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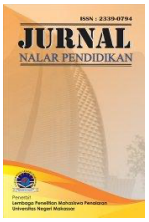

# PENGARUH E-LEARNING (SYAM-OK) SELAMA PANDEMI TERHADAP HASIL BELAJAR BAHASA INGGRIS MAHASISWA JURUSAN PENDIDIKAN TEKNIK ELEKTRONIKA UNIVERSITAS NEGERI MAKASSAR

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**Abstrak**

Pandemi *COVID*-19 mewabah di permulaan tahun 2020 telah berdampak pada semua industri, terutama sektor pendidikan. Pemerintah mengeluarkan keputusan yang mengharuskan peserta didik belajar dari rumah dan meniadakan proses belajar mengajar secara tatap muka. Strategi pembelajaran jarak jauh atau online menjadi jalan keluar supaya proses pembelajaran tetap berjalan dengan metode pembelajaran *e-learning*. Tujuan penelitian adalah untuk mengetahui pengaruh pembelajaran *e-learning* (SYAM-OK) selama pandemi terhadap nilai hasil belajar mata kuliah Bahasa Inggris pada Jurusan Pendidikan Teknik Elektronika Fakultas Teknik Universitas Negeri Makassar. Populasi penelitian ini adalah mahasiswa Jurusan Pendidikan Teknik Elektronika Fakultas Teknik Universitas Negeri Makassar angkatan 2020 berjumlah 125 orang yang terdiri dari Program Studi S1, D4 dan Vokasional Mektronika. Teknik pengambilan sampel secara *purpossive sampling* yaitu mahasiswa yang memprogramkan mata kuliah bahasa Inggris semester genap sebanyak 85 orang. Jenis penelitian yang dipergunakan adalah *ex-post facto* dengan metode deskriptif kuantitatif. Kesimpulan penelitian ini adalah terdapat pengaruh pembelajaran *e-learning* (SYAM-OK) sebesar 0,785 terhadap nilai hasil belajar dengan persamaan regresinya $y = 14{,}888 + 0{,}812x$. Nilai korelasi ini menujukkan hubungan yang kuat antara kedua variabel. Nilai f hitung = 133,560 dan dari f tabel ($df1$=1; $df2$=83) sebesar 3.956. Dari hasil analisis korelasi regresi menunjukkan ada 61,7% pengaruh variabel pembelajaran *e-learning* (SYAM-OK) terhadap nilai hasil belajar dan 38,3% dipengaruhi oleh faktor lain.

**Kata kunci**: *e-learning*, SYAM-OK, nilai hasil belajar

# THE IMPACT OF E-LEARNING WITH (SYAM-OK) DURING PANDEMIC ON ENGLISH LEARNING RESULTS OF STUDENTS AT ELECTRONIC ENGINEERING EDUCATION DEPARTMENT OF MAKASSAR STATE UNIVERSITY

***Abstract***

*The COVID-19 pandemic, which began in early 2020, had an impact on all industries, especially education. The government issued an order requiring students to study at home and thus eliminating face-to-face learning. Distance learning or online is a good solution to continue the learning process. This type of learning is referred to as e-learning. The research goal was to see how e-learning with (SYAM-OK) affected the value of learning for English courses at Makassar State University Department of Electronic Engineering Education, Faculty of Engineering. This population study consists of 125 students from the Department of Electronic Engineering Education, Faculty of Engineering, Makassar State University, who are enrolled in the S1, D4, and Vocational Mechatronics Study Programs. The sampling technique was purposive sampling, namely 85 students who programmed even semester English courses. Ex-post facto research with a quantitative descriptive method was used. According to the regression equation y = 14.888 + 0.812x, there is a 0.785 effect of e-learning with (SYAM-OK) on the value of learning results. This correlation value indicates that the two variables have a strong relationship. The calculated f value is 133.560, and the f table value is 3.956 (df1=1; df2=83). The regression correlation analysis revealed that 61.7 % of the influence of the e-learning variable (SYAM-OK) on the value of learning outcomes was influenced by other factors, while 38.3% was influenced by other factors.*

***Keywords**: e-learning; SYAM-OK; the result of study*

## INTRODUCTION

The COVID-19 pandemic, which began in early 2020, had an impact on all industries, particularly education. Coronavirus disease (COVID-19) was declared a pandemic by WHO in early March 2020. People all over the world have been affected by the rapid spread of the COVID-19 virus [1]. WHO, as the world organization in charge of global public health issues, has strongly recommended that all countries implement a health protocol. The health protocol is tailored to unique circumstances each country, including the extent of spread and impact. These policies include social isolation, local lockdowns or one-country lockdowns, herd immunity, and other measures aimed at halting the spread of the COVID-19 virus.

The Indonesian government is dealing with the COVID-19 pandemic by focusing on both the health and economic aspects. The health protocol changes are 3 effective countermeasures which are wearing a mask, washing hands, maintaining distance/social distancing for community activities and 3T (Testing, Tracking, and Treatment) for government activities. The government believes that by restricting community interaction, it will be possible to prevent a larger and faster spread. This policy is also used in education. In accordance with this, the Minister of Education and Culture issued Circular Letter Number 4 on March 24, 2020, regarding the Implementation of Educational Policies in the Emergency Period for the Spread of Coronavirus Disease (COVID-19). The government has instituted a policy of immediately shutting down and suspending all educational activities. The government made the decision to allow students to begin learning from home and to phase out face-to-face instruction and learning. Distance learning and online strategies are two options for continuing the learning process. E-learning is the chosen teaching method.

E-learning is classified as a teaching and learning process that is designed to use electronics/computers in a network to support the teaching and learning process [2]. The use of e-learning is expected to improve the teaching and learning process wherever and whenever it occurs [3].

E-learning can be described in multiple ways: the use of internet technology to send and receive solutions in order to increase knowledge and skills[4], an education system that uses electronic software to support the learning process using computer networks and internet media [5], and the delivery of teaching materials via the internet, intranet, or other computer network media [6]; Learning and teaching methods based on electronic circuits (LAN, WAN, and others) that include indirect interaction and guidance; asynchronous learning activities utilizing computer electronic devices to facilitate obtaining learning materials based on their needs; is an educational system or concept centered on information technology in the teaching and learning process [7]; The process of distance learning that combines the principles of learning with technology[8]; not as a replacement for education, but only as a assistance to education; teaching and learning system utilizing learning facilities without direct face-to-face contact between lecturers and students [9].

E-learning is networked in such a way that if an error occurs, it can be quickly corrected, data can be saved and re-emerged, and data in the form of learning and information can be easily distributed or shared [4]. E-learning has the characteristics of utilizing electronic technology services, utilizing computer dependability, storing teaching materials independently in the computer (self-learning materials) in order to facilitate the access process for lecturers and students regarding unlimited places and times and all available on computers such as schedules, curriculum, administration and learning outcomes, and willingness to learn [10].

Learning online system is a learning process that takes place online using internet network facilities, without direct face-to-face contact between lecturers and students. Teaching and learning activities continue to operate even from home. A personal computer (PC), laptop, or smartphone connected to an internet network can be used in the teaching and learning process. Learning can also use social media applications as media to support the learning process. Students can access learning materials and activities in cyberspace.

There are two methods for accessing e-learning which are synchronous and asynchronous. Synchronous refers to real-time or live communication via applications such as Zoom, Google Meet, and others. On-line interaction between lecturers and students is referred to as a virtual classroom. Whereas Asynchronous refers to not currently happening at the very same moment. Students receive access to learning resources at a different time than the lecturer. Students have much more source material to them in the form of readings, videos, tests, quizzes, and assignment collection. Asynchronous training is becoming more popular because it can reduce costs and overcome problems with network infrastructure. And it is easier to understand and memorize because students can access learning materials without being limited by time or location.

Online learning has many advantages, including: (a) establishing efficient communication and discussion among both lecturers and students, (b) fellow students can discuss and interact without the involvement of a lecturer, (c) effective interaction between students, lecturers, and their families, (d) being a facility for presenting assignments, quizzes, and exams, (e) lecturers could also present various forms of material such as images and videos and students can download those, and (f) making it easier for lecturers to assign questions at any time and in any location, as well as allowing students to learn at any time and in any location [11]. The advantages of e-learning include: assisting the learning process to increase student intake of the material provided; enhancing the amount of student activity; increasing students learning performance independently; increasing teachers ability with the existence of training courses; improvement in material quality as a result of increased insight and ways of thinking; and various different appearance of the material and its presentation [12].

E-learning also has advantages such as interactivity, efficiency, flexibility, and a wide range of media visualization [13]; utilizing multimedia facilities in the forms of images, text, animation, audio, and video; acceptable in terms of price because it does not require infrastructure; and direct material to the subject [14]. While the disadvantage is that it requires additional computer equipment facilities [15] and [10], lack of social interaction between lecturers and students, occasionally disregarding academic or social aspects so that commercial aspects are prioritized; requires additional skills with the use of ICT for both lecturers and students; and can cause frustration for students who cannot access images, graphics, and videos due to limited equipment; The quality and accuracy of the guidelines vary from time to time, creating confusion and resulting in the features being misunderstood.

Learning Management System (LMS) is a network-based software application that facilitates electronic learning programs and training. A good LMS has the following characteristics: (a) the availability of self-service and self-guided services, (b) the ability to deliver content for the learning activities quickly, efficiently, and effectively, (c) the ability to actualize training on a web-based platform, (d) standardized and flexible, and (e) content personalization and can be reuseable. Since 2012, Makassar State University has used the LMS application. The application now more refined and integrated into all of the activities of lecturers and students. Its optimization is began in the even semester of 2020-2021 since the pandemic, as marked by the Rector of Makassar State University release of Syam-OK LMS [16]-[17]. The purpose of the research was to determine the impact of e-learning using (SYAM-OK) during the COVID-19 pandemic on the overall result of learning English courses for students at Makassar State University, Department of Electronic Engineering Education, Faculty of Engineering.

## METHOD

Ex-post facto, with a quantitative descriptive method, is utilized in this research. A research in which the variables have occurred prior to the research being conducted. Data analysis is a quantitative method that includes data collection, interpretation, and results. The research population consisted of 125 students from the Department of Electronic Engineering Education, Faculty of Engineering, Makassar State University, from the S1, D4, and Vocational Mechatronics Study Programs. Purposive sampling was used, with 46 students from the D4 study program and 39 from the Vocational Mechatronics program having

participated. Because only D4 study programs and vocational mechatronics study programs offer English courses in the even semester of the 2020-2021 academic year. The independent variable of the research is e-learning using (SYAM-OK), and the data collection method is a questionnaire distributed to all respondents via a Google form. The learning result of English course is the dependent variable. The data for the learning result of English course variable is derived from the existing score.

Before being administered to respondents, the instrument was thoroughly examined for item validity in order to determine the level of reliability of each item in the instrument. Following that, the instruments consistency (reliability) was evaluated [18]-[19]. The instrument scale is ordinal then transformation to an interval scale must first be completed using succesive interval method (MSI) [20]. Furthermore, descriptive and inferential statistics were used to analyze the data. Simple linear regression, ANOVA, and the t-test were used to evaluate assumptions and hypotheses [20][21][22].

**RESULTS AND DISCUSSION**

Based on the results of the descriptive statistics analysis, the following information was acquired: Based on the information in the table 1, it is determined that:

Table 1. Statistic Result

| | | *e-learning* | Result data |
|---|---|---|---|
| N | Valid | 84 | 84 |
| | Missing | 0 | 0 |
| Mean | | 87,7529 | 86,1412 |
| Median | | 90,0000 | 89,0000 |
| Mode | | 91,00 | 90,00 |
| Std. Deviation | | 6,54637 | 6,76854 |
| Variance | | 42,855 | 45,813 |
| Skewness | | -1,516 | -,739 |
| Std. Error of Skewness | | ,261 | ,261 |
| Kurtosis | | 1,716 | -,021 |
| Std. Error of Kurtosis | | ,517 | ,517 |
| Range | | 28,00 | 29,00 |
| Minimum | | 66,00 | 67,00 |
| Maximum | | 94,00 | 96,00 |

1. E-learning data. The maximum score is 94, and the minimum score is 66, for a total score range of 28. The mode value is 91, indicating that the respondents dominant score is 91. The mode value is higher than the average value of 87.7529. The median value of 90 is also higher than the average value, indicating that more than 50% of the respondents scored higher than the average. This result is further supported by the skewness value of -1.516 (negative), which indicates that large data outnumbers small data. The variance and standard deviation of the data are also quite large, and the skewness and kurtosis values are in the range of -3.00 to +3.00, indicating that the sample data obtained are quite diverse and within normal limits.
2. Learning result data. The maximum score is 96, and the minimum score is 67, for a total score range of 29. The mode value is 90, indicating that the respondents dominant score is 90. The mode value is higher than the average value of 86.1412. The median value of 89 is also higher than the average value, indicating that more than 50% of the respondents scored higher than the average. This result is further supported by the skewness value of -0.739 (negative), which indicates that large data outnumbers small data. The variance and standard deviation of the data are also quite large, and the skewness and kurtosis values are in the range of -3.00 to +3.00, indicating that the sample data obtained are quite diverse and within normal limits.

Figure 1 shows the normality test on the data of e-learning with (SYAM-OK) on the learning result course. The linearity test is used to ensure that the model specifications are correct. Linear regression analysis cannot be performed if the linearity test is not fulfill. The linearity test assumes whether or not the data is certain according to the linear line.

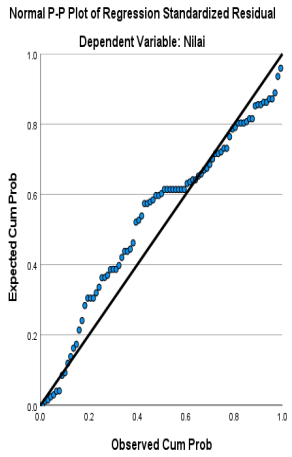


Figure 1. Normality Test

A functional or causal relation exists between one independent variable and one dependent variable in a simple linear regression analysis [23].

Table 2. Coefficient Liniarity

ANOVA Table

| | | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|---|
| Result* *e-learning* | Between Groups | (Combined) | 2682.719 | 23 | 116.640 | 6.104 | <.001 |
| | | Linearity | 2373.380 | 1 | 2373.380 | 124.209 | <.001 |
| | | Deviation from Linearity | 309.338 | 22 | 14.061 | .736 | .785 |
| | Within Groups | | 1165.587 | 61 | 19.108 | | |
| | Total | | 3848.306 | 84 | | | |

The value of the linearity coefficient can be seen in table 2. The sig value in the row Deviation from Linearity is 0.785. This value is significantly higher than the specified significant value (α) which is 0.785>0.05. Indicates that the relationship between the e-learning variable (SYAM-OK) and the learning result variable is linear and fulfills the requirements for linearity

Table 3. Regression Analysis

Coefficients[a]

| Model | | Unstandardized Coefficients B | Std. Error | Standardized Coefficients Beta | t | Sig. |
|---|---|---|---|---|---|---|
| 1 | (Constant) | 14,888 | 6,182 | | 2,408 | ,018 |
| | *e-learning* | ,812 | ,070 | ,785 | 11,557 | <,001 |

a. Dependent Variable: Result

Based on the results in table 3, the value of a = 14.888 and the value of b = 0.812. As a result, the regression equation is $y = 14{,}888 + 0{,}812x$.

Data from table 3 in column sig = 0.001 implies sig < α (0.05%), which means the model is significant. Meanwhile, the f value is 133.560, and the f table value ($df1$=1; $df2$=83) is 3.956. This shows that f table<f value, stating that the model is significant. The significance results show that e-learning with (SYAM-OK) has an effect on the value of learning result.

Table 4. ANOVA Result

ANOVA[a]

| Model | | Sum of Squares | df | Mean Square | F | Sig. |
|---|---|---|---|---|---|---|
| 1 | Regression | 2373,380 | 1 | 2373,380 | 133,560 | <,001[b] |
| | Residual | 1474,925 | 83 | 17,770 | | |
| | Total | 3848,306 | 84 | | | |

a. Dependent Variable: Result

b. Predictors: (Constant), *e-learning*

Table 4 shows the f value = 133.560 and the f table ($df1$=1; $df2$=83) is 3.956. According to the value obtained, f-value>f-table indicates that e-learning with (SYAM-OK) has a significant influence on the value of learning result.

Table 5. Regression Corelation Analysis

Model Summary

| Model | R | R Square | Adjusted Square | RStd. Error of the Estimate |
|---|---|---|---|---|
| 1 | ,785[a] | ,617 | ,612 | 4,21547 |

a. Predictors: (Constant), *e-learning*

The correlation value (table 5) which is 0.785, indicates the strength of the relationship between the two variables (independent and dependent). While the level of excellence of the regression model formed by the two variables, the coefficient of determination (R square) is 0.617. This means that e-learning with (SYAM-OK) contributes 61.7 % of the learning result, while other factors have a 38.3 percent influence.

The results of this research are consistent with the findings of Sudiantini et al [24], who found that e-learning media can influence student learning results. Similarly, Hasriadi [25] concluded that there

was a significant difference in student learning results between the group treated using e-learning and the group treated by using traditional methods. Furthermore, the results of this study are consistent with the findings of Rahmatia et al [26], who tested the impact of e-learning media. The percentage of students who can successfully complete the test questions is 78.12%. Choirunnisa research [27] also consistent with the results of this study, in which the effect of e-learning on learning outcomes is not significant, but the number of students receiving grades A, B+, and B is higher when learning with the e-learning method compared to students learning using the conventional method.

## CONCLUSION

This research uses the value of student learning outcomes as the dependent variable in the form of values that were already known prior to the study's implementation (ex-post facto). The values range from 67.00 to 96.00, with a median of 89.00 and a mean of 86.1412. The independent variable is e-learning (SYAM-OK), and the data is collected through a questionnaire. According to the results of this study, e-learning (SYAM-OK) has a 0.785 effect on the value of learning outcomes with n = 84 (number of samples) and the regression equation $y = 14{,}888 + 0{,}812x$. This correlation value indicates that the two variables have a strong relation. The calculated f value is 133.560, and the f table value is 3.956 ($df1$=1; $df2$=83). According to the results of the regression correlation analysis, there was a 61.7 percent influence of the e-learning variable (SYAM-OK) on the value of learning outcomes, with the remaining 38.3 percent influenced by other factors.

## REFERENCES

[1] G. E. H. Newsletter, “The COVID 19 Pandemic from a Global Environment Health Percpective,” 2020.

[2] D. R. Suprayogie and L. Hakim, “Pengaruh Pembelajaran E-Learning Terhadap Mutu Belajar Dengan Mutu Proses Belajar Mengajar Sebagai Variabel Intervening Mata Kuliah Perbankan Syariah,” *J. Pendidik.*, vol. 9, no. 2, pp. 24–35, 2021, doi: 10.36232/pendidikan.v9i2.889.

[3] I. W. K. Suwastika, “Pengaruh E-Learning sebagai Salah Satu Media Pembelajaran Berbasis Teknologi Informasi Terhadap Motivasi Belajar Mahasiswa,” *J. Sist. dan Inform.*, vol. 13, no. 1, pp. 1–5, 2018, [Online]. Available: https://jsi.stikom-bali.ac.id/index.php/jsi/article/view/185.

[4] M. Rosenberg & Jeffrey, *E-learning: Strategies for Delivering Knowledge in The Digital Age*. Mc Graw-Hill Professional, 2007.

[5] LearnFrame.com, *Glossary of E-learning*. 2001.

[6] E. H. Darin, *Selling E-learning*. American Society for Training and Development, 2001.

[7] M. Allen, *Michael Allen’s Guide to E-learning*. Canada: John Wiley & Sons, 2013.

[8] S. R. Chandrawati, “Pemanfaatan E-learning dalam Pembelajaran,” *J. Cakrawala Kependidikan*, vol. 2, no. 8, pp. 172–181, 2010.

[9] Ardiansyah, “Pengaruh Penerapan Metode Pembelajaran Brainstorming dan Problem Based Instruction Terhadap Aktivitas Belajar dan Pemahaman Konsep Peserta Didik,” UPI, 2013.

[10] Nursalam & Ferry Efendi, *Pendidikan dalam Keperawatan*. Jakarta: Salemba Medika, 2008.

[11] Mediawati & Veteran Bangun, “Pengaruh Daring Leraning Terhadap Hasil Belajar IPA Siswa Sekolah Dasar,” 2019.

[12] Pranoto; Alvini, *Sains dan Teknologi*. Gramedia Pustaka Utama, 2009.

[13] J. G. & Y. Y. Sujana, *Perkembangan Perpustakaan di Indonesia*. Bogor: IPB Press, 2005.

[14] S. L. Tjokro, *Presentasi yang Mencekam*

*Jakarta*. Jakarta: Elex Media Komputindo, 2009.

[15] M. L. Gavrilova, "Computational Science and Its Application," 2006.

[16] UNM Team, "Panduan Bagi Mahasiswa SYAM-OK FT UNM." 2020.

[17] "SYAM-OK UNM System and Application Management Open Knowledge Universitas Negeri Makassar," 2020.

[18] M. Said, H; Badru, B; Shahid, "Confirmatory Factor Analysis (CFa) fir testing Validity and realibity Instrument in The Study of Education," *Aust. J. Basic Appl. Sci.*, vol. 5, no. 12, pp. 1098–1103, 2011.

[19] Arifuddin; Rahyuddin & Badrullah, *Teori dan praktik metode penelitian pendidikan*. CV. Syahadah Creative Media, 2020.

[20] Badrullah; Asdar & Rahyuddin, *Metode penelitian penuntun praktis bagi siswa dan mahasiswa*. Kretakupa Print, 2016.

[21] Asdar; Badrullah & Jeranah, *Regresi, analisis jalur dan SEM: dilengkapi dengan contoh aplikasi SPSS dan AMOS*. Kretakupa Print, 2016.

[22] Asdar & Badrullah, "Method of Successive Internal in Community Reserach (Ordinal Transformation Data to Interval Data in Mathematic Education Studies)," *Int. J. Sos. Sci. Humanit. Reserach*, vol. 4, no. 2, pp. 356–363, 2016.

[23] Sugiyono, *Statistik Untuk Penelitian*. Bandung: Alfabeta, CV, 2007.

[24] N. Sudiantini, D & Dewi Shinta, "Pengaruh Meida Pembelajaran Terhadap Hasil Belajar Siswa," *Sintesa*, vol. 11, no. 1, pp. 177–186, 2018.

[25] Hasriadi, "Pengaruh E-learning Terhadap Hasil belajar Mahasiswa Pendidikan Agama Islam," *Digit. Times*, vol. 3, no. 1, pp. 59–70, 2012.

[26] M. & D. Rahmatia, M; Monawati, "Pengaruh Media E-learning Terhadapa Hasil Belajar Matematika Siswa Kelas IV SDN 20 Banda Aceh," *J. Ilm. Pendidik. Guru Sekol. Dasar FKIP Unsyiah*, vol. 2, no. 1, pp. 212–227, 2017.

[27] L. Choirunnisa, "Pengaruh Pembelajaran E-learning Kuliah Statistik Mahasiswa Tadris IAIN Walisongo," *Jurnla Phenom.*, vol. 2, pp. 7–27, 2012.