

Development Edmodo Of Based On Learning Media With Zoom Meeting Applications And Whatsapp Social Media To Increase Learning Outcomes And Student Learning Motivation At SMA Swasta Jaya Krama Beringin

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Abstract. The purpose of the research is to evaluate the viability and efficacy of learning media created with the intention of enhancing educational outcomes and to ascertain how students' learning motivations interact. The ADDIE technique is used in this study. The SMA Swasta Jaya Krama Beringin served as the research site for this project. Class X MIA served as the research's sample. The study's findings are based on instructional materials that have been created and that are legitimate (eligible) for use in economics classes. based on the evaluation of the material, learning design, and media expert validators. The student educational outcomes based on learning media underwent adjustments that were successfully applied in economic learning, and the validator received 85% in the "very feasible" category. students' education.

Keywords: Based Learning Media, Motivation, Educational Outcomes

1 Introduction

Student learning outcomes can be used to judge a program's effectiveness. Students' educational outcomes can be seen from their achievement as measured by their scores on Daily Tests, Mid-Semester Exams, and Final Semester Exams. In reality, there are still many students whose learning outcomes are low. According to Purwanto (2010: 44), learning outcomes are teaching and learning processes that are in accordance with educational goals and make reference to changing behavior that occurs.

The learning process may be impacted by numerous things. Shah (2011: 145) classifies the elements that affect learning outcomes into three categories: There are three types of components: 1) internal aspects, which include pupils' emotional and physical health; 2) environmental circumstances nearby; and 3) external ones. A learning strategy is a kind of student learning

endeavor that entails the tactics and techniques that students employ to carry out tasks related to subject-matter study. Ayuba (Yusnita: 2017) asserts that the use of learning media that are appropriate to students' needs for learning materials and can encourage students to learn can motivate students in the implementation of learning and increase the learning outcomes attained. The need to improve learning outcomes through the

25 kids from class X MIA SMA Swasta Jaya Krama participated in the experiment. The question consists of four questions in the form of a description and has been studied, but only 36% of the 25 students who took the test demonstrated complete learning, and 74% scored below the KKM.

Based on the findings of their interviews with students and teachers, the authors learned that there was a difference during the Covenant-19 epidemic because, unlike today, when teachers used to teach face-to-face in the classroom, they now educate online or remotely. When students are at school, the teacher directly teaches them the topic from start to finish and can easily see how much of it they have understood. When teaching online, teachers sometimes encourage their students to ask questions if they don't understand, but doing so makes it difficult for them to keep track of how well their pupils are learning. Because it is transmitted via photos, PowerPoint, or written summaries shared over WhatsApp, the teacher's material is not optimal. It will affect pupils who are

One factor that is closely related and can support student learning outcomes in learning is student learning motivation. According to Sukmadinata (2005: 61), motivation is a force that drives individual activities, conditions within individuals that encourage or move individuals to carry out activities to achieve goals. As with learning motivation, the drive that exists in students to achieve maximum learning outcomes. Students will make various efforts to get factory results if they have good motivation. According to Sumadi Suryabrata (2002: 70), motivation is a state in a person's personality that encourages people to carry out certain activities to achieve goals. It can be concluded that learning motivation is a condition that exists within the individual that encourages students to learn and perform certain activities to obtain maximum learning outcomes and goals.

In accordance with the adoption of COVID-19, the government, through the Ministry of Education and Culture, issued guidelines for home learning for all schools and madrasas. These guidelines also included a directive for all educators or education personnel to conduct their work from home, or what is known as "Work from Home." This is being done to stop the COVID-19 transmission chain. As a result of this policy, teachers and students can no longer learn together in person as they typically do in the classroom; instead, they must communicate virtually using an online platform.

This is the best period for student learning to occur. Teachers are still working to make the most of online systems that use the internet as one of the learning medium for distance learning. In addition, instructors are compelled to alter commonly used learning models or methodologies. digitalizes the classical. The paradigm and method of information delivery in the field of education have changed as a result of the rapid growth of technology and information. The present learning media will expand as a result of using internet access as education technology advances. The

technology of the present day has also been able to use the technology of recent years, including traditional teaching techniques. Using e-learning is one of the various technologies available today that we can utilize for learning. Students can now experience changes in their many potentials in addition to being able to understand the material thanks to the introduction of e-learning as a type of educational innovation.

With the use of information and communication technology, students can now learn at any time and through any application (Dahiya, 2012). The 1970s saw the beginning of electronic learning, or e-learning (Waller and Wilson, 2001). E-learning is defined as structured learning with the intention of using an electronic or computer system by Michael (2013: 27). It might assist with studying. According to Nursalam (2008:135), the following are the characteristics of e-learning: (1) electronic technology services; (2) computer excellence; (3) the use of independent teaching materials that are then stored on the computer, allowing lecturers and students to access them whenever and wherever they are needed; and (4) the ability to view learning schedules, curriculum, progress results, and issues relating to educational administration at any time on a computer.

There are various e-learning media available. However, not all educators are skilled in the use of technology. For this reason, in order to maintain the highest level of student learning, we require an e-learning medium that is comparatively simple to operate and has good teacher-use capabilities. By adopting an online/online system and e-learning as one of the learning medium, educators aim to maximize remote learning. Additionally, educators are pressured to adapt traditional teaching methods or digital learning tactics. E-learning media have various kinds. For example, Google Classroom, Moodle, and Schoology. The social media involved in supporting e-learning are Instagram, WhatsApp, Twitter and E-mail. The web meeting application that is often used is zoom meeting and Google meet. So, in this study, the e-learning media used was Edmodo, supported by WhatsApp social media and the use of video conferencing was zoom.

Edmodo is the program utilized as a teaching tool. "Edmodo is an appealing social networking tool for instructors and students with a feature that resembles Facebook, however there is actually more value in this app" (Basori, 2013). With Edmodo, learning is flexible and not constrained by time or place. Meanwhile, Edmodo is a social networking-based website with a variety of educational content, according to Zwang (Hadi: 2018:64). With features similar to Facebook, Edmodo is an extremely appealing social media site for educators and students. Because it offers the best and most useful features, the Edmodo program makes it very simple for teachers to carry out the learning process and simply control the activities of their students. The Edmodo application's capabilities, which include sharing learning resources, assignments, quizzes, polling, groups, announcements, notes, and the comment feature that students may use, all make learning activities simple to use. The teacher supervises student learning activities on Edmodo in order to maintain a positive learning environment.

According to Wankel (Usman, 2016:3297), "the advantage of Edmodo is that it is easy to send files, images, videos and links, and easy to create groups for separate discussions according to certain classes or topics". According to Vittorini (Usman 2016:3297), "the lack of Edmodo is that

it does not have the option to send closed messages between fellow students, communication between students takes place globally within the group". In using Edmodo, the language used must be formal and clearly there should be no word abbreviations in using the language. Teachers and students must also work together to achieve the expected goals and learning process.

There is a previous study by Lila Listiyani whose results show that the learning media used is very effective in improving student learning outcomes. Furthermore, according to Pardanus' research (2016) entitled Development of e-learning in Operating System Subjects for Class X Smk N 3 Manado, the results show that e-learning media using Edmodo is an attractive, efficient and effective medium, and can improve student learning outcomes.

From the explanation above, it can be concluded that the Edmodo application is an attractive and effective medium, so that it can improve student learning outcomes. Therefore, researchers are interested in conducting a study entitled "Development of Edmodo-Based Learning Media with Zoom Meeting Applications and WhatsApp Social Media Improving Learning Outcomes and Motivation of Oktafulana (2015), entitled Development of Learning Media on Competency Standards Applying Fundamentals of Digital Techniques Assisted by Edmodo Classroom X Tei at State Vocational High School 3 Jombang studied at Krama Beringin Private High School."

2. Theory

The media has only ever been a teaching tool in the history of education. In contrast to today, the availability of learning media can also encourage, stimulate, and support kids' intellectual and emotional development. At first, the tools used were visual aids, namely in the form of tools that can provide experience through the sense of sight to achieve learning objectives. It can clarify and facilitate abstract concepts, and enhance absorption, but currently its function must be able to motivate learning, generate student creativity and learn to think at a high level (Rusman, 2013: 160). According to Sudjana (2009:2), Learning media can improve how students learn in the classroom, which is anticipated to improve how well students learn. The benefits of learning the media will certainly enhance the process and learning outcomes. There are several benefits of learning the media, according to Sanjaya (2012: 70), revealing the benefits of learning the media in particular, namely: Capture a certain object or event. Manipulating certain circumstances, events, or objects. Increase passion and motivation to learn.

Learning outcomes are the results of a relationship between the act of learning and the act of teaching, claims Dimiyati (2006:3). The process of evaluating learning outcomes marks the conclusion of the instructional action from the perspective of the teacher. Learning outcomes represent the end of the learning process from the perspective of the students. Then, according to Shah (2003:213), "Learning achievement is an ideal learning outcome that includes all psychological domains that change as a result of the experience and learning process of students". According to Ahmadi and Supriono (2004:138), in order to help students obtain the best learning outcomes, it is crucial to introduce the components that affect learning achievement. Learning

achievement is influenced by both internal and external influences, specifically as follows: Internal variables are categorized as:

1. Physical characteristics (physiology) can be inherited or acquired. These elements comprise sight, hearing, body composition, and others.

2. Congenital and acquired psychological variables include:

Intellectual considerations include:

a) Talent and intelligence are potential influences.

b) The accomplishments that have been made are the true indicator of skill.

b. Non-intellectual variables, such as specific personality traits like attitudes, routines, interests, wants, drives, and emotional responses.

c. Characteristics of physical and mental maturity

3. Research Method

At SMA Swasta Jaya Krama, located on Jalan Mimbar Umum Pasar VI Sidodadi Ramunia, Beringin, and Deli Serdang, this study was carried out. This study was carried out in class X MIA throughout the 2021–2022 school year. With the aid of Edmodo, research was done to create learning materials on economic topics. Making relevant learning materials is the aim. This kind of research is development-oriented (R&D). The ADDIE development model, which is an extension of analysis, design, development, implementation, and evaluation, is used in this study's creation.

A quantitative method will be used in further experimental study to examine the outcomes of this development. Researchers aimed to explore how to use produced media to improve student learning results and motivation. The results of a learning motivation questionnaire and post-test data were employed in the technical analysis of the data, which was a 2-way ANOVA test. All of the participants in this study were members of class X MIA, which had three classes total. Class X MIA1 served as the experimental class in this study, and class X MIA2 served as the control class.

4. Results and Discussion

It was discovered that the device developed was Edmodo-based learning media with Zoom Meeting Applications and Whatsapp Social Media to increase student motivation and student learning outcomes by using the ADDIE development model. This conclusion was reached based on the description of the research results that have been described in the research results section. Analyses, designs, development, implementation, and evaluation are extended in an R&D development model with the ADDIE approach. The validity and efficacy of the outcomes of the development of learning tools will be evaluated.

Based on validation through a series of trials and revisions that have been carried out, the Edmodo-based learning medium already has a valid status. The trials were carried out in seven stages: 1) media expert validation, 2) learning design expert validation, 3) material expert

validation 3) individually, in small groups, and in the field. Table 1 below shows the findings of the evaluations provided by several professionals and student trials:

1. Feasibility of using Edmodo-Based learning media with Zoom Meeting Applications and WhatsApp Social Media to increase learning motivation and student learning outcomes.

Table 1 Assessment Results on Edmodo-Based learning media with Zoom Meeting Applications and WhatsApp Social Media

No	Category	% Average Score	Criteria
1	Media Validation	84%	Very worth
2	Learning Design Validation	84%	Very worth
3	Material Validation	80%	worth
4	Individual Test	96%	Very worth
5	Small Group Trial	82%	Very worth
6	Field Trial	84%	Very worth
Rata-Rata		85%	Very worth

According to the table of results from the feasibility assessment of the Edmodo-Based Learning Media with the Zoom Meeting Application and WhatsApp Social Media, which was developed with an average percentage score of the overall variable score of 85%, it is categorized as "Very Good" Edmodo-Based Learning Media with the Zoom Meeting and Social Application. The produced Whatsapp medium has shown to be effective for usage in the teaching and learning process.

According to the study's findings (Fadloli, 2014), Edmodo-based Learning Media, expert review test results obtained an average score of 79%, small group trials obtained an average score percentage of 82%, and field trials obtained an average score percentage of 81%. Media experts received an average percentage of 85%, and experts in the field of media received an average percentage of 86%. in order for this Edmodo-based blended learning platform to be utilized as a learning tool.

Furthermore, the results of research (Barus, 2018) state that learning media by utilizing E-learning Media (Edmodo) on Local Area Network subjects is feasible to use. From the data obtained through existing questionnaires, overall, respondents rated E-learning learning media very interesting, creative and structured and met the eligibility indicators of 4.77 from material experts and 4.66 from students' Very Good criteria.

From the discussion above, it can be concluded that the development of the media is feasible to be used as a learning tool. Edmodo-Based learning media with the Zoom Meeting Application and WhatsApp Social Media can be used as a medium for economic learning in class X MIA1.

2. The Effectiveness of Edmodo-Based Learning Media With Zoom Meeting Applications And WhatsApp Social Media To Increase Learning Motivation And Student Learning Outcomes

Because each research participant's number is unique, the hypothesis will be tested using the 2x2 factorial analysis of variance (Anava) method and then further tested using the Scheffe test. The SPSS 21 program was used to process the data in order to produce the hypothesis' outcomes, which were as follows:

Table 2. Hypothesis Test Results Using SPSS 21

Tests of Between-Subjects Effects

Dependent Variable: Learning Outcome

Source	Type III Sum of Squares	Df	Mean Square	F	Sig.
Corrected Model	2104.420 ^a	3	701.473	20.087	.000
Intercept	400095.900	1	400095.900	11457.146	.000
Learning Media	165.186	1	165.186	4.730	.030
Learning Motivation	337.567	1	337.567	9.667	.002
LEARNING MEDIA * Learning motivation	1526.853	1	1526.853	43.723	.000
Error	1955.580	56	34.921		
Total	407500.000	60			
Corrected Total	4060.000	59			

a. R Squared = .518 (Adjusted R Squared = .493)

Based on this data, it could be concluded that using Edmodo-based learning resources along with Zoom meeting applications and WhatsApp social media revealed outcomes of Fcount 4,730 > Ftable 4.013 at a significance of 0.030 less than 0.05. It illustrates how students who are taught using Edmodo-based learning resources and the Zoom Meeting application learn economically. This research hypothesis is accepted based on the economic learning results of students who are taught utilizing Google Classroom and WhatsApp medium. Motivation displays the Fcount 9,667 > Ftable 4.013 results with a significance level of 0.002, which is lower than 0.05. It demonstrates that students who are motivated achieve better results in economic learning than students who are less motivated, supporting the validity of the research hypothesis. The findings of Fcount 43,723 > Ftable 4.013 at a significance of 0.000 less than 0.05 indicate that there is an interaction between the utilization of Edmodo-based learning media with the Zoom Meeting application and student motivation. This suggests that the application and Edmodo-based learning resources are interacting. This research hypothesis is supported by Zoom Meeting and student motivation for economic learning results.

According to the results of previous research (Muhajir, 2019), it is stated that the average value of the pre-test of the experimental group was 40.74 and the post-test was 80.31, while the results of the pre-test of the control group were 53.98 and the post-test value was 67, 65 then the student learning outcomes or post-test results of the experimental class students are higher than the post-test results of the control class. Meanwhile, according to the t-test calculation, the average post-test score for the control class is 80.53 and the post-test average for the experimental class is 67.68. This shows that the average value of the experimental class is higher than the control class. This result is also evidenced by the significance of the independent test sample t, which is 0.044. The significant results indicate that $0.044 < 0.05$ or t count t table then the hypothesis is accepted. It can be said that the application of Edmodo learning media is more because there is an increase in motivation and learning outcomes.

According to Nurul, (2017), the average value of students learning motivation who are taught with Edmodo media is 86.2 and those who do not use Edmodo media is 78.10. While the average value of student learning outcomes who are taught with Edmodo media is 82.5, those who are not taught using Edmodo media are 75.23. Based on statistical analysis for student learning motivation, which shows that the count obtained is 7.142 and the table is 2.00, for learning outcomes it is shown that the count obtained is 4.94 and the table is 2.00. So $t_{count} > t_{table}$. This shows that the difference in motivation and student learning outcomes on physics materials is significant in the middle between students who are taught using Edmodo media and those who are not taught using Edmodo media in class XI IPA SMAN 1 Tanete Rilau.

Thus, this increase in learning outcomes proves that the Edmodo-Based learning media with the Zoom Meeting Application is effectively used as a good learning tool for teachers in the field of economics studies or for students in the media. In other words, a learning device is said to be effective if it is achieved in the form of learning outcomes, effective and efficient in its use.

Conclusions and Suggestion

Based on the findings and discussion of the development research conducted, it can be concluded as follows:

1. Edmodo-Based learning media with the Zoom Meeting application developed meets the eligibility requirements (valid) to be used as learning media on economic subjects in the Cooperatives in the Indonesian Economy. The product developed, based on the assessment of material aspects, media aspects, and learning design aspects, which were carried out by experts and also student responses, obtained an average percentage of 85% feasibility level so that the conclusion was classified as "very feasible", category.
2. Edmodo-Based learning media with the Zoom Meeting application developed meets the effectiveness requirements to be used as learning media in economic subjects. The product developed based on statistical tests of learning motivation data and student learning outcomes taught using developed media were higher than the learning motivation and learning outcomes of students who were taught without developed media. This can be seen based on the test results using the 2-way ANOVA test with the test results showing the results of $F_{count} 6.872 > F_{table} 4.013$ at a significance of 0.030 less than 0.05. It explains that the economic learning outcomes of students who are taught with Edmodo-based learning media economic The Zoom Meeting

application is higher than the economic learning outcomes of students who are taught using google classroom and Whatsapp media, which means that this research hypothesis is accepted. Similarly, student motivation shows the results of $F\text{-count } 9.66 > F\text{-table } 4.013$ at a significance of 0.002. It shows that the economic learning outcomes of students with high motivation are higher than the economic learning outcomes of students who have low motivational abilities, which means that the research hypothesis is accepted. Furthermore, there is an interaction between the use of Edmodo-based learning media with the Zoom Meeting application and student motivation with the results of $F\text{-count } 43,723 > F\text{-table } 4,013$ at a significance of 0.000 less than 0.05. This indicates that there is an interaction between Edmodo-based learning media and the Zoom Meeting application and student motivation towards economic learning outcomes.

5 Conclusions

The following conclusion can be drawn from the development research's findings and analysis: 1) Edmodo-based learning resources that utilize the Zoom Meeting application have been produced and are eligible (valid) for use as educational materials on economic topics in cooperatives in the Indonesian economy. The generated product received an average feasibility level of 85% based on expert assessments of material elements, media aspects, and learning design features as well as student reactions, leading to the classification of the result as "extremely viable." 2) Edmodo-based learning resources with the created Zoom Meeting application meet the standards for effectiveness for use as teaching aids in economics courses. The product developed based on statistical tests of learning motivation data and student learning outcomes taught using developed media were higher than the learning motivation and learning outcomes of students who were taught without developed media. This can be seen based on the test results using the 2-way ANOVA test with the test results showing the results of $F\text{-count } 6.872 > F\text{-table } 4.013$ at a significance of 0.030 less than 0.05. It explains the economic learning outcomes of students who are taught economic-based media economics. This research hypothesis is accepted since the Zoom Meeting application outperforms the economic learning results of students who are taught through Google Classroom and Whatsapp media. Similar results from $F\text{count } 9.66 > F\text{table } 4.013$ are displayed for student motivation, with a significance level of 0.002. It demonstrates that students with high levels of motivation outperform those with low levels of motivation in terms of economic learning outcomes, supporting the validity of the research hypothesis. Furthermore, the results of $F\text{count } 43,723 > F\text{table } 4,013$ at a significance of 0.000 less than 0.05 show an interaction between the utilization of Edmodo-based learning material with the Zoom Meeting application and student motivation. This suggests that there is interaction between student motivation for economic educational results and Edmodo-based learning media and the Zoom Meeting application.

From the conclusions that have been stated, the following are suggested: 1) Edmodo-based learning media with the Zoom Meeting application have been tested for feasibility and effectiveness. It is recommended for teachers to use this learning medium as an alternative choice in the learning process, especially on different materials. 2) Edmodo-based learning media with the Zoom Meeting Application on Cooperatives in the Indonesian Economy. It can be suggested to

teachers or further researchers that Edmodo-based learning media with the Zoom Meeting application can also develop all other aspects, such as aspects of religious values, and morals, physical, motoric, social, emotional, cognitive, language, and artistic integrity.

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