learning styles. When they only hear the teacher's explanation and see the power point, they are less enthusiastic about learning, so there is a need for innovative learning media and in accordance with a concise and innovative learning style, by utilizing social media that all students have, namely Instagram. So that researchers will develop content learning media by combining text, images, audio and video on Instagram.

Design

In this media development is done by planning Instagram-assisted microlearning learning media tailored to the problems found. At this stage, researchers first develop a media display that is packaged attractively and informatively. So that it can be clearly read by students. Choosing a color pallete, font size and type, graphic elements, sound, images and video animation materials.

Figure 2.
Cover Development
Source: Researcher (2025)

Then, the content of the material is packaged in a structured, concise, logical manner, using language that is easy to understand. Content development starts from the introduction of the media, developer profile, instructions for use, table of contents, core competencies, material, and quiz. Furthermore, the researchers carried out design and editing by combining colors, graphic elements, typography, images, videos, materials, and ways of presentation to remain harmonious and proportional for use by students and teachers. Design development prioritizes uniqueness and suitability for learning objectives and student characteristics.
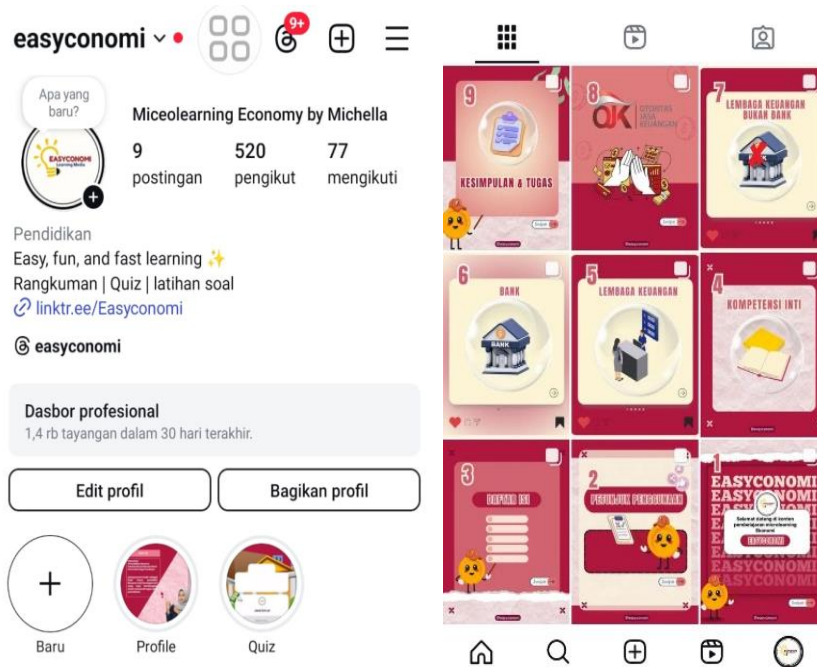

Figure 3.
Design Developement @easyconomi
Source: Researcher (2025)

Implementation

The implementation of microlearning economy learning media was carried out on students of class X-3 at Labschool UNESA 1 Surabaya High School. The implementation of the media took place 3 times a meeting which counted as much as 6-8 hours of lessons along with filling out the previously prepared instruments. The application of microlearning learning media is adjusted to the learning scenarios and teaching modules that have been previously designed.

Implementation of microlearning learning media using one group pre-test and post-test. To observe the differences in student learning outcomes that occur before and after the application of microlearning learning media @easyconomi. After that, carry out the stage of taking data on the response questionnaire of students to the use of microlearning media to see measure the effectiveness of Instagram-assisted Microlarning learning media to improve student learning outcomes.

Evaluation

Evaluation at this stage is carried out based on the results of the pre-test and post-test which are used to measure the success of using microlearning learning media @easyconomi on student learning outcomes. In addition, evaluation is also carried out on the feasibility test of learning media. In the feasibility test evaluation, it is used so that the development of microlearning media assisted by Instagram @easyconomi can be said to be a feasible media based on the lecturer's assessment through revision (improvement) in the form of suggestions, input and criticism. At this stage also see the results of the response to the microlearning media assisted by Instagram.

Media Feasibility Results

The media validation test stage is intended to determine the feasibility level of microlearning learning media @easyconomi. Media expert validation was conducted by Eka Hendi Adiansyah obtained a total score of "84" with a feasibility percentage of 93,3%. Then the material expert validation by Retno Mustika Dewi, got a total score of "62" with a feasibility percentage of 95,3%, thus getting a total media validation score of 95,3%.

From these results, it is then referred to the pre-determined criteria table and shows the results > 81%. So that it is said that the material on the microlearning @easyconomi learning media is "very feasible". Based on the scores of media experts and material experts then calculated as follows.

Table 1.
Recapitulation of Expert Validator Results

No.	Validation	Score	Criteria
1.	Media Expert	93,3%	Very Feasible
2.	Material Expert	95,3%	Very Feasible
	Average Result	94,3%	Very Feasible

Source: Researcher (2025)

Based on the results of the data recapitulation above, it is known that the average score obtained from two expert validators, namely media expert validators and material expert lecturers, obtained a score of "94,3%". Referring to the predetermined criteria, that the score > 81% is included in the very feasible category. Therefore, the results of the validation of the two expert lecturers were declared "very feasible", so it can be concluded that Instagram-assisted microlarning learning media is very feasible to use in the learning process in the classroom to improve student learning outcomes in economics subjects in the material of financial institutions in the Indonesian economy. After going through the validation stage and including the experts' suggestions and input, the Instagram-assisted microlearning learning media is prepared to be tested in the field. Instagram-assisted microlearning learning media can be accessed on an Instagram account with the account name @easyconomi.

Media Effectiveness Results

Effectiveness is done to estimate the extent of understanding ability that has been achieved by students. Measurement of effectiveness is done through pretest and posttest results. After conducting research in class X-3 SMA Labschool UNESA 1 Surabaya with a total of 20 students, the results of the acquisition of pre-test and post-test scores were obtained. The average pretest score was 54% with the highest score obtained of 70 and the lowest score of 30. Then the average posttest score was 94% with the lowest score obtained of 80 and the highest score of 100. After knowing the results of the pre-test and post-test, it is continued by measuring the effectiveness of these results using hypothesis testing and n-gain. To find out whether there is an influence or not between the pretest and posttest results, the Paired Sample T-Test is used. The test calculation gets the following value.

Table 2.
Result Pired Sample T-Test

Pair	Significance	Description
Pre Test – Post Test	0,000	Difference

Source: Researcher (2025)

Based on the table 2, it can be seen that the Paired Sample T-Test test results if the significance value is 0.00 which means < 0.05. Therefore, from these results it can be seen if H_a is accepted and H_0 is rejected. So, it can be said that there is a difference in the average value before and after the use of microlearning media @easyconomi or it can be said that microlearning media @easyconomi has an effect on improving student learning outcomes. Then, the n-gain calculation is carried out with a predetermined formula, so as to get the following results.

Table 3.
Results of N-Gain Test

N	N-Gain Score	N-Gain (100%)
20	0.8	80,2%

Source: Researcher (2025)

Based on these calculations, it shows that the average N-gain score obtained is 80,2%. Referred to the N-gain category, it can be seen if the N-gain result is > 0,7 so that it can be categorized as high. By analyzing based on the criteria for the effectiveness of the N-gain score which gets a percentage of 80,2%, it can be said that the microlearning media @easyconomi is in the "effective" category to be used in the economic learning process.

Learner Response Analysis

After students use microlearning learning media assisted by Instagram @easyconomi, students can respond to their interest in microlearning learning media @easyconomi to help the learning process in improving learning outcomes. There are two aspects that are assessed, namely device and learning aspects. The

results of students' responses to microlearning learning media assisted by Instagram @easyconomi get the following results.

Tabel 4.
Student Respon Result

No.	Aspect	Percentage	Category
1.	Device	96%	Very Good
2.	Learning	97,5%	Very Good
Total Mean		96,75%	Very Good

Source: Reseacher (2025)

Of the two aspects of response, the device aspect obtained a percentage of 96% in the "very good" category while the learning aspect obtained a percentage of 97% in the "very good" category. So that it gets a total mean of 96,7% with a "very good" category. The highest percentage is owned by the device aspect. This is because many students consider that the learning process using microlearning learning media assisted by Instagram is an interesting learning to use because the packaging of material using Microlearning assisted by Instagram makes it easier for them to learn the material. Then for the device aspect in second place because students can easily access this media on the device they have, namely Hand Phone/Gadget/Laptop.

DISCUSSION

Researchers developed microlearning learning media whose application through Instagram social media aims to improve student learning outcomes. This study presents a novel approach by integrating Instagram—a social media platform widely used by high school students—as a microlearning tool to teach Financial Institutions. Previous studies have rarely explored the effectiveness of Instagram for structured academic microlearning in economics. Through the observations of researchers, students still feel bored and bored in the learning process so they don't pay attention to the teacher's explanation. This happens because the teacher applies contextual learning methods through power point with learning resources for student worksheets and e-books that have many pages. As a result, students have difficulty understanding and remembering the material. Therefore, this research is expected to make a significant contribution in improving student learning outcomes. So that microlearning learning media assisted by Instagram @easyconomi can be a solution to the problem of students who are less enthusiastic, experience boredom, do not focus on the teacher's explanation resulting in decreased learning outcomes. These results can be seen from the application of Instagram-assisted microlearning learning media through the results of the t-test and N-Gain test using the SPSS 25.0 application.

Researchers have carried out all stages of development, then tested it in the field. This media is considered very feasible by media experts and material experts. The existence of Microlearning learning media through Instagram which is made

concisely, informative and interesting will help students to understand and remember the material, content that is uploaded on a schedule can make students remember the learning that has been received previously. Designing specific content in the material can increase the benefits and results of using the content. Packaging learning content that is short, concise, clear, simple and can be used in syncronus or asyncronus can make it easier for students to understand the material (Pebriantika et al., 2025). With the use of digital learning media, it can help teachers in supporting learning so that it can increase students' interest in learning. Microlearning helps students retain knowledge quickly and adapt to information processing, acquiring new material effectively (Emerson & Berge, 2018). The use of Instagram with various interesting features as learning media (Amanda et al., 2024). Supported by Instagram features that allow teachers to create interactive materials and assignments through images and videos (Kurnia & Nasution, 2023). Each content-focused unit enables learners to master concise concepts and materials (Bannister et al., 2020). The effectiveness of microlearning media assisted by Instagram @easyconomi is proven by an increase in student learning outcomes after using this media. This increase is supported by the results of the N-Gain test which received the "high" and "effective" categories. This proves that microlearning assisted by Instagram @easyconomi can be an effective strategy to improve learning outcomes, the T-Test results also show a significance value of 0.000 <0.0500 which means that there is a difference in student learning outcomes between before and after the application of learning media. Student responses to the microlearning learning media assisted by Instagram @easyconomi are also very positive, with most students assessing the device and learning aspects in the "very good" category.

Although this study showed positive results, there are some limitations in this study, this study was only conducted with a limited number of students, namely 20 students. In addition, this study only focused on one subject on the material, namely the material of Financial Institutions in the Indonesian Economy. Overall, this research contributes to the development of innovative learning media that is relevant to the characteristics of students in the digital era. Based on these findings, it can be concluded that the developed Instagram-assisted microlearning learning media is very effective and serves as a feasible and effective learning media in digital-based learning. Specifically, this media supports the improvement of student learning outcomes on the material topic of Financial Institutions in the Indonesian Economy of Class X High School. This study has practical implications for teachers and education practitioners. By leveraging Instagram-based microlearning content, teachers can deliver short, targeted lessons that align with students' digital habits. This approach can be particularly useful for homework reinforcement, content reinforcement, or remedial instruction.

CONCLUSION

From the result of the analysis and discussion previousy described, it can be concluded that, (1) the result of although this study showed validation of the two

expert lecturers were declared "very feasible", (2) microlearning media @easyconomi is in the "effective" category to be used in the economic learning process, (3) Of the two aspects of response, gets a total mean of 96,7% with a "Very Good" category. It was concluded that microlearning media @easyconomi is very feasible and effective for improving learning outcomes. There are some limitations in this study, this study was only conducted with a limited number of students, namely 20 students. In addition, this study only focused on one subject on the material, namely the material of Financial Institutions in the Indonesian Economy. Overall, this research contributes to the development of innovative learning media that is relevant to the characteristics of students in the digital era. Based on these findings, it can be concluded that the developed Instagram-assisted microlearning learning media is very effective and serves as a feasible and effective learning media in digital-based learning. Specifically, this media supports the improvement of student learning outcomes on the material topic of Financial Institutions in the Indonesian Economy of Class X High School. The development of microlearning assisted by Instagram like @easyconomi can be recommended for adaptation in other subject and tested on a larger scale so that the results can be generalized more comprehensively.

REFERENCES

Adeoye, M. A., Prastikawati, E. F., Oladimeji, R. M., & Olaifa, A. S. (2024). From Overwhelm to Success: Empowering Educational Personnel with Microlearning and Self-Paced Training to Maximize Performance and Avoid Burnout. *International Journal of Educational Review*, *6*(1), 46–58. https://doi.org/10.33369/ijer.v6i1.31228.

Alifah, S. (2021). Peningkatan Kualitas Pendidikan di Indonesia Untuk Mengejar Ketertinggalan Dari Negara Lain. *CERMIN: Jurnal Penelitian*, *5*(1), 113. https://doi.org/10.36841/cermin_unars.v5i1.968.

Alonzo, D., Oo, C. Z., Wijarwadi, W., & Hannigan, C. (2023). Using Social Media for Assessment Purposes: Practices and Future Directions. *Frontiers in Psychology*, *13*(January 2023), 1–15. https://doi.org/10.3389/fpsyg.2022.1075818.

Amalina, E. N., & Inayati, R. U. (2021). Pengembangan Media 'Economic Monopoly'Berbasis Game Untuk Mata Pelajaran Ekonomi Kelas X SMAN 1 Singosari. *Jurnal Pendidikan Ekonomi (JUPE), 9*(3), 129-137.

Amanda, S. H., Anggi Tias Pratama, & Kartika Ratna Pertiwi. (2024). The Use of Instagram as Learning Media: Application of Instagram Media in Biology Learning. *Perspektif Ilmu Pendidikan*, *38*(1), 1–9. https://doi.org/10.21009/PIP.381.1.

Bannister, J., Neve, M., & Kolanko, C. (2020). Increased Educational Reach through a Microlearning Approach: Can Higher Participation Translate to Improved Outcomes? *Journal of European CME*, *9*(1), 1834761. https://doi.org/10.1080/21614083.2020.1834761.

Demir, M. (2024). A Taxonomy of Social Media for Learning. *Computers and Education*, *218*(May), 105091. https://doi.org/10.1016/j.compedu.2024.105091.

Emerson, L. C., & Berge, Z. L. (2018). Microlearning: Knowledge Management Applications and Competency-Based Training in The Workplace. *Knowledge Management and E-Learning*, *10*(2), 125–132. https://doi.org/10.34105/j.kmel.2018.10.008.

Ghafar, Z. N. (2023). Microlearning As a Learning Tool for Teaching and Learning in Acquiring Language: Applications, Advantages, And Influences on the Language. *Canadian Journal of Educational and Social Studies*, *3*(2). https://doi.org/10.53103/cjess.v3i2.127.

Hidayatulloh, A. R., Zuhrie, M. S., Kholis, N., & Harimurti, R. (2024). Pengembangan Media Pembelajaran Digital Berbasis Instagram Pada Mata Pelajaran Dasar Teknik Elektronika Kelas X TAV di SMKN 3 Surabaya. *Jurnal Pendidikan Teknik Elektro*, *13*(02), 127–137. https://doi.org/10.26740/jpte.v13n02.p127-137.

Ilmiah, K. (2024). Development of Geography Microlearning Media Content Assisted by Instagram Platform to Learn Inland Waters for High School Students. *Studi dalam Geo-Pendidikan*. *1*(2), 236–255.

Indriyani, T., & Nurjaleka, L. (2023). Pemanfaatan Media Sosial Instagram Sebagai Media Pembelajaran Bahasa Jepang. *JLA (Jurnal Lingua Applicata)*, *6*(2), 74. https://doi.org/10.22146/jla.78723.

Nasution, A. K. P. (2023). Instagram in English Language Learning: A Systematic Literature Review. *Journal of Linguistics, Literature, and Language Teaching (JLLLT)*, *3*(1), 33–52. https://doi.org/10.37249/jlllt.v3i1.708.

Nugraha, H., Rusmana, A., Khadijah, U., & Gemiharto, I. (2021). Microlearning Sebagai Upaya dalam Menghadapi Dampak Pandemi pada Proses Pembelajaran. *JINOTEP (Jurnal Inovasi Dan Teknologi Pembelajaran): Kajian Dan Riset Dalam Teknologi Pembelajaran*, *8*(3), 225–236. https://doi.org/10.17977/um031v8i32021p225.

Obeso, M., Pérez-Pérez, M., García-Piqueres, G., & Serrano-Bedia, A. M. (2023). Enhancing Students' Learning Outcomes Through Smartphones: A Case Study of Using Instagram in Higher Management Education. *International Journal of Management Education*, *21*(3). https://doi.org/10.1016/j.ijme.2023.100885.

Pebriantika, L., Rahmi, J., Adesti, A. ., & Eriyanti, E. (2024). Efektifitas Penerapan Metode Microlearning untuk Meningkatkan Hasil Belajar Mahasiswa: Effectiveness of Microlearning Method Implementation to Improve Student Learning Outcomes. *Edu Cendikia: Jurnal Ilmiah Kependidikan*, *4*(02), 767–773. https://doi.org/10.47709/educendikia.v4i02.4870.

Riduwan. (2016). *Skala Pengukuran Variabel-Variabel Penelitian*. Alfabeta.

Sugiyono. (2018). *Metode Penelitian Kuantitatif, Kualitatif, R&D.* Alfabeta.

Sutarsih, W., Haryati, T., & Wiyono, N. (2024). Peran Digitalisasi Sekolah Terhadap Mutu Pendidikan. *LEARNING: Jurnal Inovasi Penelitian Pendidikan Dan Pembelajaran*, *4*(1), 136–143. https://doi.org/10.51878/learning.v4i1.2810.