

The Development of English E-Modules Based on Multicultural and Contextual Teaching Learning Approach to Improve Student Learning Outcomes

Muchammad Arosyad¹, Mohamad Jazeri², Binti Maunah³ & Choiruddin⁴

¹ State Islamic Institute of Tulungagung, Indonesia

² State Islamic Institute of Tulungagung, Indonesia

³ State Islamic Institute of Tulungagung, Indonesia

³ State Islamic Institute of Tulungagung, Indonesia

CORRESPONDENCE: ✉ mrosyad985@gmail.com

Article Info

Article History

Received : 03-10-2021

Revised : 17-11-2021

Accepted : 20-11-2021

Keywords:

English E-Module;

Contextual Teaching

Learning;

Multicultural

Abstract

The difficulties in English learning can be caused by the lack of media innovation in the learning. This study aims to develop an English e-module using a multicultural-based contextual teaching, and learning approach for grade V at elementary school, the effectiveness, and the effect of using that media. The method used the Research and Development of the Borg and Gall model that modified by Sugiyono, until the 7th step. The research objects were 42 students in grade V-A and V-B, and the data analysis showed that (1) The design of e-module development by analyzing the needs of learning media that produced in the form of an English E-Module focuses on a contextual approach, and conveys various cultures. In addition, it also provides a place to learn while playing, a colorful display to attract the interest of students to be motivated to learn English. (2) The results of product effectiveness by media experts are 99.5% from the first media expert, and 90.5% from the second media expert. The results of the subject validation analysis by the first subject expert are 93.25% and the second subject expert is 80.5% (3) Based on the data analysis of the pre-test and post-test scores with t-test analysis, it is known that the significance value is $0.00 < 0.05$. The data above shows that there is a significant effect on the use of the English E-Module that has been developed to improve learning outcomes for grade V.

Introduction

The learning at the basic level requires an interesting subject, to improve the experience and transform knowledge. Based on the theory by Jean Peaget, in cognitive psychology, the cognitive development in children occurred in four stages, that is: (1) the sensory stage (born 1-2 years), (2) the preoperational stage (2-7 years), (3) the concrete operational stage (7-11 years), and (4) formal operational stage (11-16 years). (Wahyudin Uyu, 2013) That theory showed that elementary school age is included in the concrete operational stage because one of the characteristics is being able by them is to understand the concrete things (McLeod, 2015).

The learning can be effective if all components in a instruction process take an active and functional role, such as adequate facilities, and infrastructure, subjects supported by appropriate media and methods and professional teachers to make a comfortable atmosphere, enjoying, happy and satisfied. In the learning, teachers take a role as the facilitators whose task to facilitate students in the learning, then teachers have to create a comfortable, interesting and impressed learning atmosphere by using a number

The Development Of English E-Modules

of appropriate, creative, innovative and varied learning media. Then, the learning can run optimally and get maximum results.

A learning can be effective if the interest of learning objectives are achieved in accordance with learning achievement indicators. The effective learning emphasized that students are more active, and interactive to make the learning focuses on students and teachers act as facilitators. An effective learning not only by teaching about knowledge, but also instilling the values of what is learned, to make it reaches the stage of behavior that implemented in the life (Harahap, 2018).

English is one of the subjects in the form of text descriptions, where the basic competence is the ability to describe the subject. The students' skills in reading, and understanding learning content are needed in this learning (Wahyuni & Samad, 2020). The understanding the subject requires an appropriate way effective to make the learning both at school and at home there is a significant increase in results. Because a successful learning is greatly influenced by the quality of teachers, both skills, and abilities in choosing the right method, media, and subject in learning (Afrikani, Solihatin, & Musnir, 2020).

The teacher should consider learning subjects, media, techniques, methods as well as strategies that are appropriate for learning English. According to Clark, et al as quoted by Sudrajat, there are 7 types of basic-level students' characters, namely: 1) Elementary-level students can understand sentences, no longer words, and even have interpreted meaning quickly through intonation, gestures and facial expressions. 2) They are also able to combine words into a patterned sentence. 3) They can tell something they did or heard. 4) They able to plan activities. 5) They can argue as well as provide arguments about the contents of his thoughts to others. 6) Their imagination is very strong by using vivid imagination. 7) They use a various sentence patterns in speaking intonation through their mother tongue (Sudrajat, 2015).

The technological development, especially in the information aspect, change the perspective of the teacher in the progress of affects teaching, and learning activities, both in the preparation and implementation of using learning strategies. This technology is actually a combination of computers, and telecommunications in the development of information technology. The advances in technological development have a very large influence in the use of an teacher's tools in teaching and learning activities (Hanafy, 2014). The development of this technology is very helpful for an teacher in developing a teaching and learning activity to be more effective.

The use of learning media in schools in this research clear, because the teacher have used the media to explain or strengthen the subject but have not fully functioned properly because they are gradeical and visual. So, the students observe and see the media together which causes boredom or lack of interest of students with the subject to be delivered (Subaidi, 2016). It is necessary to develop the media that can be made more meaningful, and varied in order to attract the attention of students.

The teachers have to create something new, creative, and innovate, especially the media issues. The choosing the right learning media for students is by looking at the characteristics of students. As a teachers, we have to pay the attention to this to make the use of media really hits the students and is in accordance with the circumstances or conditions. Aznawir in his book said that the media is need that transfer the messages, and can stimulate the thoughts, feelings, and wills of the audience. It can encourage

the learning in them. The creative media will allow the students to learn better and can improve their performance in accordance with the goals to be achieved (Asnawir, 2015).

Through the observations during the English learning, the researchers found one of the problems in the English learning is the difficulty of understanding complex language, and subject. Little of students that understand and pay attention to the teacher's explanation well. The teachers need to repeat several times to make students can understand the subject being discussed. Another problem is the lack of vocabulary which causes the learning subject to be not absorbed perfectly.

The students need supporting learning modules that can facilitate students in the learning. The English module is an example of an electronic-based module. This CTL-based English E-Module makes it very easy for students to learn wherever they are, at any time without having to bother asking for guidance from teachers or parents, because this module displays a summary of subject, video explanations and evaluation questions to measure the extent their understanding.

The electronic module is equipped with information in the form of text, images, audio and video, as well as an electronic dictionary that can be viewed by the user by touching the dictionary navigation button. The electronic modules are given to students or users in a format that can be used via each student's smartphone when at home. This electronic module also equipped with instructions for use to make students can easily use it with a simple system. This module contains subjects, questions that have been adapted to grade V Core Competencies and Basic Competencies which are packaged electronically. The modules based on Contextual Teaching Learning that make it easier in improvising independent learning at home.

This module is also very important to be developed because language learning will be easier if learning is directed into contextual learning-oriented learning, to make students understand more easily. This English E-Module is also equipped with short video examples of conversations that provide an overview of how to use English in real contexts in students' lives.

The development of the English e-module also gives special attention to various multiculturalities which at the same time tries to solve the current problem that in life there are many disputes between groups or ethnicities, to make in this e-module it also provides an overview of how many or diverse ethnic cultures provide an beauty, so it is necessary to have insight into various cultures to make a coexistent life will be created which is full of mutual respect and tolerance.

Methods

Research and development is a research method used to produce certain products (Syaodih, 2008). Borg and Gall use the term Research and Development which is defined as a process or method used to validate and develop products. The development can be in the form of updating existing products to become more practical, effective, and efficient, or actually creating new products that did not exist before (Syaodih, 2007). This research will use 7 stages of proprietary research and development steps. Borg and Gall, namely research and data collection, planning, initial product format development, product

validation, revision of product validation results, small-scale field trials, and product revisions resulting from field trials.

The development procedure is an explanation of the development model that has been defined. The steps taken in the Borg and Gall development procedure include:

1. Trial Design

This activity begins with collecting data and testing the feasibility of the product by means of validation by several experts. Testing the feasibility of the product by providing a questionnaire to the validator to assess the level of validity, as well as the level of practicality of the developed product, as well as a feasibility test on the target use of the product.

2. Trial Subject

The trial subjects consisted of experts in the field of media, experts in the field of subject, and the target of using the product (grade V students at MI Tarbiyatussibyan Boyolangu Tulungagung).

3. Data Type

The types of data used are quantitative data and qualitative data. Quantitative data is data in the form of numbers (Suharyadi & K., 2003), while qualitative data is data related to categorization, characteristics in the form of questions and statements in the form of words (Riduwan, 2015). The quantitative data obtained from initial research in the form of observation as well as data from small group tests and field tests. While the qualitative data obtained from various reviews of experts/validators.

4. Data Collection Instruments

This study used several data collection instruments to find out how far the success of the products developed, including observation, questionnaires /questionnaires, documentation, tests, and interviews.

5. Data Analysis Techniques

The data analysis technique applied in this research and development is quantitative data analysis which begins with Feasibility analysis. The research data on the feasibility of developing HOTS-based LKS in Mathematics learning will be analyzed descriptively. The formula for processing percentage descriptive data is as follows:

$$V = \frac{TSe}{TSh} \times 100\%$$

Information:

V : Validity

TSe : Total Empirical Score

TSh : Maximum Total Score

Validation is carried out to test the product that has been revised in learning practice. Validation focuses on product applicability, namely whether or not the product can be used.

Table 1. The Research and Development Product Eligibility Percentage Table

No	Criteria	Feasibility Level
1	81,00%- 100,00%	Very feasible (can be used without revision)
2	61,00%- 80,00%	Feasible (usable with minor revisions)
3	41,00%- 60,00%	Less Feasible (recommended not to use because it needs revision)
4	21,00%- 40,00%	Not feasible (should not be used)
5	00,00%- 20,00%	Very not feasible (should not be used)

After going through this feasibility analysis stage, the researcher continued to test the effectiveness analysis which consisted of validity test, reliability test, then the researcher also went through the homogeneity, normality, and finally t test stages, to find out the effect of using the module.

Results and Discussion

English E-Module Development Design Using a Contextual Approach to Multicultural Based Teaching Learning

At the product development stage, this includes activities that are initial design of the learning language E-Module before being validated by experts. At this stage the activities carried out by researchers are as follows.

a. Creating Powerpoint Slides with Hyperlinks

Powerpoint slides are used as a medium to display the subject in this English e-module, slides are made by utilizing the hyperlink function where the slides are correlated with each other, by disabling the touch button in addition to the hyperlink button. With that, this e-module can later be used like electronic media in the form of an Android application. Where users just choose what they want by touching the button or icon. The researcher made the size of the podscape slide with a length x width that was adjusted to the size of the majority of the android layer, to make the appearance of this e-module fit when it was installed on android. The PowerPoint slide subject is as shown in the image below:

Figure 1. Creating Powerpoint Slides with Hyperlinks



b. Inserting Subjects into Powerpoint Slides

The subject is inserted into the powerpoint slide that has been made, inserted according to the parts that have been made with the hyperlink button above, here all the subject just needs to be pasted and adjusted to the size that has been made. The researcher deliberately included the subject after the slide was finished because the slides were made attractively and then the subject entered adjusts the slides and does not interfere with the design of the slides. The subjects included are as shown in the image below:

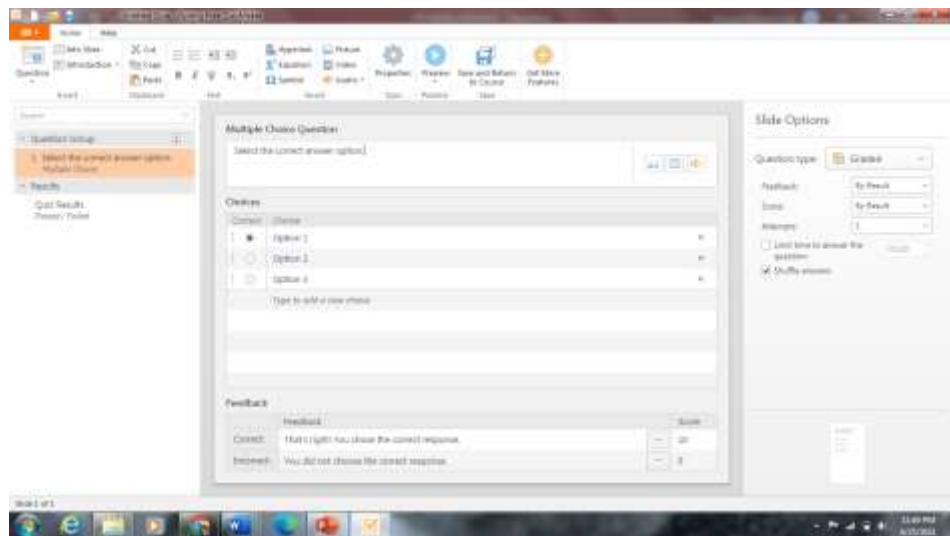
Figure 2. Inserting Subjects into Powerpoint Slides



c. Making Subject Evaluations Using Ispring

Learning evaluation is very important, where we know how far we have understood the subject that has been studied. The researcher deliberately evaluates the subject or learning using the ispring application, which has the advantage that the results are immediately visible and the written evidence is sent in full by e-mail. This email can later be addressed to the teacher's email, to make the teacher can find out in detail the extent to which the students understand the subject. The form of the learning evaluation is as shown in the image below:

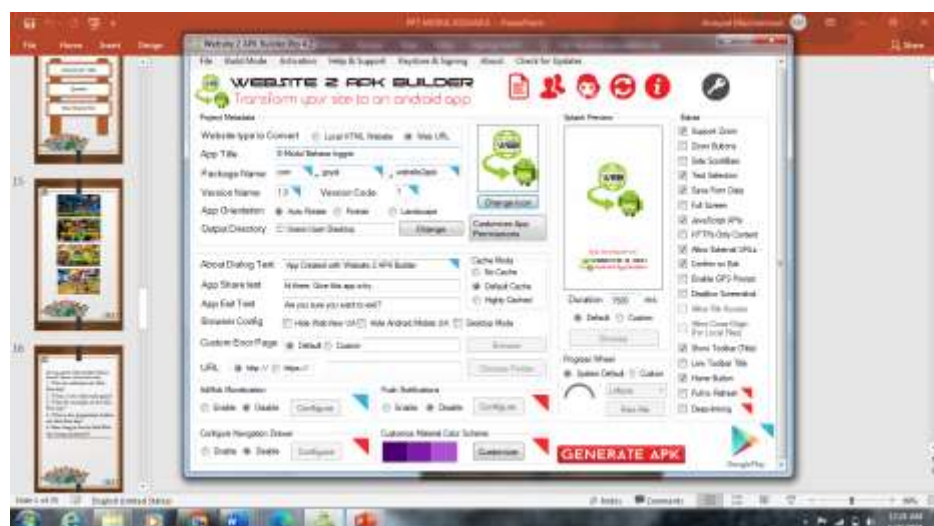
Figure 3. Making Subject Evaluations Using Ispring



d. Convert Powerpoint Slide File Using Web 2 Apk

The powerpoint file that has been completely filled in, is converted using the 2 apk web application to be used as a mobile application with the aim that it can be installed and used on students' androids. Here is the developer used web 2 apk because the application is easy to use and lightweight to install on low-end laptop devices. Here we just enter the powerpoint slide file and then select the application logo that appears on the Android layer display after it is installed. Here the researcher chooses the cover logo from the slide of the English e-module. The display in converting powerpoint slide files as shown below:

Figure 4. Convert Powerpoint Slide File Using Web 2 Apk



e. Installing Apps to Android

The results of converting powerpoint slide files using web 2 apk are then transferred to Android and then installed, once installed this English e-module is ready to be used like any other android application. The only thing that works is the hyperlink button. Researchers deliberately chose

to use Android, where currently learning is online or called distance learning. Where electronic-based media or IT is very influential on the learning.

The Feasibility Test of English E-Module Using a Contextual Approach to Multicultural-Based Teaching Learning

The feasibility of the smart circuit media in this study is based on the validation results from media experts and subject experts. Based on the results of the validity test of the first media expert, the presentation aspect got a percentage of 98% (very valid) and 92% (very valid) from the second media expert. Furthermore, for the efficiency aspect, the first media expert gave a percentage of 100% (very valid) and the second media expert gave a percentage of 86% (very valid). The overall view aspect gets a percentage of 100% (very valid) from the first media expert and 92% (very valid) from the second media expert. As for the aspect of the influence of the use of the first media expert gave a 100% assessment, and the second media expert gave 92%.

Researcher developed visual-based learning media in the form of smart circuit media for learning English for grade V MI. Each visual presentation consists of a number of elements that are deliberately arranged. There are at least 3 main categories of visual design elements, namely: visual, text, and affective elements. a) Visual elements include: graphics, symbols, real objects, or visual organization. b) Text elements include: all aspects of textual presentation, from the choice of words to the style of form, color, and size used. c) Affective elements, including: visual components that can elicit responses from observers such as fun, beauty, and so on (Suryani, Setiawan, & Putria, 2018). These three references must be considered in the process of developing visual-based media to make the media developed easy and feasible to use.

The second media expert suggested moving the home and next buttons, previewing them down on a white sheet and zooming in. Added game quizzes for games in the e-module. Added audio to accompany the song on the slide menu and covers as well as all buttons. Change the title of the test questions for each subject according to the chapter. This is in accordance with the nature of the game that is challenging (challenging), addictive (addicted) and fun (fun) can have a positive impact if the game being played is educational (Ningrum, 2016).

Based on the results of the subject test from the subject experts, the relevance aspect got a percentage of 91% (very valid) from the first subject expert and a percentage of 82% (very valid) from the second subject expert. The linguistic feasibility aspect gets a percentage of 94% (very valid) from the first subject expert and a percentage of 72% (very valid) from the second subject expert. While in the aspect of presentation of learning, the percentage is 95% (very valid) from the first subject expert and 75% (very valid) from the second subject expert. Then for the aspect of the effectiveness test, the percentage is 93% (very valid) from the first subject expert and 93% (very valid) from the second subject expert.

The first subject expert provided input related to instructions for working on practice questions in the assessment quiz. This will make it easier for students to understand the work of practice questions with clear instructions in the e-module. In addition, he also gave suggestions to clarify the Competency

Standards and Basic Competencies to make they are easy to read. According to the second subject expert, there are several images that do not meet between the two lines. There are some images that are not clear enough to give rise to multiple interpretations. So he suggested replacing a clear and precise image. In accordance with Bruner in Yusuf at elementary school age to get the ability to capture including memory, understanding, and application still requires eyes and hands. To make the display of images on the subject must be really appropriate and appropriate to make students do not misunderstand.

The researcher made a revision according to the advice of the second subject expert before using the media in the field. Based on these data, the product can be can be feasible to be applied in the learning. To make the smart circuit media can be used in the learning with revisions in several parts.

The Effect of Using an English E-Module Using a Contextual Approach to Multicultural-Based Teaching Learning

Before carrying out the test using the t-test, the researcher must perform a prerequisite test which includes the homogeneity test and the normality test to make the available data can really be analyzed by the t-test. Smart circuit media that has been revised based on advice from experts, then tested in the field. Field trials were conducted at MI Tarbiyatussibyan Boyolangu Tulungagung by taking grade 5A for pre-test and post-test. Homogeneity test was performed using SPSS 20.00 for Windows. From the homogeneity test that the researchers did, it is known that the significance value of the Test of Homogeneity of Variances is $0.651 > 0.05$. So it can be concluded that the data is homogeneous, so it is feasible to use in research.

After the homogeneity test was carried out, the researchers then conducted a normality test. The normality test was conducted to find out whether the data used were normally distributed or not. If the data is not normally distributed, then the test cannot be continued to the next stage. Normality test was carried out using the Kolmogorov Smirnov I-Sample. In this test, the data can be normally distributed if the significance level is 0.05. If the data has a significance level of <0.05 , then the data can be not normally distributed. The data used to test for normality is the data from the students' post test scores. From the normality test that the researchers did, it is known that the significance value of the I-sample Kolmogorov Smirnof test in the experimental grade was $0.191 > 0.05$ and the significance value in the control grade was $0.191 > 0.05$. So, it can be concluded that the data from the two gradees are normally distributed.

After testing the homogeneity and normality of the data, the researcher used the One Sample T-Test (t-test) to test the significance of the difference between the two means that came from the two distributions. The t-test was performed by calculating using SPSS 20.0 for Windows with the following output:

Table 2
The Output of Independent Sample T-test

One-Sample Statistics				
	N	Mean	Std. Deviation	Std. Error Mean
Pretest	21	74.33	7.385	1.611
Posttest	21	83.76	6.480	1.414

Table 3
One-Sample Test

Test Value = 0						
	t	df	Sig. (2-tailed)	Mean Difference	95% Confidence Interval of the Difference	
					Lower	Upper
Pretest	46.12	20	.000	74.333	70.97	77.69
Posttest	59.23	20	.000	83.762	80.81	86.71

The significance is $0.000 < 0.05$. So, it can be concluded that there is a difference in learning outcomes between (doing the learning without the E-module media) and the post test score (conducting the learning with the E-Module media). Thus, it can be concluded that the English E-Module has a significant effect on student learning outcomes.

The advantages of this media for elementary school students are in the aspect of affordability, and its usability to use because each student generally holds their own smartphone. Especially in this online learning period, students are required to study at home to make a student guide is needed, especially an electronic one, to make it is easier to distribute it to students without violating the health protocol. Students can also be creative when holding cellphones while studying in the E-Modul using the quiz game in it. Children at an early age generally like to play smartphones as a new thing for them. It's no wonder that early childhood students often spend hours in front of a smartphone screen, and don't feel bored. Through this media, students can formulate an understanding of a concept, rules, main elements, processes, results, impacts, and so on regarding English.

A module can be can be good if it is arranged by taking into account the characteristics of the module. The Ministry of National Education describes the characteristics of a good module, which is self-instructional to make students are able to learn independently without having to depend on other parties. A good module should also be self-contained which contains competency standards and the basic competencies learned are presented in one complete module to make students can study the subject independently. Then a module should not depend on other media or have to be used with other media, and be able to adapt existing technological developments to make it doesn't seem outdated. Finally, the

criteria that must exist in the module are the instructions and information contained in the module that are easy to use by students.

In this media there are quizzes and videos that are combined with a contextual and multicultural approach to make it looks interesting and can be used to help increase students' motivation and interest in learning. According to Arsyad, the purpose of adding pictures to the learning media is to visualize the concepts to be taught to students. The existence of questions accompanied by pictures will help students in analyzing the desired answers. The questions in this quiz are designed interactively to make they seem alive, and foster the interest of students who have a tendency to play. This interactive learning media then requires students to interact with the application, both to see and listen (Andrilla et al., 2014).

Anggani explained that playing is an activity carried out with or without the use of tools, which generate understanding or provide information, provide pleasure or develop children's imagination. So, they can learn without leaving their instincts that still like to play, and conversely they can fulfill their playing instincts without leaving their education (Widyaningsih, Anggani Linggar Barathi, & Sakhiyya, 2021).

Theories, and research results in journals also inform that learning outcomes can be influenced by several things including student motivation. While the motivation of students can be grown through what they like, and everything that is interesting according to their age level. One of them is the media used in the learning (Schunk & DiBenedetto, 2020). As in this study which used one grade, the first one did not use the English E-Module media, and the English E-Module, and it turned out that after being tested try using the T test, and there is a significant difference in learning outcomes. If the motivation to learn can be raised, then the task of the teacher is to maintain that motivation until the end of learning, to make learning outcomes can be improved.

Conclusion

The design of e-module development is carried out by analyzing the needs of learning media that can support the English learning, and improve learning outcomes. The learning media produced is in the form of an English E-Module which focuses on a contextual approach, and conveys various cultures. In addition, it also provides a place to learn while playing. Carrying a colorful display, to attract the interest of students to be motivated to learn English. This E-Module is suitable for use in improving English learning outcomes. That can be seen from the results of the feasibility test by media experts and subject experts before being applied in the field. Based on data analysis of pre-test and post-test scores with t-test analysis, it is known that to improve learning outcomes, it is proven that there is a significant difference in learning outcomes with t-test results data, which obtained a significance value of $0.00 < 0.05$.

References

- Afrikani, T., Solihatin, E., & Musnir, D. N. (2020). Improving Teacher's Ability through Training in Learning Strategies Based on Cooperative STAD Techniques. *JETL (Journal of Education, Teaching and Learning)*, 5(1). <https://doi.org/10.26737/jetl.v5i1.1145>
- Andrilla, R., Najib, M., Sutarjo, Adisusilo. J.R., Sujiono, Y. N. S. B., Wina Sanjaya, ... Arif, R. M. (2014). Bermain Kreatif Berbasis Kecerdasan Jamak. *JPDI (Jurnal Pendidikan Dasar Indonesia)*, 6(1).
- Asnawir, H. (2015). Sedangkan menurut Association of Education and Communication Technology. *Media Pembelajaran*, 4(1).
- Hanafy, M. S. (2014). Konsep dan Pembelajaran. *Lentera Pendidikan*, 17(1).
- Harahap, M. Y. (2018). Kondisi dan Suasana Pembelajaran yang Efektif. *Jurnal Al-Fikru*, (2).
- McLeod, S. A. (2015). Jean Piaget: Cognitive Theory. *Developmental Psychology*.
- Ningrum, S. S. (2016). Pengembangan Media Visual Papan Permainan pada Materi Bentuk Aljabar Mata Pelajaran Matematika Kelas VII SMP Siti Aminah Surabaya. *Journal UNS*.
- Riduwan. (2015). Metode dan Teknik Menyusun Skripsi dan Tesis. In *Bandung: Alfabeta*.
- Schunk, D. H., & DiBenedetto, M. K. (2020). Motivation and social cognitive theory. *Contemporary Educational Psychology*, 60. <https://doi.org/10.1016/j.cedpsych.2019.101832>
- Subaidi, A. (2016). Self-Efficacy Siswa Dalam Pemecahan Masalah Matematika. *Sigma*, 1(2).
- Sudrajat, D. (2015). Studi Tentang Pelaksanaan Pengajaran Bahasa Inggris Di SD Kota Tenggarong. *CENDEKIA: Journal of Education and Teaching*, 9(1). <https://doi.org/10.30957/cendekia.v9i1.49>
- Suharyadi, & K., P. S. (2003). Statistika Deskriptif. *Statistika Untuk Ekonomi Dan Keuangan Modern*.
- Suryani, N., Setiawan, A., & Putria, A. (2018). Media Pembelajaran Inovatif dan Pengembangannya (Pipih Latifah (ed.). In *Sifonoforos* (Vol. 1).
- Syaodih, N. (2007). Metode Penelitian Pendidikan. *Bandung: Pustaka Setia*.
- Syaodih, N. (2008). Metode Penelitian Penelitian dan Pengembangan. *Jakarta: Kencana.*, (1985).
- Wahyudin uyu, A. M. (2013). Penilaian Perkembangan Anak Usia Dini. *Pesona PAUD*, 1(1).
- Wahyuni, S., & Samad, A. G. (2020). Bugis Language Interference with the Use of Indonesian Language in Communicating Students at SMP Negeri 1 Pammana. *Journal of Indonesian Language Education and Literary*, 4(2). <https://doi.org/10.31327/jilel.v4i2.1129>
- Widyaningsih, M. S., Anggani Linggar Barathi, D., & Sakhiyya, Z. (2021). The Implementation of Process-Based Writing Approach (PBWA) To Teach Writing to Students with Different Writing Anxiety. *International Journal of Scientific and Research Publications (IJSRP)*, 11(3). <https://doi.org/10.29322/ijsrp.11.03.2021.p11161>