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# The Role of Online Learning Media in Increasing Student Achievement and Learning Motivation

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### ABSTRACT

**Background.** Learning media is not only in the form of books, but in this day and age, many learning media are now in online or digital form which can be used by students and teachers at school anytime and anywhere.

**Purpose** The aim of this research is to increase student motivation and improve student achievement in online learning media.

**Method.** This research uses quantitative methods by collecting data in the form of interviews and questionnaires distributed online.

**Results.** The results of this research explain that online learning media has a very positive impact on the world of education. This makes teachers have to be more creativez and innovative in using online learning media to attract more students' interest in learning.

**Conclusion** The conclusion of this research is that the role of online learning media is very influential in increasing student motivation and student achievement. The limitation of this research is that the research only mentions suitable online learning media without looking at whether it suits the students' needs.

#### KEYWORDS

Increasing Achievement, Learning Media, Learning Motivation

# INTRODUCTION

One of the goals in the process of classroom learning activities is to improve student learning achievement. Networked learning is a distance education method where there are activities carried out separately from learning activities according to Mustofa et al (2019: 166). Learning in this network provides benefits in helping to provide access to learning for everyone, so that it can remove physical barriers as a factor for learning within the classroom (Riaz, 2018). The use of media in the classroom must be considered by an educator as a facilitator of every learning activity.

The use of learning media motivates students to learn and further encourages writing, speaking and imagination(Tafonao, 2018). Networked learning is carried out via internet and web networks (Alesandro, 2018: 166). Learning media is an effort to provide students with abilities and skills in understanding material, Driscoll (2000; 11).

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Learning media is anything that can be used to channel a message from the sender to the recipient in order to stimulate the thoughts, feelings, attention and will of students so that it can encourage a learning process (Mufarokah, 2009; 103). According to Arsyad (2010; 15-16), learning media can increase and direct students' attention so that it can foster learning motivation, more direct interaction between students and their environment. According to Isman (in Dewi, 2020) networking is the use of the internet network in learning activities, and being able to learn anytime and anywhere.

According to (Sanaky, Hujair, AH, 2011) learning media is a tool that has the function of conveying a learning message from an educator and a student. According to Pane (2017; 35), learning and learning activities are educational interaction processes in order to achieve educational goals. According to (Aini et al, 2016), the activity of a teacher can be useful for creating an active, enjoyable and non-observant learning atmosphere, which will result in students being enthusiastic in participating in learning activities in class.Media is a communication tool used in the teaching and learning process. As a communication tool, learning media according to (Oemar Hamalik, 1994)

President of the Republic of Indonesia at the opening of the coordination meeting 2017 Internal control of the country's government on Thursday at the State Palace (18/5/017), said Jokowi, that's why the world is changing so fast technology, even other countries talk about space in this way, while people Indonesia is just learning how to use the internet, not to mention the problem of protests, slander and insults through social media spreading fake news. Therefore, resources must be provided by someone to overcome all existing problems. One way to overcome current problems is that quality training programs are needed that offer a variety of flexible knowledge, skills and values, producing human resources that are tough, independent and responsible in facing global challenges. Therefore, teachers are expected to be able to do this to develop the manual skills of the learning media themselves because the development of science and technology is increasingly encouraging renewal.

Advances in existing technology allow students and educators to make better use of the learning process. The development of science and technology is increasingly encouraging efforts to renew the use of technological results in the learning process. Technology provides teachers with a variety of learning opportunities around specific interests and needs, making teaching relevant and rewarding. Teachers are expected to know how to use these tools according to the needs of the times. Various educators, teachers are expected to work independently. Lessons are in accordance with professional, systematic and didactic principles, effective and efficient methods.

Ruth Lautfer (1999) said that online learning media is a pedagogical tool for teachers to communicate material, increase student creativity, and increase student attention in the learning process. Online learning media motivates students to learn by encouraging them to write, speak and imagine. Online learning media can be used to make the teaching and learning process more effective and efficient and to establish good relationships between teachers and students. Apart from that, online learning media can contribute to overcoming boredom in classroom learning, so teachers must use media to motivate students both inside and outside the classroom. If teaching is difficult, the material will become monotonous and students will get bored with the teacher's teaching (Nugraha et al., 2021).

According to Oemar Hamalik, teachers are responsible for carrying out educational activities in schools, meaning providing guidance and teaching to students (Oemar Hamalik: 2002). The teacher's role is the key to success in developing educational and teaching missions in schools apart from being responsible for organizing, directing and creating a conducive atmosphere that encourages students to carry out activities in class. (Abdul Majid: 2011). The role of a teacher is not only to teach about achieving learning goals but also how to guide and educate a child to have better behavior and attitudes. Teachers must also be able to provide creative and innovative learning methods so that

students do not get bored during the learning process, including accessing online learning media. Students who are not yet proficient in technology will definitely feel awkward when using online learning media, so the role of a teacher is really needed here.

According to Nurfadhilah in her research entitled the role of learning media in increasing students' interest in learning at KOHOD III Public Elementary School, this research aims to look at students' interest in learning about the learning media used. According to Arsyad (2002), efforts to increase the effectiveness of using learning media are by. Improving teacher skills in using learning media. Bahri (2006) also expressed the same thing, a teacher is required to have various skills that support his teaching duties. One of these skills is how a teacher can use learning media.

According to Steffi Adami and Muhammad Taufik Syastra (2015), learning media is everything, both physical and technical learning that can help teachers facilitate graduation, making it easier for students to achieve the learning goals that have been set. According to AECT (Association of Education and Communication Technology) quoted by Basyaruddin (2002) media are all forms used for the process of distributing information.(Mahnun, 2012)states that media comes from the Latin medium which means intermediary or introduction. Furthermore, media is a means of transmitting messages or learning information that the source of the message wishes to convey to the target or recipient of the message. From the definition above, it can be concluded that learning media is a tool in the teaching and learning process to stimulate students' thoughts, emotions, attention and skills or abilities to improve learning.(Paramita & Ernawati, 2020).

Meanwhile, according to Anglada (2002) in Nurhayati (2014), learning media is one part of learning design through planning, development and teaching processes based on students' needs.(Pratiwi & Meilani, 2018). Ayuba (2013) in Yusnita (2017), revealed that learning media that can motivate students in implementing learning is by utilizing learning media that suits students' needs for learning material and can be used. Sadiman (1986) in Sukmahidayanti (2015) stated that learning media is something that is used to send information from the sender to the recipient in order to arouse students' curiosity and encourage them to learn, so that the learning outcomes obtained can increase.(Pratiwi & Meilani, 2018).

#### **RESEARCH METHOD**

The approach used in this research is a qualitative approach using direct observation and documentary data collection techniques. Qualitative research is research that aims to understand a phenomenon regarding what the research subject has experienced which is then described in the form of words and language, by using a scientific method in a special natural context (Moleong, 2017: 6). This research aims to explain the phenomenon in as much depth as possible through collecting indepth data (Kriyantono, 2010; 56). The data analysis technique uses content analysis. What data is used as secondary data. Research is carried out through identifying problems encountered in school learning, then collecting, analyzing and closing according to possible needs. Solutions to these problems come in the form of development strategies that utilize library research(Efendi, 2019). According to Sugiyono (2013: 2) that research methods are basically a scientific way to obtain data with certain purposes and uses.

In this case the researcher made direct observations to obtain the data obtained. In this research, the observation method was used to collect data including:

- a. We monitor schools' efforts to implement technology-based learning
- b. Observing students' motivation to learn
- c. Observe students as they improve their learning

In observational research, the method the author uses to obtain information directly from the research object is the first method the author uses during the research. In this case the researcher made observations at MTS Negeri 2 Sikilang.

Data Source is the subject of the data received. There are different data sources, primary and secondary. Based on Sugiyono's opinion (2013:225) regarding data sources: b) Secondary data is data obtained indirectly. The data source for the teacher's role in increasing motivation and engagement among grade 8 students at MTsS Sikilang is the grade 8 teacher at MTsS Sikilang and 5 grade 8 teachers at MTsS Sikilang who provided direct information, obtained from grade 8 students. The data was analyzed using the data reduction stage, the data is presented in the form of qualitative descriptions, and researchers draw conclusions.

# RESULTS AND DISCUSSION A. LEARNING MEDIA

#### 1. Understanding learning media

The word media comes from the Latin word medius which literally means middle, intermediate or introduction in Arabic, media is an intermediary or messenger from the sender to the recipient of the message. Media is a messenger from the sender to the recipient of the message, thus a media is a vehicle for transmitting learning information or transmitting messages. Media can also be interpreted as a link between givers and recipients of information. The use of media as a link between an educator and students is called learning. However, active learning requires media support to deliver the material they will study.

Learning is a translation of the word instruction which in Greek is called intructus or inruere which means conveying thoughts. Thus, the meaning of instructional is conveying thoughts or ideas that have been processed meaningfully through learning.

The word lesson contains a more proactive meaning in carrying out the process of learning activities, because in it it is not only the teacher or instructor who is active but the students are active subjects in learning. Learning is not just conveying information or knowledge, but rather to condition students to learn because the main goal of learning is the students themselves.

So learning is a process of integration between educators and students as well as learning resources and media used, in an effort to bring about changes in cognitive, affective and motoric aspects. Therefore, in order for a learning activity to be meaningful for students, educators also need to develop learning media that are varied and interesting for students.

Learning media are all forms of communication tools that can be used to convey information from sources to students in a planned manner so as to create a conducive learning environment where recipients can carry out the learning process efficiently and effectively. Learning media is a message carrier technology that can be used for learning purposes, learning media is a physical means for conveying learning material.Learning media is also a means of communication in the form of printed, seen and heard, including hardware technology.

Learning media is used as a learning tool in schools with the aim of improving the quality of education. Media is a tool that can be used as a useful intermediary to increase effectiveness and efficiency in achieving goals.

In conclusion, learning media is anything that can be used to convey a message or information in the teaching and learning process so that it can stimulate students' attention and interest in learning.

Based on the opinion above, it can be concluded that learning media is a tool that contains learning material that an educator uses in a learning process so that learning will attract more attention from students.

# 2. Functions and Roles of Learning Media

Basically, media is a communication tool used in the teaching and learning process. As a communication tool, learning media has broad functions including: (a). The educational function of communication media, namely that every communication media activity contains an educational nature because it provides an educational influence. (b). The social function of communication media, communication media provides actual information and experiences in various areas of people's social life. (c). The economic function of communication media, communication media can be used intensively in the fields of trade and industry. (d). The political function of communication media, in the field of politics, communication media can function, especially in the politics of development, both material and spiritual. (e). The function of art and culture as communication media, developments in the field of art and culture can be spread through communication media.

There are several roles of learning media in the learning process, including: First, students have the ability to capture learning well. Thus, the use of media in classroom teaching is a necessity that cannot be ignored. Because learning media is a source of learning, media can broadly be interpreted as people, objects or events that create conditions for students to more likely acquire knowledge, skills or attitudes. Second, media arouses students' desire and interest in learning. Not only does it generate motivation to learn, but it has a positive influence on students' psychology. Because learning media can facilitate interaction between lecturers/teachers and students. Third, media has the ability to re-present objects or events in various ways according to needs and full of meaning.

3. types of learning media

According to Rudi Bretz as quoted by (Arif Sadiman, 1993) who divides it into 8 media classifications, namely:

- 1. Motion audio visual media.
- 2. Silent audio visual media.
- 3. Semi-motion audio media.
- 4. Motion visual media.
- 5. Visual media is silent.
- 6. Semi-motion visual media.
- 7. Audio media.
- Print media(Syopyan & Sari, 2021). Meanwhile, according to Briggs, (in Arif Sadiman, 1993) there are 13 types of media, namely:
- 1. Object.
- 2. Model.
- 3. Live sound.
- 4. Audio recording.
- 5. Print media.
- 6. Programmed learning.
- 7. Whiteboard.
- 8. Media transparency.
- 9. Chain film.
- 10. Frame film.
- 11. Film.
- 12. Television.
- 13. Picture(Musaddad Harahap & Siregar, 2018).

The choice of online learning media is very diverse, ranging from just sending messages (chatting) to media that can display videos or conduct video conferences. All online class platforms offer various interesting features and can make online learning easier.

## **B. LEARNING MOTIVATION**

Learning motivation is the drive that exists within a student who can make changes for the better in learning in order to achieve certain goals. In line with this, learning motivation is a driving force in students which causes learning activities to take place which can provide direction to achieve a certain goal. Based on the opinions of several experts above, it can be concluded that learning motivation is an effort within students and other people that provides an influence or encouragement to carry out learning activities.

To find out students' learning motivation, it can be seen from the learning motivation indicators. Indicators of learning motivation based on Sadirman's (2016) opinion are being persistent in facing tasks, preferring to work independently, being tenacious in facing difficulties, being able to defend one's opinion, showing interest in various problems, quickly getting bored with tasks given routinely, enjoying searching or solving a problem, and it's not easy to let go of something you believe in. In line with Nugraha's opinion, the indicator of learning motivation is desireas director which means guide. In this case, the teacher provides full guidance to students whether they have high or low learning motivation. The teacher provides guidance by explaining again to students who do not understand. Apart from that, guidance can be provided by explaining or clarifying learning objectives to students in teaching and learning process to increase students' learning motivation. The teacher provides guidance by explaining motivation. The teacher provides guidance by explaining or clarifying learning objectives a variety of media during the learning process to increase students' learning motivation. The teacher provides who do not understand. Apart from that, guidance can be provided by explaining motivation. The teacher provides guidance by explaining motivation. The teacher provides guidance by explaining again to students who do not understand. Apart from that, guidance can be provided by explaining motivation. The teacher provides guidance by explaining again to students who do not understand. Apart from that, guidance can be provided by explaining motivation. The teacher provides guidance by explaining or clarifying learning objectives to students in teaching and learning activities. Not only that, the teacher as a mediator also applies a variety of media during the learning process to increase learning motivation.

## MOTIVATIONAL FUNCTION IN LEARNING

The success of the teaching and learning process is influenced by student learning motivation. Teachers as educators need to encourage students to learn to achieve goals. Two motivational functions in the learning process proposed by Wina Sanjaya (2010: 251-252), namely:

1. Encouraging students to do activities Everyone's behavior is caused by encouragement that comes from within which is called motivation. The size of a person's enthusiasm for work is largely determined by the size of that person's motivation. Students are enthusiastic about completing assignments given by the teacher on time and want to get good grades because students have high motivation to learn.

2. As a director, the behavior shown by each individual is basically directed to fulfill their needs or to achieve predetermined goals. Thus, motivation functions as a driver of effort and achievement. Having good motivation in learning will show good results.

Furthermore, according to Winarsih (2009:111) there are three functions of motivation, namely:

1. Encourages humans to act, acting as a driving force or motor that releases energy. Motivation in this case is the driving force of every activity carried out.

2. Determine the direction of action towards what you want to achieve. In this way, motivation can provide direction and activities that must be carried out in accordance with the stated goals.

3. Selecting actions, namely determining what actions must be done to achieve the goal. So the presence of motivation will provide encouragement, direction and actions that will be carried out in an effort to achieve the goals that have been previously formulated.

The function of motivation is as a driver of effort in achieving achievement, because a person making an effort must encourage his desires and determine the direction of his actions towards the goals he wants to achieve. In this way, students can select actions to determine what should be done that is beneficial for the goals they want to achieve

# C. INCREASING LEARNING ACHIEVEMENT

1. Definition of Learning Achievement

Learning achievement is a numerical value that shows the quality of success where students are able to successfully participate in evaluations that have been held by teachers and the school. Learning achievement is also the result of several factors that can influence the overall learning process. As one measure of student success, learning achievement includes the cognitive domain, affective domain and psychomotor domain, Bloom (1976) in Sudjana (2011). Meanwhile, according to Mukodim et al (2004) in Syarif (2012), learning achievement is the result of educators' assessment of student learning processes and outcomes which describe students' mastery of subject matter or relatively persistent behavior as a result of the learning process experienced by students within a certain period of time. Based on the explanation regarding the definition of learning achievement, it can be concluded that learning achievement is the accumulation of learning obtained by students in the form of grades which include the cognitive domain, affective domain and psychomotor domain during the learning process.

2. Learning Achievement Indicators

There are several indicators used to measure student learning achievement. According to Slavin (2009) in Syarif (2012), student learning achievement is measured by the extent to which the concepts or competencies that are learning objectives (instructional objectives) or behavioral objectives (behavioral objectives) are able to be mastered by them. students at the end of the teaching term(LN et al., 2014). Syah (2007) also stated the same thing, learning achievement is measured by changes in behavior that occur.

Petty (2004) in Syah (2010), explains that learning achievement indicators consist of three domains, which are described as follows.

- a. The realm of creativity (cognitive), which includes observation,
- b. memory, understanding, analysis, and synthesis (can conclude).
- c. The realm of feeling (affective), which includes acceptance, welcome, appreciation, internalization and characterization.

d. The domain of intention (psychomotor), which includes movement and action skills as well as verbal and non-verbal expression skills.

Based on the explanation above, it can be concluded that the indicators of learning achievement consist of the cognitive, affective and psychomotor domains. These three domains are dynamic activities, through which students are continuously active in developing their abilities. To reach a higher level through the learning process or practice (Aunurrahman, 2014). The results of student activities related to these three domains are attached in the form of student learning results reports or report cards held by each student. The learning results report is a report on the results of evaluating student learning activities during one semester which is included in the form of grades and a description of the meaning of these grades which is submitted to the student's parents/guardians.

3. Efforts to Improve Learning Achievement

Efforts to get to know and understand students are ongoing activities, because students' needs are not permanent, but change according to the stages of their development. Within the scope of their duties, teachers are required to have a number of skills related to the tasks they carry out. As a teacher, you must be able to understand and appreciate the unique way students learn and their developmental needs.

To improve learning achievement, teachers must prepare a series of tests that aim to determine the development of the learning process, including mastery of certain material in the curriculum, cognitive abilities and student potential. The presence of the teacher in the learning process plays an important role, so teachers need to have skills in choosing the right method when delivering material to students so that it becomes more interesting, one of which is by utilizing the use of learning media so that the learning process does not experience boredom, and can receive the material smoothly. easy("The Efficiency of the PQ4R Strategy in Understanding the Mathematical Proof among the Primary School Female Students," 2020). The Directorate General of Education and Education Personnel (2006) in Aunurrahman (2014), describes the pedagogical competencies that teachers must have, namely, understanding students, designing learning, implementing learning, designing and carrying out learning evaluations, and developing students to actualize various potentials. he has. If in the learning process, the teacher is able to actualize the tasks well, is able to guide, provide motivation, then students will receive strong support to achieve the expected learning outcomes.

Based on the explanation above, it can be concluded that the use of online learning media plays an important role in achieving the desired learning achievements. The optimal learning process is not only related to students' internal factors, but external factors also play an important role in the progress of learning in the classroom.(Mamat, 2018). Online-based learning media allows students to improve their learning achievement because they are curious about what kind of online learning media their teacher will use so that they are enthusiastic and want to know more so that their learning achievement increases through this high interest in learning.

#### CONCLUSION

From the results of research, observation, evaluation and reflection on each action cycle that has been described in the previous chapter, it is concluded that using audio visual media on the subject of "zakat", especially in the odd semester of class IX-1 of SMP Negeri 1 Batangtoru for the 2020/2021 academic year, that student learning outcomes can be improved. This is shown in the percentage of students' grades after the action increasing, if in the pre-cycle the percentage of students' grades was 39.39%, then in the first cycle the percentage of students' grades increased to 60.61%. However, it has not yet achieved the predetermined performance indicators. Furthermore, in cycle II it further increased from cycle I, namely from 60.61% to 90.91%. and have fulfilled it The performance indicators that have been previously determined are 85% classical and students have achieved a minimum score of 70.

#### SUGGESTION

Suggestions for future researchers, it is hoped that they can find effective learning media to increase students' learning motivation so that students can improve their achievements. Learning media should be able to help students make it easier to understand learning material that is not well understood and can help teachers in making it easier to convey the material. In addition Therefore, further research can expand knowledge regarding learning media that are suitable and appropriate to the students' educational level. It is hoped that not only that, further research can also increase

students' learning motivation so that students are also able to achieve good and proud achievements, not only in the school environment, but even outside of school or abroad.

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#### REFERENCES

- Al Alhareth, Y., & Al Dighrir, I. (2014). The Assessment Process of Pupils' Learning in Saudi Education System: A Literature Review. American Journal of Educational Research, 2(10), 883–891.<u>https://doi.org/10.12691/education-2-10-6</u>
- Efendi, A. (2019). Literary learning for teenager inmates in institute for children special rehabilitation. Educational Horizons, 38(3), 411–425.<u>https://doi.org/10.21831/cp.v38i3.27322</u>
- Fitriyana, N. (2020). Android-based-game and blended learning in chemistry: Effect on students' selfefficacy and achievement. Educational Horizons, 39(3), 507– 521.<u>https://doi.org/10.21831/cp.v39i3.28335</u>
- Juwita, R., Syarif, LR, & Tuhuloula, A. (2012). EFFECT OF TYPE AND CONCENTRATION OF ACID CATALYST ON FURFURAL SYNTHESIS OF RICE HUSK. Conversion, 1(1), 34.<u>https://doi.org/10.20527/k.v1i1.113</u>
- L.N., M., J. M, K., M, Y., & B. M, N. (2014). ICT-Integration in Higher Education and Student Behavioral Change: Observations at University of Arusha, Tanzania. American Journal of Educational Research, 2(11A), 30–38.<u>https://doi.org/10.12691/education-2-11A-5</u>
- Mahnun, ON (2012). (Study of Media Selection Steps and Their Implementation in Learning).37(1).
- Mamat, R. (2018). Manga and anime consumption as a learning media among Japanese learners in Malaysian public universities. Journal of Communication: Malaysian Journal of Communication, 34(3), 298–313.<u>https://doi.org/10.17576/JKMJC-2018-3403-18</u>
- Maramis, A. (2019). Effectiveness of Realia Media: A Case Study in SMP Negeri 1 Likupang Barat as a Partner in the KKN-PPM Program. Journal of Physics: Conference Series, 1387(1).<u>https://doi.org/10.1088/1742-6596/1387/1/012070</u>
- Musaddad Harahap, & Siregar, LM (2018). Developing Learning Resources and Media.<u>https://doi.org/10.13140/RG.2.2.19282.86721</u>
- Nugraha, WS, Suryaningrat, EF, Widyaningsih, YI, & Tetep, T. (2021). The use of Talking Toys in reducing the cognitive loads of elementary school students in science learning. Journal of Physics: Conference Series, 1987(1) , 012048.<u>https://doi.org/10.1088/1742-6596/1987/1/012048</u>
- Paramita, O., & Ernawati, T. (2020). THE EFFECT OF USING POP-UP MEDIA ON THE INTEREST AND LEARNING OUTCOMES OF SCIENCE CLASS IV STUDENTS OF SINGOSAREN PRIMARY SCHOOL. TRIHAYU: Journal of Elementary Education, 6(3).<u>https://doi.org/10.30738/trihayu.v6i3.8155</u>
- Prasetyono, H. (2018). Character-based economic learning implementation and teacher's reinforcement on student's affective competence in minimizing hoax. Educational Horizons, 37(3), 426–435.

- Pratiwi, ITM, & Meilani, RI (2018). THE ROLE OF LEARNING MEDIA IN IMPROVING STUDENT LEARNING ACHIEVEMENT. Journal of Office Management Education, 3(2), 33.<u>https://doi.org/10.17509/jpm.v3i2.11762</u>
- Ramadhani, MJF (2019). Application of the Jigsaw and Jingling Button Learning Model in View from Learning Interest on Student Learning Outcomes. Pythagoras, 8(2), 72–81.<u>https://doi.org/10.33373/PYTHAGORAS.V8I2.1904/</u>
- Rohmawati, E. (2018). Development of learning media using geogebra on the sub-subject of the tangent line of two circles. Pythagoras, 7(1), 78–88.https://doi.org/10.33373/PYTHAGORAS.V7I1.1186
- Safitri, M., & Putra, AJ (nd). OBSERVANCE AND NON-OBSERVANCE OF GRICEAN MAXIMS IN INSTRUCTIONAL CONTEXT: AN ANALYSIS OF EFL CLASSROOM INTERACTION.
- Sundari, H., Rafli, Z., & Ridwan, S. (2017). INTERACTION PATTERNS IN ENGLISH AS FOREIGN LANGUAGE CLASSROOM AT LOWER SECONDARY SCHOOLS.English Review: Journal of English Education, 6(1), 99.<u>https://doi.org/10.25134/erjee.v6i1.775</u>
- Syopyan, ER, & Sari, MP (2021). The Influence of Macro Photography as a Learning Media to Attract Students' Interest in Teaching and Learning Activities. Educational Research Media: Journal of Research in the Field of Education and Teaching, 15(1), 81– 88.<u>https://doi.org/10.26877/mpp.v15i1.8700</u>
- Tafonao, T. (2018). THE ROLE OF LEARNING MEDIA IN INCREASING STUDENTS' INTEREST IN LEARNING. Journal of Educational Communication, 2(2), 103.<u>https://doi.org/10.32585/jkp.v2i2.113</u>
- The Efficiency of the PQ4R Strategy in Understanding the Mathematical Proof among the Primary School Female Students. (2020). Journal of Education and Practice.<u>https://doi.org/10.7176/JEP/11-16-09</u>

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