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Development of a Blended Learning Model Based on Edmodo for Internship Students in Vocational High Schools

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ABSTRACT

The purpose of this study was to develop an Edmodo-based blended learning model for street vendors in vocational high schools, analyze the feasibility of the model, and test its effectiveness. The study was conducted at SMK Muhammadiyah Sampang, Cilacap Regency, using a research and development (R&D) method based on the ADDIE model. The research design used a one-group pretest-posttest design. The development procedure included analysis, design, development, implementation, and evaluation stages. In the analysis stage, a student needs survey was conducted, while the design stage was adjusted to the learning needs. The next stage of development included validation by experts on the model and materials, and then the product was revised. Implementation was carried out on 60 students of grade XI in the Light Vehicle Engineering study program. The research results show that Edmodo-based blended learning is suitable as an alternative learning model, particularly to support internship activities. This model can be implemented according to a plan consisting of orientation, organization, investigation, analysis, and evaluation. In terms of effectiveness, student learning outcomes with Edmodo-based blended learning achieved an average of above 80, significantly different from the group not using Edmodo. Furthermore, this model can increase student motivation and learning independence. Based on these findings, the study recommends further development of the Edmodo-based blended learning model as a complement to face-to-face learning, especially in normative and adaptive subjects in vocational high schools.

Introduction

Presidential Instruction Number 9 of 2016 concerning the Revitalization of Vocational High School (SMK) Education in the context of improving the quality and competitiveness of Indonesia's

human resources directs that the Vocational School program must truly be a link and match with the needs of the job market, so that it can support the availability of the local job market, regionally and globally with standardized and certified competencies. The combination of workplace-based internships and classroom-based education is the difference between vocational education and general education Stiftung (2016). I. Discussions within the HE spaces have constantly evolved. In fact, discussion about dissemination and diffusion of academic contents in the last two have favoured the blended learning (BL) approaches. s Bennett et al (2020). Blended learning refers to the integration of face-to-face and online learning environments, and has been a hot topic in recent years Anthonysamy et al (2020).

A learning strategy that can increase student activity and simplify the teaching and learning process by utilizing information technology is blended learning Izzudin (2012). The mechanism for providing information on lesson assignments at Muhammnadiyah Sampang Vocational School is carried out by the teacher personally by providing information to one student and then distributing it to other friends. Students are asked to come to school on Saturday morning to collect assignments from the teacher concerned, if there is a delay in communication between the teacher and students so that assignments are late or not collected. Schools still use a manual system in assigning students to carry out PKL so that the lessons delivered are not effective. On the other hand, PKL activities also become ineffective because many students leave the PKL location to get assignments from teachers at school.

Sampang Muhammadiyah Vocational School implements three types of supervisors in the PKL program, namely field supervisors, report supervisors and DUDI supervisors. The field supervisor is tasked with monitoring students (monitoring) which is carried out three times in the PKL program, and handing over and attracting PKL students. After students join DUDI, the school's access to students to disseminate information is very limited. Implementation of monitoring by supervising teachers is a moment that PKL students have been waiting for, because students can get information about assignments from other teachers' subjects or other information related to student affairs. This has the effect of hampering the PKL program, while the learning process obtained by students is not effective.

Method

This research was carried out by the Muhammadiyah Sanpang Vocational School located at Jalan Raya Tugu Barat No. 24 Sampang. The time to carry out research is May – November 2019. This

research uses the research and development (R&D) method. The R&D research method is a research method used to produce certain products and test the effectiveness of these products Sugiyono (2015). A research and development (R&D) approach was employed, incorporating the ADDIE (Analysis, Design, Development, Implementation, and Evaluation) instructional design model to systematically create and refine the dictionary. In general, these types of R&D models have steps that include problem analysis, product development design, implementation, and evaluation. This model serves as a guideline in building learning systems and models that are effective, dynamic and support the performance of the program itself Warsita (2008). These five stages are considered very suitable for developing this learning because they are simple and effective in carrying out them.

Result and Discussion

1. Analysis

At this stage the researcher analyzes matters related to the development of a blended learning model which is commonly used for PKL students. The development of an Edmodo-based blended learning model which will be developed through an analysis process is very important, because the analysis results obtained are used as a reference for the development of blended learning. The following are several stages of analysis carried out by the author to carry out development:

a. Curriculum analysis and learning administration

Sampang Muhammadiyah Vocational School is a school that has used the 2013 curriculum. The 2013 curriculum recommends that teachers/educators use a learning approach that is oriented towards character and competency-based learning which requires children to be active in learning. The aim of developing the 2013 curriculum according to the Ministry of Education and Culture is (Permendikbud No. 69 of 2013 concerning the basic framework and structure of the senior high school/madrasah aliyah curriculum): the aim of the 2013 curriculum is to prepare Indonesian people to have the ability to live as individuals and citizens who are faithful, productive, creative, innovative and affective and able to contribute to the life of society, nation, state and world civilization.

It is hoped that the development of a blended learning model can be a solution for developing distance learning to create communicative and enjoyable learning. Good learning development that is suitable for use must have valid, practical and effective criteria, but the aim of this research is to determine the level of validity of developing a blended learning model as an alternative learning

solution to support the implementation of K13. Curriculum analysis is carried out by studying learning material.

1) Competency Standards, Basic Competencies (KD) which are in accordance with Indonesian History material that shown on table 1.

Table 1. Competency Standards and Basic Competencies (Kemendikbud, 2021)

3.11 Evaluating the development of the political and economic life of the Indonesian nation during the New Order period until the beginning of the Reformation, as well as the role of students and youth in political and constitutional changes in Indonesia	4.11 Processing information about the development of the political and economic life of the Indonesian nation during the New Order period up to the beginning of the Reformation, as well as the role of students and youth in political and constitutional change in Indonesia

2) Learning Objectives

After studying the competency standards and basic competencies above, the author concludes that the objectives of blended learning-based learning are: According to Garner and Oke (2015), blended learning is a learning environment designed by combining face-to-face (F2F) learning with online learning which aims to improve student learning outcomes. Students can determine attitudes about what to do, and can even correct errors that may occur when entering the Edmodo application Al-Nawaisah (2022). The learning process will occur if students are faced with problems in real world life to be solved, so Students will form new knowledge through analysis of the knowledge they have acquired.

b. Analysis of learning process needs

Analyze students' learning needs by conducting interviews with students regarding the blended learning that has been carried out so far and observing school conditions, such as wifi network facilities for the internet for students at SMK Muhammadiyah Sampang to make the learning process easier.

Data obtained from interviews and observations are as follows:

1) Students still think that so far learning has been less effective
2) The blended learning process for students requires new innovations, especially in learning models so that students are more comfortable and happy in taking part in distance learning.
3) Students are still not able to maximize blended learning because they are only required to be able to send assignments.
4) Not many teachers have innovated regarding blended learning, so distance learning is considered monotonous and unable to attract students to enjoy learning more.

5) Sampang Muhammadiyah Vocational School has adequate wifi facilities but is not yet optimally used for learning.

From the above problems in blended learning, there needs to be innovation in students, research into the development of Edmodo-based blended learning with the aim of making students able to carry out learning well and be more enthusiastic about participating in learning. Media is a learning resource component that contains instructional material in the student environment which can stimulate students to learn Ratnaningsih, et al (2020).

c. Material Analysis

After carrying out the learning analysis, the next step is to select the material that will be developed in blended learning. The material given to students is consulted with the head of the curriculum so that it is in line with the learning objectives. Indonesian history material with reference to KD/KI which is already in the learning syllabus, students can study the learning material used, such as source books and package books, modules (PBP), or from the internet about Indonesian history which is in accordance with the content of the competency syllabus. When elaborating a theory, it is necessary to pay attention to the following criteria: validity (level of suitability and testability of the material, significance (importance and meaningfulness of the material), utility (benefit or usefulness of the material), learnability (availability and suitability for study, and interest (attractiveness of the material) Mulyasa (2002).

d. Analysis of learning media

This analysis was carried out to find out the problems that exist in blended learning media. The blended learning media that is often used is felt to be less effective in producing better student quality. Student learning is felt to have less influence on increasing knowledge and competence in Indonesian History subjects.

2. Design

The design stage is carried out by making an initial plan that will be used in developing Edmodo-based blended learning, in the blended learning learning model by preparing the worksheets used in the form of learning. These stages are as follows:

a. Make an initial plan

This process is carried out by creating an Edmodo-based blended learning design which is used to support the development process. The blended learning used in this research is the Edmodo application to support the learning process of students who are doing PKL. The next step is to develop a blended learning development process using an Edmodo-based learning model. The design flow for blended learning media is as follows in Figure 1.

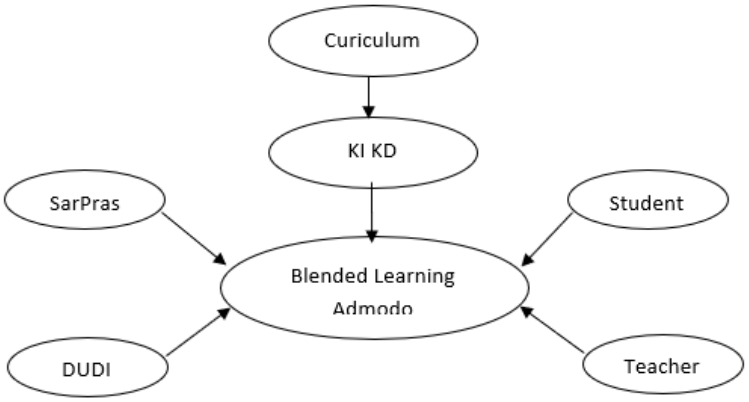

Fig 1: Initial design of blended learning

b. Make a learning practice plan

This process is carried out by preparing a blended learning plan that will be used as a guide in brave learning. Blended learning is a teaching model designed using computer and laptop media, through laptops, students individually or in groups can access learning materials for directing, controlling and managing the class well Triyanto (2009).

c. Make a grid and pretest and posttest questions

At this stage the researcher will create a grid and pretest-posttest questions which will be used for evaluation after blended learning, to find out whether or not the blended learning process using the Edmodo learning model is appropriate. The grid and pretest-posttest questions are attached.

3. Development

In this development stage, is the stage where the learning model and learning media are tested on experimental classes, so that the learning model developed can be used for learning. The stages of the development process are as follows:

a. Blended learning

In blended learning, the design is in accordance with the learning model that was developed to be more innovative, namely from the initial blended learning which only required students to only be able to listen, now it is made so that students are more creative and can use Edmodo-based blended learning applications in learning.

At this stage blended learning is developed according to the plan in Figure 1, the first step is to pay attention to curriculum aspects, namely the adjustment between KI and KD which will be used

to create learning on Edmodo. The next step is to pay attention to the existing infrastructure at the research site including the equipment that will be used, such as: laptop or cellphone equipment, Edmodo usage guidebooks, and other equipment that supports blended learning practice.

The next step is to pay attention to aspects of teachers and students, just as teachers organize the learning process so that it is easier for students to understand, the teacher creates blended learning media that is synchronized with the subjects prepared by the teacher for students.

b. Expert Validation

Expert validation was carried out to provide input on the development of blended learning in Edmodo learning. At this stage, the researchers consulted with a network engineering expert at SMK Muhammadiyah Sampang. The validation input results are as follows:

1. Learning preparation: before the learning process the teacher explains the RPP in accordance with the KI/KD and for the administration of learning completeness.
2. Learning process: the teacher makes instructions for implementing learning, the learning process refers to the curriculum and also refers to the KKNI.
3. Blended learning which must be the result of the use process in accordance with the Edmodo learning model: 1) learning process; 2) the method used; 3) curriculum alignment; 4) classroom conditioning and learning is said to be effective if the results of using blended learning have developed and there has been an increase in students' knowledge and competence.

c. Practitioner Validation

Validation is intended to determine the suitability of experts, namely media experts. Based on validation by experts, data is obtained about the strengths and weaknesses of blended marketing, so that in validation a revision stage is obtained from media experts. The revision is then corrected according to the correction from the validator.

The media expert consulted in this study was the Head of Curriculum at SMK Muhammadiyah Sampang.The development of blended learning is carried out based on aspects including 1) readiness for learning, 2) the learning process using Edmodo, 3) the results of the process of using blended learning. This aspect was developed into a statement in the product assessment of 20 numbers which were tested on three expert validators, namely two validators in the field of education, and one validator from practitioners in the network engineering business world.

Blended laryngeal testing using the Edmodo learning model was carried out at SMK Muhammadiyah Sampang. During the development stage, product trials were carried out in the

form of validity tests on material experts. Testing is carried out by material expert assessment of product aspects that have been prepared using a Likert scale assessment with 5 alternative answers, namely: score 1 = invalid; score 2 = less valid; score 3 = quite valid; score 4= valid; and score 5 = very valid.

Expert validation consisting of one practitioner from the computer network business world, two teachers at SMK Muhammadiyah Sampang. Based on the table 2 to 5, it is known that the results of the validation of the use of the blended learning model based on Edmodo are viewed from five assessment aspects, namely 1) readiness in learning, 2) the learning process, 3) the results of the process of using the blended learning model. The results of the process of using the blended larning learning model based on the Edmodo obtained an average value of The average from the first validator (V1) was 4.45 with an achievement percentage of 88.9% which was in the valid category, then from the second validator (V2) an average score was obtained of 4.0 with an achievement percentage of 80.0% with the valid category, and from the third validator (V3) an average score of 4.3 was obtained with a percentage capability of 80.6% in the valid category. The average score of the third validator was 4.25 with an achievement percentage of 80.5% in the valid category.

4. Implementation

The implementation of the learning was carried out in accordance with the plan that the researcher had made, before it was implemented the researcher distributed pretest questions to the experimental class and control class, after taking the pretest results then the application of blended learning in learning was applied to actual learning conditions, namely being tested in class. experiment XI TKR 1 and for the control class class XI TKR 2 using blended learning at SMK Muhammadiyah Sampang.

In this trial, the treatment class was given learning according to the material that had been developed, while the control class was given blended learning which is usually used in learning. After the blended learning had been implemented, the researcher then distributed posttest questions to the experimental class and control class, after the results were taken, an evaluation was carried out. The researcher conducted an initial test (pretest), namely by giving multiple choice questions about Indonesian history material to the research subjects, namely students in control class XI TKR 2 and experimental class XI TKR 1 SMK Muhammadiyah Sampang, each class numbering 30 students.

Activities at this first meeting were held on Tuesday 17 May 2021. The recapitulation of research pretest scores can be seen in the Table 2.

Table 2. Recapitulation of pretest scores for control class students

NO	Value	Category	Qualification	Students
1	90 – 100	A	Verry good	1
2	72 – 89	B	Good	11
3	57 – 71	C	Enough	13
4	34 – 56	D	Not enough	5
AMOUNT				30

Based on Table 2, the research results show that the students' pretest results in knowledge of Indonesian history are in the very good category (90-100) 1 student. There were 11 students who got the good category (72-89). Students who received the sufficient category (57 – 71) were 13 students. Students who received the poor category (34 – 56) were 5 students.

Activities at this first meeting were held on Tuesday 17 May 2021. The recapitulation of research pretest scores can be seen in the Table 3.

Table 3. Recapitulation of pretest scores for eksperimen class students

NO	Value	Category	Qualification	Students
1	90 – 100	A	Verry good	0
2	72 – 89	B	Good	13
3	57 – 71	C	Enough	11
4	34 – 56	D	Not enough	6
AMOUNT				30

Based on Table 4 and 5, the research results show that students' pretest results in fluency in working on Indonesian history questions are in the very good category (90-100). There were 13 students who got the good category (72-89). There were 11 students who received the sufficient category (57 – 71). Students who received the poor category (34 – 56) were 6 students.

Meeting II activities were held on Wednesday 18 May 2021 in the control class XI TKR 2 and experimental class XI TKR 1 SMK Muhammadiyah Sampang. The recapitulation of research posttest scores can be seen in the Table 4.

Table 4. Recapitulation of control class students posttest scores

NO	Value	Category	Qualification	Students
1	90 – 100	A	Verry good	7
2	72 – 89	B	Good	15
3	57 – 71	C	Enough	8
4	34 – 56	D	Not enough	0
AMOUNT				30

Based on Table 5, the research results show that the posttest results using blended learning in history learning are in the very good category (90-100) for 7 students. There were 15 students who got the good category (72-89). There were 8 students who obtained the sufficient category (57 – 71). Students who get the poor category (34 – 56) are none.

Table 5. Recapitulation of posttest scores for experimental class students

NO	Value	Category	Qualification	Students
1	90 – 100	A	Verry good	12
2	72 – 89	B	Good	13
3	57 – 71	C	Enough	6
4	34 – 56	D	Not enough	1
AMOUNT				30

Based on the results obtained, the researcher managed the data using the SPSS application with the independent sample T test to determine the significance value (p). Before carrying out the independent sample T test, the prerequisite tests were first carried out, namely the normality and homogeneity tests which can be seen in the following table:

a. Normality Test

The normality test is used to determine whether the data is normally or not normally distributed. To determine the normality of distribution, the Kolmogorov-Smirnov formula is used. Data is said to have a normal distribution if the Sig. > a (0.05). The results of the normality test calculations can be seen in the following Table 6.

Table 6. Normality Test Results

No	Test Variable	Sig.	α	Results
1	Pretest Experiment	0.652	0.05	Normal
2	Posttest Experiment	0.657	0.05	Normal
3	Pretest Control	0.123	0.05	Normal
4	Posttest Control	0.509	0.05	Normal

Based on Table 6, it can be seen that from the results of the normality test, the significance value (Sig.) for the Experimental Pretest test variable was 0.652; in the Experimental Posttest of 0.657; in the Pretest Control it was 0.123; and in the Posttest Control it was 0.509. The significance value for the four test variables is more than the significance level (a) of 5% (0.05), so that the four test variables are declared normal.

b. Homogeneity Test

The homogeneity test was carried out on data from the experimental class and from the control class with the aim of ensuring that the data from the two testing groups did not have significant differences. Homogeneity testing is carried out with the F test. Data from two test classes are declared homogeneous if they have a value of $F_{count} < F_{table}$ and Sig. > a (0.05). The homogeneity test results are as follows Table 7.

Table 7. Homogeneity Test Results

No	Tese Variable	Counted	df_1; df_2	F_{table}	Sig.	α	Results
1	Pretest	0.249	1;59	0.000	0.620	0.05	Homogen
2	Posttest	0.184	1;59	0.386	0.669	0.05	Homogen

Based on Table 7, it can be seen that from the homogeneity test results shown in the pretest, the value F_{count} (0.249) > F_{table} (0.00) and Sig. 0.620 > a (0.05) while in the posttest the value obtained was F_{count} (0.184) < F_{table} (0.386) and Sig. 0.669 > a (0.05). These results indicate that the pretest and posttest scores have significant differences and are declared homogeneous.

c. Paired sample t test

Testing of increased use of blended learning in Edmodo learning for students in the experimental group and control group was carried out using the T-test (paired sample T test) if the $T_{count} > T_{table}$ and Sig. < a (0.05). The test results are as follows Table 8.

Table 8. Test results of paired sample t test

No	Test Group	Counted	Df	T_{able}	Sig.	α	Results
1	Experiment	6.670	30	11.036	0.000	0.05	improvment
2	Control	6.220	30	9	0.000	0.05	No
				347			improvemen
							t

Based on Table 8 , it is known that from the results of the t-test, the results obtained for testing in the experimental group were the value T_{count} (6.670) < T_{table} (11.036) and Sig. (0.000) < a (0.05) which can be said that there was an increase in the application of the production-based learning model in the experimental group after being given intervention in the form of blended learning. Then in testing in the control group, the value of T_{count} (6.220) < T_{table} (9.347) and Sig. (0.000) < a (0.05) which can be said that there was no increase in the production-based learning model in the control group because the control group was not given the blended learning intervention.

The results of the research show that Edmodo-based blended learning for PKL students with this learning model has increased both in terms of knowledge and competency for students in the light vehicle engineering study program at SMK Muhammadiyah Sampang. The development of a blended learning model based on Edmodo can provide improvements in the quality and meaningfulness of learning, especially learning experiences that engage PKL students. The use of a blended learning model based on Edmodo focuses on students' knowledge and competencies. Students' knowledge and competence increased after receiving treatment.

At the end of the learning carried out by students using blended learning, students have:

At the end of the learning process carried out using blended learning, students gained better knowledge and understanding regarding the use of blended programming and digital learning platforms such as Edmodo. The combination of face-to-face and online learning enabled students to use technology more effectively in the learning process, making learning activities more flexible, interactive, and accessible at any time.

Students' learning competencies through the use of Edmodo also improved, especially in supporting distance learning without interrupting their internship or fieldwork activities. Through the platform, students were still able to access learning materials, complete assignments, participate in discussions, and communicate with teachers while carrying out their practical work activities. This condition helped maintain the continuity of learning and increased students' independence and responsibility in the learning process.

5. Evaluation

The final step of the ADDIE learning system design model is evaluation. The evaluation aims to ensure that the blended learning for students in Edmodo-based learning that is developed is truly appropriate and can be used by a wider range of schools. Evaluation of learning activities aims to find out several things, namely: students' attitudes towards learning activities as a whole, increasing student knowledge and increasing student competence.

Researchers at the evaluation stage will calculate the effectiveness of developing blended learning in students using quasi-experiments. Calculations using independent T test samples are as follows:

Testing of differences in the use of blended learning among experimental group and control group students was carried out using the T-test (independent sample T test) if the $T_{count} > T_{table}$ and Sig. < a (0.05). The test results are as follows on table 9.

Table 9. Independent Sample T Test Results

No	Test Group	Counted	df	T_{able}	Sig.	α	Results
1	Pretest	8.924	58	2591	0.000	0.05	No improvement
2	Postest	11.036	58	2.591	0.247	0.05	improvment

Based on Table 9, it is known that from the results of the independent T-test, the results obtained in the pretest were Tcount (8.924) < Ttable (2.591) and Sig. (0.000) < a (0.05) which can be said that there is no difference in students' know ledge and competence in the use of blended learning by students in the pretest testing in the two groups. Then in the posttest test, the value Tcount (11.036) < Ttable (2.591) and Sig. (0.247) > a (0.05) which can be said that there are differences in students' knowledge and competence in using blended learning among students with posttest testing in the two groups.

The test results above show differences in the understanding of blended learning in student learning in the posttest testing of the two groups. Thus, the application of blended learning to students can be said to be feasible in the Edmodo-based learning process.

So it will be known whether the use of blended learning is appropriate or not to be applied in actual Edmodo-based learning. A quasi-experimental one group pretest-posttest design was carried out to determine the effectiveness of this research.

The results of the T-test obtained from testing in the experimental group were the value Tcount (6.670) > Ttable (11.036) and Sig. (0.000) < a (0.05) which can be said that there was an increase in the application of the Edmodo-based learning model in the experimental group after being given intervention in the form of blended learning. Then in testing in the control group, the value of Tcount (6.220) < Ttable (9.347) and Sig. (0.000) < a (0.05) which means that there was no improvement in the Edmodo-based learning model in the control group after being given intervention in the form of blended learning. The results of research on the use of blended learning for students using the Edmodo learning model can be declared valid because of changes in the increasing application of the Edmodo-based learning model in the experimental group.

Conclusion

The development of the Edmodo-based blended learning model was developed based on procedures and stages that have been determined starting from the evaluation analysis stage carried out by material experts and model experts, thereby producing a product in the form of a blended learning model that has a valid, feasible and effective level. The resulting model is a pattern of learning activities that combines face-to-face learning, online learning using Edmodo social media and independent learning activities (offline). The development of the blended learning learning model obtained a level of validity and feasibility with creativity that was very feasible based on the validation results of three material experts and model experts with an average score for the material of 4.25 obtained from two aspects, namely the learning tools and the truth aspect of the content of the material presented. Thus, this material is suitable for use in this research. The results were obtained from three aspects, namely the learning device aspect, the blended learning model aspect, and the PKL implementation aspect.

The development of the blended learning model that has been developed has a level of effectiveness based on the results obtained from field trials, namely by providing a pretest and posttest. This is to compare the results of using the blended learning model that was developed. The trial was carried out at SMK Muhammadiyah Sampang in class XI TKR. Based on the test results, the pretest average was 69.23, while in the posttest activity it increased to 84.07, while the significance level was more than 0.05, so the value of the four test variables was more than that calculated using

SPSS. Students' responses to learning activities using blended learning in learning activities were mostly carried out well, the average score obtained was 84.07.

References

Adigun, O. T., Mpofu, N., & Maphalala, M. C. (2025). Fostering self-directed learning in blended learning environments: A constructivist perspective in higher education. *Higher Education Quarterly, 79*(1), e12572.

Al-Nawaisah, F. K. (2022). The effectiveness of Edmodo educational platform in developing achievement and attitude towards science subject among ninth-grade students in Jordan. *Britain International of Linguistics, Arts and Education (BIoLAE) Journal, 4*(2), 154–172.

Arikunto, S. (2010). *Prosedur penelitian: Suatu pendekatan praktik*. Rineka Cipta.

Arsyad, A. (2013). *Media pengajaran*. RajaGrafindo Persada.

Bennett, D., Knight, E., & Rowley, J. (2020). The role of hybrid learning spaces in enhancing higher education students' employability. *British Journal of Educational Technology, 51*(4), 1188–1202.

Bon, & Eschborn. (2016). *Pedoman pelaksanaan: Mengembangkan kerjasama yang efektif antar lembaga diklat kejuruan dan industri*. Kemendikbud.

Carman, J. M. (2005). *Blended learning design: Five key ingredients*. http://www.agilantlearning.com/pdf/Blended%20Learning%20Design.pdf

Daryanto. (2016). *Media pembelajaran: Peranannya sangat penting dalam mencapai tujuan pembelajaran*. Gava Media.

Diana, Z., Kumala, S. F., & Sutiah, S. (2025). R&D based Islamic religious education learning strategy: Types of models and their role. *Jurnal Wahana Pendidikan, 12*(1), 93–108.

Haryono, S. S. (2007). *Ilmu dan aplikasi pendidikan: Pendidikan disiplin ilmu*. PT Imperial Bhakti Utama.

Lebagi, D., Eisenring, M. A. A., Putri, D., & Riskayani, R. (2025). The development of trilingual picture dictionary for elementary students. *Jurnal Onoma: Pendidikan, Bahasa, dan Sastra, 11*(1), 161–167.

Muchlas. (2016). Blended learning berbasis konstruktivisme untuk mempelajari praktik di perguruan tinggi teknik. *SEMNASVOKTEK*, 61–76.

Mujib, A. (2024). Implementasi metode blended learning dalam pembelajaran Al-Qur'an dan Al-

Hadits. *Al Mujib: Jurnal Multidisipliner, 1*(1), 17–38.

Mulyasa, E. (2002). *Kurikulum berbasis kompetensi: Konsep, karakteristik, dan implementasi*. PT Remaja Rosdakarya.

Peraturan Pemerintah Republik Indonesia. (1990). *Peraturan pemerintah nomor 29 tahun 1990 tentang pendidikan menengah*.

Ratnaningsih, S., Hady, Y., Dewi, R. S., & Zuhdi, M. (2020, October). The effectiveness of using Edmodo-based e-learning in the blended learning process to increase student motivation and learning outcomes. In *2020 8th International Conference on Cyber and IT Service Management (CITSM)* (pp. 1–5). IEEE.

Ruslaini, R., Kusnanto, E., & Herliyana, E. (2024). Pengaruh model pembelajaran blended learning dan motivasi belajar terhadap hasil belajar siswa/I SMK Dewi Sartika. *Studia Ekonomika, 22*(1), 41–49.

Rusman. (2013). *Model-model pembelajaran*. RajaGrafindo Persada.

Siahaan, E. B. (2020). Students' perception of Edmodo use as a learning tool. *Journal of English Teaching, 6*(1), 12–23.

Stiftung, W. (2016). *Cooperation in action: The dual vocational training system in Germany*. Institute for Public Policy Research.

Sugiyono. (2015). *Metode penelitian pendidikan: Pendekatan kuantitatif, kualitatif, dan R&D*. Alfabeta.

Thorne, K. (2003). *Blended learning: How to integrate online and traditional learning*. Kogan Page Publishers.

Triyanto. (2009). *Mendesain model pembelajaran inovatif-progresif: Konsep, landasan, dan implementasinya pada kurikulum tingkat satuan pendidikan (KTSP)*. Kencana Prenanda Media Group.

Undang-Undang Republik Indonesia. (2003). *Undang-undang SISDIKNAS nomor 20 tahun 2003*.

Warsita, B. (2008). *Teknologi pendidikan: Landasan dan aplikasinya*. Rineka Cipta.

Wibowo, A. F. S., & Yuliana, M. E. (2024). Pemanfaatan e-learning sebagai media pembelajaran mahasiswa. *Journal of Informatics and Business, 2*(3), 374–378.