



## The Influence of Instructional Media E-Learning Based Edmodo on Student Learning Outcomes of Basics Banking Class X Accounting

Monica Dewi<sup>1</sup>, Sri Zulaihati<sup>2\*</sup>, Achmad Fauzi<sup>3</sup>

<sup>1,2,3</sup> Universitas Negeri Jakarta, Indonesia

escience09@gmail.com

### ABSTRACT

This study aims to determine the effect of Edmodo-based e-learning media on student learning outcomes in the subjects of banking basics class X Accounting at SMK Negeri 42 Jakarta. The research method used is a quasi-experimental method with a research design post-test only control design. The samples taken were class X Accounting 2 as the experimental class and X Accounting 1 as the control class with 36 students each. The instrument used is a test. The test results data were analyzed by normality test, homogeneity test and hypothesis testing. The results of the normality test showed that the experimental class obtained  $L_{count} (0.113) < L_{table} (0.147)$  this means the data is normally distributed and in the control class obtained  $L_{count} (0.101) < L_{table} (0.147)$  this means the data is normally distributed. The homogeneity test shows that  $F_{count} (1.22) < F_{table} (1.76)$  then the data used is homogeneous. The results of hypothesis testing state that  $t_{count} (13.79) < t_{table} (1.66)$  this means that there is an influence of Edmodo-based e-learning learning media on the learning outcomes of students of class X accounting expertise competence at SMK Negeri 42 Jakarta

Keywords: *Learning Media, Learning Edmodo, Instructional Media E-Learning*

#### ARTICLE INFO

##### Article history:

Received  
October 06, 2020  
Revised  
November 25,  
2021  
Accepted  
November 27,  
2021

#### How to cite

Monica, D., Zulaihati, S., & Fauzi, A. (2021). The Influence of Instructional Media E-Learning Based Edmodo on Student Learning Outcomes of Basics Banking Class X Accounting. *IJoASER (International Journal on Advanced Science, Education, and Religion)*, 4(3). 170-183. <https://doi.org/10.33648/ijoaser.v4i3.76>

#### Journal Homepage

<https://ojs.staialfurqan.ac.id/IJoASER/>

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## INTRODUCTION

Education is the main pillar in the progress of the nation. So the importance of education. A country is said to be developed if the education in that country is growing rapidly. Anis Baswedan said "education in Indonesia is currently implementing 12-year compulsory education in the hope that educational progress will become eska"lator who can beat the backwardness in various regions in Indonesia (Anies Baswedan, "The Government Prepares Tools for 12 Years of Compulsory Education"). Education in Indonesia is quite developed as seen from several academic achievements achieved both in the national and international arena. Quoted from Mind-Rakyat.com "Five Indonesian students managed to make proud achievements at the prestigious International Exhibition for Young Inventors (IEYI) which took place in Harbin, China, 15 to 20 July 2016. The students with their three scientific works won 1 medal gold, 1 silver medal, and a number of special awards (Pikiran Rakyat; 2020)

Some of the achievements of the nation's children are not comparable to the overall achievements of children in Indonesia. This shows that education in Indonesia has not developed optimally. The lack of maximum education in Indonesia can be seen from student learning outcomes. Learning outcomes are the most important part of learning. Good learning will be seen through student learning outcomes.

Referring to Kanca Internasional, student learning outcomes can be seen from PISA. Based on the results of PISA "2015, which focused on scientific ability, showed that Indonesia was ranked 62 out of 70 countries" (Pisa, 2017). In addition to PISA, learning outcomes can also be seen through the results of the National Examination (UN). Reported from News.detik.com. "The average national exam score for public and private national high schools in 2015 was 61.29, while in 2016 the average score for national exams was 54.78 or a decrease of about 6.51 points. Meanwhile, the average score for the Vocational National Examination in 2015 reached 62.11 and in 2016 the average score fell to 57.66 or decreased by 4.45 points (Detik.com, 2016).

The decline in the results of the 2016 National Examination (UN) led to a decline in the graduation of high school students in Indonesia. Arie Budhiman revealed "for SMA there are 2 students and for SMK there are 6 students who did not pass the 2015 National Examination (Sindo News, 2017). "Meanwhile, in 2016 the number of high school students in DKI Jakarta who did not pass the National Examination increased to 45 students. Students who do not pass the UN for high school there are 21 students out of 51,190 students and 24 out of 64,373 SMK students (Wartakota.tribunnews, 2017)"

Based on the facts revealed, there are several factors that cause low student learning outcomes. First, lack of interest in learning. This can be seen from the low reading interest of students. A survey from UNESCO revealed "that students' interest in reading in Indonesia is only 0.001 percent, meaning that in 1000 people there is only one person who has an interest in reading. Asianto Sinambela emphasized that Indonesian people's interest in reading literacy is still lagging behind other countries. Out of 61 countries, Indonesia is ranked 60th." (Gobekasi.pojoksatu.id, 2017). Second, the lack of motivation to learn. The lack of student motivation to study resulted in an increase in the dropout rate. UNESCO Institute Of Statistics (UIS) shows that "Indonesia ranks 2nd in the high school dropout rate of 60% (Okezone.com, 2017). This shows the high dropout rate for students. The third is the lack of student learning resources.

Table 1  
Data on Schools and Libraries in Indonesia

No	Jenjang Sekolah	Jumlah Siswa	Jumlah Perpustakaan
1	SD	170.647	78.432
2	SMP	52.710	25.386
3	SLTA	30.968	14.781
	Jumlah	254.432	118.599

Source: PNRI data

Based on the explanation of the table above, it is clear that the number of schools with libraries is not comparable, which results in a decrease in student learning outcomes. Fourth, the teacher's competence is still low. Martadi revealed that the competence of teachers has not been in line with expectations, even though the main point is the quality of their human resources. This can be seen from the results of the Teacher Competency Test (UKG). The teacher competency test (UKG) in 2015 tested

teacher competencies in two areas, namely pedagogy and professional. "The average UKG result set is 55, but in reality the average obtained is 53.02 and only 7 provinces get scores according to the minimum competency standard (SKM) from 34 provinces that take part in the UKG." (Ministry of Education and Culture, 2015). This means that there are still many teachers who are weak in managing or providing learning in the classroom. Fifth is the minimal use of learning media. Due to the weak competence of teachers, many teachers do not use technology as a medium of learning. Alexius Akim said "The low UKG score is because there are still people who do not understand technology to support the teaching and learning process. Such as computers and other facilities and infrastructure." (Pojoksatu.id, 2017). One of the information technology-based learning media that can be used by teachers is Edmodo.

Purwanto stated that "learning outcomes are the embodiment of abilities due to changes in behavior carried out by educational efforts. Abdurrahman stated that learning outcomes are abilities obtained by children after going through learning activities (Asep Jihad and Abdul Haris, 2012). According to Sudjana, "learning outcomes are the abilities that students have after they receive their learning experiences" (Nana Sudjana, 2006). According to Asep Jihad "learning outcomes are the attainment of a form of behavioral change that tends to persist from the cognitive, affective and psychomotor domains of the teaching and learning process that is carried out within a certain time. As an activity that seeks to determine the level of success of students in achieving the goals set, the evaluation of learning outcomes has facilities in the form of domains contained in the objectives. The realm of educational goals based on student learning outcomes can generally be classified into three (Davies, 1986:97; Jarolimek and Foster, 1981:148), namely the cognitive, affective and psychomotor domains (Dimiyati & Drs Mujiono, 2006). This is in line with what was stated by Bloom and Usman.

Gerlach and Ely stated "A Medium, conceived is any person, material or event that establishes conditions which enable the learner to acquire knowledge, skill and attitude". According to Gerlach, in general the media includes people, materials, equipment, or activities that create conditions that enable students to acquire knowledge, skills and attitudes (Wina Sanjaya, 2015). Arsyad explained that, "learning media is media that carry messages or information for instructional purposes or contain teaching purposes (Azhar Arsyad, 2014). According to Munadi "learning media are everything that is used to convey and distribute messages from a source in a planned manner and lead to the creation of a conducive learning environment where the recipient is able to carry out an effective and efficient learning process." (Yudhi Munadi, 2010).

Kustandi put forward the criteria for selecting media, namely "according to the objectives to be achieved, appropriate to support the content of lessons that are facts, concepts, principles or generalizations, practical, flexible and enduring, skilled teachers use them, grouping targets and technical quality. Hamalik revealed that "choosing and using learning media must be in accordance with certain criteria, namely teaching objectives, lesson materials, teaching methods, availability of required tools, learning paths, assessment of learning outcomes, teacher's personality, student interests and abilities, current teaching situation. take place." (Oemar Hamalik, 1989). Dina Indriana in her book suggests that "indicators of learning media can be seen from the suitability of the teaching objectives, the materials taught, supporting facilities, environmental conditions and time, student characteristics, student learning styles and theories used." (Dina Indriana, 2011). "E-learning" is the process of applying learning with web-based

technology applications (web-based learning) (Rusman, 2016). Eveline Siregar argues that "e-learning can be defined as learning whose implementation is supported by technological services, such as telephone, audio, videotape, satellite or computer transmission." (Eveline Siregar, et al, 2014). The definition of e-learning put forward by Horton reads "E-learning is the use of information and computer technologies to create learning experience". Horton argued that e-learning is the use of information technology and computers to create learning experiences (Diana Ariani, 2011). Onno W. Purbo stated that "the term "e" or the abbreviation of electronics in e-learning is used as a term for all technologies used to support learning efforts through internet electronic technology.

*E-learning* has characteristics, namely "First, utilizing electronic technology services, where teachers and students, students and fellow students or teachers and fellow teachers can communicate relatively easily without being limited by protocol matters. Both take advantage of the advantages of computers (digital media and computer networks). Third, using self-learning materials are stored on computers so that they can be accessed by teachers and students anytime and anywhere if they need them. Fourth, make use of the learning schedule, curriculum, learning progress results, and matters relating to educational administration that can be viewed at any time on the computer.

Edmodo is a medium used in online learning. "Edmodo combines some of the features of the Learning Management System (LMS) with the features of the Social Network, becoming an attractive and easy-to-use learning media. Edmodo was created by Jeff O'Hara and Nic Borg in 2008." The idea in developing Edmodo stems from the popularity of Facebook which is given additional features to ensure safe interaction and collaboration between students and teachers. According to Carlson Edmodo is "the largest distance education social network on earth and is flexible and powerful enough to help bring together the many tools (media) at hand for the advancement of learners, as well as to renew and enrich the professional practice of teachers." (Ginger Carlson, 2015). In Francisco's book, Edmodo as "... a secure, social learning platform for teachers, students, schools and districts. We provide a safe and easy way for your class to connect and collaborate, share content and access homework, grades and school notices. Our goal is to help educators harness the power of social media to customize the classroom for each and every learner" (Francisco, et al, 2015).

Based on the results of Wirda and Almasari Sukaya's research entitled "The Influence of the Use of Edmodo-Based Electronic Learning Media on Student Learning Outcomes in the Training Course Installing a Class X Audio Video Engineering Sound System at SMK N 1 Kinali." (Wirda, 2014). The results showed that  $t_{count}$  was 1.886, which was greater than  $t_{table}$ , which was 1.677. This means that there is an influence of Edmodo-based electronic learning media on student learning outcomes. The results of the study also showed that the Edmodo electronic learning media had an effect of 6.97% on student learning outcomes. The learning outcomes of students who use Edmodo get a class average of 76.16 while students who do not use Edmodo only have an average of 71.20.

From the results of Evin Yudhi Setyono's research entitled "The Influence of the Use of Edmodo Social Network Media on Student Learning Outcomes on the Topic of Making S-Curves Using Excel Learning." (Evin Yudhi, 2014) The results showed that the mean ranks in the experimental class were greater than the control class, namely 33.79 while the control class was 17.85. It can be said that the learning outcomes using Edmodo media are better than classes that do not use Edmodo. In further hypothesis

testing, the Z value is -4.083 with Sig 0.000 less than 0.05. This means that there is a significant difference in learning outcomes between the control class and the experimental class due to the use of Edmodo media.

Based on what has been stated in the introduction, the hypothesis of this research is formulated that there is an influence of Edmodo-based e-learning learning media on learning outcomes.

## METHODS

This research method uses an experimental method with the type used is a quasi-experimental design method. In this method there is an experimental group and a control group. The difference is in the experimental group using the social networking media "Edmodo" for learning and accessing materials. The control group was not given treatment using the social networking media "Edmodo". The research design used is post test only control group design. In this design, there are two groups, each of which is chosen randomly (randomly, the control class and the experimental class will be given the same questions in the form of multiple choice questions with 25 questions.

To determine the effect of learning media variables (X) on learning outcomes (Y), the researchers described the influence in the following constellations:



Gambar III.1

Konstelasi Penelitian

Sumber : Data diolah oleh peneliti

In this study the population is all students at SMKN 42 Jakarta, totaling 731 students. While the affordable population with the criteria for status or registered as students in the accounting department of class X at SMKN 42 Jakarta, totaling 78 students. The samples used in this study were all students of class X AK 1 and class X AK 2, totaling 72 students.

Data collection techniques in this study is to use a test. The test is used to see student learning outcomes using Edmodo-based e-learning media with conventional learning models.

Before conducting the data analysis test, it is necessary to test the requirements first. The data analysis requirements test was used as a condition for inferential statistical data analysis. Requirements test is done by normality test and homogeneity test. Normality test is a step used to determine the distribution or distribution of data on research variables. The normality test of the data can be done with the Liliefors (Lo) test. The test is carried out using the Lo coefficient which is calculated by the following formula:

$$L_o = |F(Z_i) - S(Z_i)|$$

The homogeneity of the data means that the data has the same variation or diversity of values or is statistically the same. Homogeneity test using the F test with the formula (Kadir, 2010)

$$F = \frac{\text{Varians Terbesar}}{\text{Varians Terkecil}} = \frac{S_b^2}{S_k^2}$$

The t test is used to determine whether the independent variable partially has a significant effect on the dependent variable. To test it, the following formula can be used (Sugiyono, 2016).

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}}$$

**RESULTS AND DISCUSSION**

The results of this study were obtained from the results of field studies by giving tests. This research is expected to be able to show how much influence the Edmodo-based e-learning media has on student learning outcomes. The results of the study can be seen in the following data analysis:

**A. Descriptive Analysis**

The results obtained showed that there were significant differences in learning outcomes between the control class (X AK 1) and the experimental class (X AK 2). Differences in learning outcomes occur due to the use of Edmodo-based e-learning media in the experimental class, it can be seen in the following table:

Table IV.1.  
Data Distribution

Statistik	Siswa X AK 1	Siswa X AK 2
	(Media <i>Powerpoint</i> )	(Media Pembelajaran <i>E-learning</i> Berbasis Edmodo)
Nilai Terendah	75	83
Nilai Tertinggi	90	98
Total nilai	2.949	3.323
Rata-rata	81,92	92,31
Median	82	93
Modus	80	93
Standar Deviasi	3,40	3,07
Varians	11,51	9,42

Source: Data processed by researchers in 2017

The results of the research in the experimental class are shown in the following table:

Table IV.2.  
Frequency Distribution of Class Student Learning Outcomes X AK 2  
(E-learning Media Based on Edmodo)

Distribusi Frekuensi						
No	Kelas Interval	Batas Bawah	Batas Atas	Titik Tengah	Frekuensi Absolut	Frekuensi relatif
1	83-85	82,5	85,5	84	1	3%
2	86-88	85,5	88,5	87	2	6%
3	89-91	88,5	91,5	90	9	25%
4	92-94	91,5	94,5	93	17	47%
5	95-97	94,5	97,5	96	6	17%
6	98-100	97,5	100,5	99	1	3%
Total					36	100%

Source: Data processed by researchers in 2017

The highest frequency is 17 at the apparent limit of 92-94. While the lowest frequency is 1 at the real limits of 83-85 and 98-100. From the frequency distribution, a

histogram of the learning outcomes of class X AK 2 students was also made using Edmodo-based e-learning media as follows::



Figure IV.1  
Histogram Graph of Variable Y  
( Learning outcomes Edmodo-Based E-learning Media)

The results of the study in the control class are shown in the following table:

Table IV.3.

Frequency Distribution of Student Learning Outcomes Class X AK 1  
(Powerpoint Learning Media)

Distribusi Frekuensi						
No	Kelas Interval	Batas Bawah	Batas Atas	Titik Tengah	Frekuensi Absolut	Frekuensi Relatif
1	75-77	74,5	77,5	76	3	8%
2	78-80	77,5	80,5	77	10	28%
3	81-83	80,5	83,5	82	13	36%
4	84-86	83,5	86,5	85	7	19%
5	87-89	86,5	89,5	88	2	6%
6	90-92	89,5	92,5	91	1	3%
					36	100%

Source: Data processed by researchers in 2017

The highest frequency is 13 at the apparent limit of 81-83. While the lowest frequency is 1 at the real limit of 90-92 After the frequency distribution table is made above, then histograms and polygons are made on the learning outcomes of class X AK 1 students using the following simple learning media concept map:

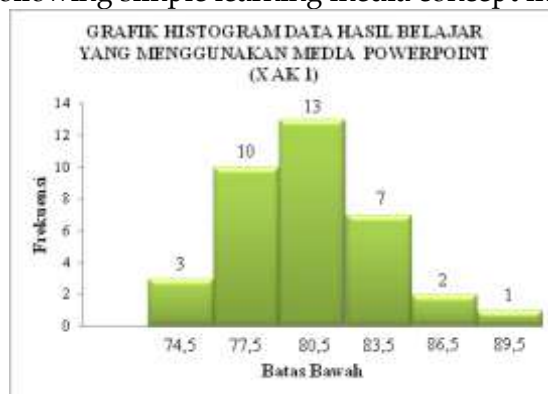


Figure IV.2  
Histogram Graph of Variable Y  
( Learning outcomes Powerpoint Media)

B. Inductive Analysis

1. Test Requirements Analysis

a. Normality test

The normality test using the Liliforse test has a significant level  $\alpha = 5\% = 0.05$ . In the experimental class students (X AK 2) as many as 36 people obtained  $Lo = 0.113$  and  $Ltable = 0.147$ . The calculation results show that the price of  $Lo < Lt$  is  $0.113 < 0.147$ . The results of these calculations prove that the experimental class sample is normally distributed. In control class students (X AK 1),  $Lo = 0.101$  and  $Ltable = 0.147$ . The calculation results show that the  $Lo$  price is smaller than the  $L$  table value:  $Lo < Lt$  i.e.  $0.101 < 0.147$ , which proves that the control class student sample is normally distributed.

b. Homogeneity Test

This homogeneity test was carried out using the F-test. The F test was carried out at a significant level of 0.05, it was obtained that  $Fcount < Ftable$  i.e. then  $1.22 < 1.76$ . It is concluded that the data used is homogeneous.

2. Hypothesis testing

In the t-test, the value of the t-count ratio is 13.79. The price of the ttable ratio with a significance level of 0.05 is 1.666. It is found that the price of  $tcount > ttable$  is  $13.79 > 1.666$  so that the null hypothesis ( $H_0$ ) is rejected and  $H_a$  is accepted. Thus, it can be concluded that there are the effect of student learning outcomes using Edmodo-based e-learning media with students using powerpoint media.

In this study, the study wanted to determine the effect of Edmodo-based e-learning media on student learning outcomes in the subject of Banking Fundamentals, especially on Islamic Bank material.

The learning outcomes obtained in the experimental class were taken from scores using a written test manually and from scores during the process of using Edmodo-based e-learning media. It aims to interpret more significant results from the process of using Edmodo both inside and outside the classroom.

The material used in the experimental class and control class is the same, namely Islamic Banks. In this study, the material provided is Islamic Bank which is expected to be able to represent all the material in the subject of Banking Fundamentals. This is because of the subjects.

After comparing the two classes, it turns out that the learning outcomes of students who use Edmodo-based e-learning media are much higher than those of students who do not use Edmodo-based e-learning media. This proves that the use of Edmodo-based e-learning learning media as an alternative media that can be used in learning to help students understand more interesting and varied lessons.

After the learning outcomes data were processed, it was found that the average of the experimental class was 92.31 and the control class was 81.92 with the difference in the average value between the experimental class and the control class that was 10.39. From the results of data processing, the average learning outcomes in the subjects of Banking Basics as a whole in class X Accounting 1 and X Accounting 2 are 87.11. So in the control class students who scored above or equal to the average were 2 students, while in the experimental class students who got scores above or equal to the average were 33 students, which is described as follows:



Figure IV.3

#### Pie Chart of Learning Outcome Data for Experiment Class and Control Class

Based on the pie chart above, the control class for student learning outcomes is above or equal to an average of only 6% or equivalent to 2 students. Meanwhile, in the experimental class, student learning outcomes are above or equal to an average of 94% or equivalent to 33 students. This proves that the use of Edmodo-based e-learning media has a very strong influence on student learning outcomes, where learning outcomes in the experimental class are higher than the control class.

Based on the hypothesis that has been proposed in this study, it can be concluded that the hypothesis is accepted because it has referred to positive and significant results and is supported by previous studies that have similar final results.

Ari Sudibyo Wasis' research entitled "The Use of Physics Learning Media With E-learning Based on Edmodo Blog Education on Optical Instrument Materials to Improve Motivational Responses and Student Learning Outcomes at SMP Negeri 4 Surabaya." The results showed that the pretest score was 39.76 while after using Edmodo the student learning outcomes obtained were 76.05. This shows that the use of Edmodo media has an influence on student learning outcomes. Because after using Edmodo, student learning outcomes increase. Based on Ahmad Zanin Nu'man's research entitled "Effectiveness of Application of E-learning Edmodo Model in Islamic Religious Education Learning on Student Learning Outcomes." (Ahmad Zanin Nu'Man, 2014). The average test scores in the experimental class for the pretest and posttest were 68.12 and 85.76. While the control class for the pretest and posttest were 67.80 and 81.30. The results showed that the value of  $t_{count} : 0.999$  was greater than  $t_{table} : 0.699$ . This means that there is an effectiveness of implementing Edmodo e-learning on student learning outcomes.

Anisah Rohmatillah and Bety Nur Achadiyah's research entitled The Effect of Using Edmodo-Based Learning Media on the Learning Outcomes of Class X Students of SMK Negeri 1 Boyolangu (Anisah Rohmatillah and Bety Nur Achadiyah, 2014). The results showed that the significance value obtained was  $0.005 < 0.05$ . This indicates that the hypothesis is that there are differences in the learning outcomes of experimental class students who apply Edmodo-based learning media and those who do not apply Edmodo-based learning media. From the research of Vardana Nur Rahmaningrum and IGP Asto Buditjahjanto with the title "The Effect of Edmodo-Based E-learning Media on the Subject of Application of Electronic Circuits to Improve Student Learning Outcomes of Class X Audio Video Engineering at SMK Negeri 3 Surabaya." (Verdana Nur Rahmaningrum and IGP Asto Buditjahjanto, 2016). The results showed that the  $t$  value was 3.636 and the significance value was 0.001. The significance value of 0.001 is smaller than the significance level of 5% so that there is a significant difference in student learning outcomes using Edmodo-based e-learning media and students who

are given a direct learning model significantly. Based on research by Bitu Bahrami Shams-Abadi, Sayyed Dariush Ahmadi, and Ali Gholami Mehrdad entitled "The Effect Of Edmodo On EFL Learners' Writing Performance." (Bitu Bahrami Shams-Abadi, 2017). The results showed that the average in the experimental class was 24.43 and the control class was 16.58. It means that the class that uses Edmodo obtains higher learning outcomes. In the Maan-Whitney test, it was asked that there were differences in performance in the experimental and control classes, namely  $U = 121,500$ ,  $Z = -2,221$ ,  $P$  less than 0.026. So there are differences in classes that use Edmodo and do not use Edmodo.

Arista Erviana and Andi Kristanto's research entitled "Utilization of Edmodo Applications as Learning Media in Productive Subjects Assembling Personal Computers to Improve Learning Outcomes of Class X Students of Multimedia Department in Vocational High Schools." (Arista Erviana and Andi Kristanto, 2015). The results showed that at SMK Antarctica 2 Sidoarjo with a significant level of 5%,  $t_{count}$  was greater than  $t_{table}$  with a ratio of  $1.315 > 0.339$ . The results of the t-test calculation at SMK Wijaya Sidoarjo with a significant level of 5% obtained  $t_{count}$  greater than  $t_{table}$  with a ratio of  $1.207 > 0.482$ . And the results of the t-test calculation at SMK YPM 8 Sidoarjo with a significant level of 5% obtained  $t_{count}$  greater than  $t_{table}$  with a ratio of  $1.750 > 0.344$ . So, it can be concluded that there is an effect of Edmodo-based e-learning media on student learning outcomes. From research by Gede Suriadhi, I Dewa Kade Tastra and Igd. Wayan Suwatra entitled "Development of Edmodo-Based E-learning on Science Subjects for Class VIII at SMP Negeri 2 Singaraja." (Gede Suriadhi, 2014). The results showed that the average pretest score was 58.26 and the posttest average was 89.03. After manual calculation, the  $t_{count}$  result is 22.87. Then the  $t_{count}$  value is compared with the  $t$  price in the table with  $db = n_1 + n_2 - 2 = 39 + 39 - 2 = 76$ . The  $t_{table}$  value for  $db$  72 and with a significance level of 5% ( $\alpha = 0.05$ ) is 1.992. Thus, the value of  $t_{count}$  is greater than the value of  $t_{table}$  so that  $H_0$  is rejected and  $H_1$  is accepted. This means, there is a significant difference in students' science learning outcomes between before and after using Edmodo-based e-learning.

According to Nash "there is a renewed emphasis on learning outcomes and institutional vision, as well as illustrating effective leadership strategies that can enable an institution to make the necessary changes to its target archives and provide a high quality educational experience for students taking courses at a distance via e-learning and mobile. learning" (Nicole Buzetto,, 2007). Benneth in a book entitled Advance Principles Of Effective E-learning reveals that "Web-based learning to be used in conjunction with sound pedagogy, learning outcomes, and content can support traditional, authentic, and alternative protocol learning and assessment. According to Randy Garrison "to facilitate high-level learning outcomes, creativity is needed to understand the elements that are integrated using e-learning." Andrews Caroline in her book entitled The SAGE Handbook Of E-learning Research reveals that "E-learning practice uses tools to produce learning outcomes in students".

Based on the results of this study, it can be seen that the maximum use of Edmodo-based e-learning media will improve student learning outcomes. Vice versa, the less use of Edmodo-based e-learning media will result in less than optimal student learning outcomes. But keep in mind that learning media is not the only factor that can affect student learning outcomes. There are still other factors such as interest in learning, learning motivation, learning resources and teacher competence.

The advantage of this research compared to previous research is that the Edmodo-based e-learning media variable is a new medium in education circles. So as to be able to provide information and create an attraction for students and teachers to use it as a support for the learning process. In addition, this research took place in Jakarta, which indicates that problems in the city center are still very complex. All forms of education and training that have been carried out by teachers in Jakarta are still not fully implemented in the classroom. This is what causes student learning outcomes to be strongly influenced by the independent variable studied, namely the Edmodo-based e-learning learning media. If in the city center there are still problems like this, most likely in other cities outside Jakarta also experience the same thing. This research can be used as a reference to improve the ability of teachers to use Edmodo-based e-learning media used by teachers to be more creative in teaching and using teaching tools. Another advantage is that this research is used for theoretical subjects with a lot of material, so that it can help the ongoing learning process. Methodologically, this research has followed the applicable procedures. However, the researcher realizes that there are still weaknesses that cause the accuracy of this research to be not completely absolute. The limitations experienced by researchers in conducting this research are:

1. Limitations on student learning outcomes data where student learning outcomes data are only taken from students' daily assignments and tests that do not fully describe students' abilities
2. The limitations of the research variables, the variables studied were only two variables, namely the independent variable, namely the Edmodo-based e-learning learning media which had an effect on the dependent variable, namely learning outcomes. While the dependent variable, namely learning outcomes, is not always influenced by the use of Edmodo-based e-learning learning media
3. The limitation of data collection is that data collection is carried out for the Edmodo-based e-learning media variable, namely by using tests, so there may still be deficiencies in controlling respondents' answers that do not match the answers.

## CONCLUSION

Based on the research that has been done and data processing, the following conclusions are obtained Based on the results of research conducted at SMK Negeri 42 Jakarta in class X AK 2 as the experimental class and class X AK 1 as the control class, it shows that the use of Edmodo-based e-learning learning media shows higher learning outcomes compared to Powerpoint learning media. There is a positive and significant effect on the learning outcomes of class X AK 2 students who use Edmodo-based e-learning learning media. Based on the results of hypothesis testing, there are differences in student learning outcomes who apply Edmodo-based e-learning learning media with Powerpoint learning media. This research hypothesis is accepted because of several supporting factors, including the advantages of Edmodo-based e-learning media which provide convenience and effectiveness in learning. The results of this study show that student learning outcomes in the subject of Banking Fundamentals, especially Islamic Bank material by applying Edmodo-based e-learning learning media, are higher than students using Powerpoint media. This confirms that the use of Edmodo-based e-learning learning media is a supporting factor and as an alternative media that can be used to improve student learning outcomes.

The suggestions put forward by the researchers are this study provides information that the Edmodo-based e-learning media has an effect on student learning outcomes. However, there are still many other factors that influence student learning

outcomes such as interest in learning, learning motivation, learning resources and teacher competence. Therefore, it is hoped that in future research to find out other factors that affect student learning outcomes so that the research obtains a comprehensive picture. For teachers, it is hoped that they will try to optimize the use of Edmodo-based e-learning media so that students get better learning outcomes. Teachers in addition to providing subject matter, teachers must also be able to attract the attention of students by using learning media. The more interesting the learning media used, the greater the students' desire to participate in the learning process. Teachers must also be able to place students in conditions where students can explore the knowledge gained in school to be applied to the real world. When the teacher cannot be present in class, learning can continue using online media, namely Edmodo-based e-learning learning media. In this era of globalization, everyone, even students, For further researchers, this study provides information that the use of Edmodo-based e-learning media affects student learning outcomes. Therefore, it is hoped that in future research, e-learning media can be used other than Edmodo-based such as Quipper School, Moodle, Schoology and so on. Another thing to note is that this research only uses Islamic banking material, so it is hoped that further research will be able to apply all the material in the Banking Basics subject in order to provide research results that are comprehensively and significantly described.

#### ACKNOWLEDGMENT

We express our gratitude and appreciation for the support that has been given by Universitas Negeri Jakarta, Indonesia.

#### AUTHOR CONTRIBUTION STATEMENT

The research had done by the researchers. They finished processing the finding, evaluation of research, and finishing review process

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