

Mathematics teacher vs. media development, what are the learning problems in MTs?

Choirudin^{1,*}, Rani Darmayanti², Usmiyatun³, Rahmad Sugianto⁴, and V. Ananthaswamy⁵

¹Universitas Ma'arif Lampung, Indonesia

²Yayasan Assyfa Learning Centre Pasuruan, East Java, Indonesia

³Universitas Terbuka Jakarta, Indonesia

⁴SMA Wachid Hasyim 2 Taman, Sidoarjo, East Java, Indonesia

⁵Department of Mathematics, Lady Doak College, Madurai, Tamil Nadu, India

*Corresponding author: choirudin.umala@gmail.com

KEYWORDS

Mathematics Learning
Media Development
Islamic Junior High School
Teacher Problems

ABSTRACT Mathematics is expected to involve students actively and independently learning in the classroom. Using suitable media to the conditions in the field, especially the characteristics of students, will help activate the learning process effectively. However, mathematics teachers often, in practice in the area, tend to use something other than instructional media to equate the material. This study aims to describe the teacher's problems in developing learning media in MTs and the solutions given to several issues in learning. This research type is qualitative, with a descriptive approach used to describe information about the problems of developing learning media in MTs—the technique of determining the research object by random sampling. The results of this study are that in the development of learning media, especially learning mathematics, there are three obstacles. These various obstacles include the teacher's need to be maximal in providing or bringing up ideas and inspiration, how and what it looks like, and not even understanding enjoyable learning. Students who are taught are also not reactive to learning, which results in difficulty in inspiring. Then, the most crucial obstacle is yourself. Other constraints found are discussed in detail in this article.

© The Author(s) 2021. CC BY-NC 4.0 International license

1. INTRODUCTION

Education is an activity that aims to improve the quality of human resources (?Usmiyatun, 2021). One of the efforts to improve the quality of human resources is through the learning process in schools (Biruny & Salsabila, 2021; Dawenan, 2021). The learning process at school will be maximized when it is supported by complete facilities and infrastructure such as learning media (Salim, A., & Hidayah, 2021) and teaching materials (Kusuma & Suwartono, 2021; Triyono, 2021). Mathematics is expected to involve students actively and independently learning in the classroom (Ahmed et al, 2021; Putri, 2021). The use of suitable media (Kurniawan et al, 2021) and the conditions in the field (Indrawati, 2021), especially the characteristics of students, will help to activate the learning process effectively (Fitriyeh, 2021). However, mathematics teachers often, in practice in the field, use something other than instructional media to help convey material.

They are learning media in their usefulness in the classroom for teachers to convey learning material to make students easier to understand (Cahyadi, 2019; Setoningsih et al, 2021). Learning media can be defined as a component of learning resources related to instructional material in the educational environment to support the learning process

so that students are motivated to learn (Dawenan, 2021; Rachmavita, 2020). Examples of learning media are pictures (Charmaraman, 2021; Amir, 2016), concrete objects, voice (Ho, 2020), etc. Teachers use Online learning media in the learning process based on internet technology that can connect teachers and students online (Jafri et al, 2019; McAdoo et al, 2019).

Digital technology encourages renewal efforts in the learning process. Teachers are required to use it by the time, starting from designing (Heo et al, 2021), (Ahmed et al, 2021) implementing xxxx (Ahmed et al, 2021), and (Chen et al, 2021)evaluating (Chen et al, 2021; Permatasari & Prihatnani, 2021). In addition, the development of internet services also provides many types of learning media ready to be downloaded and used, such as video tutorials from YouTube and someone's blog (Marpanaji et al, 2018). However, the learning media often ready to be downloaded and used differs from the objectives and learning materials the teacher has debated. Therefore, the teacher must continue to provide media that is genuinely for the purposes and learning materials planned. The teacher must continue providing media that meets the goals and planned learning materials.

Learning is still synonymous with classical methods such as lectures and several learning media (Kariadi et al,

2021; Tang, 2021). Based on the interviews conducted (Rahmawati & Soekarta, 2021; Amir, 2016), the obstacles that became the main factor for teachers' problems in using learning media in the 2013 curriculum were that teachers still had difficulty adapting media to learning materials, the availability of 2013 curriculum media did not yet exist. This aligns with the research results conducted by (Lutfi et al, 2013; Untari, 2021; Wulantari et al, 2021). Teachers face media problems, including lack of time to make instructional media, lack of skills/ability, cost constraints, and insufficient learning media in the curriculum 2013. The diverse talents of teachers cause this.

The teacher's obstacle is not making learning media. Namely, the teacher only has a little time to make learning media. A lot of the teacher's time has been consumed to teach in class, even though they already have other work at home. This is what rarely makes learning media. Before making learning tools, teachers usually compile Prota and Prosem at the beginning of each new school year. In addition to making instructional media, teachers also have to do other tasks (Magis-Weinberg, 2021; Permatasari & Prihatnani, 2021). One of the efforts to improve the quality of education is by making the best use of the media so that teachers are expected to use instructional media to increase students' memory of information or learning materials (Güner & Gökçe, 2021; Senen, 2021). Therefore, teachers must use learning media starting from the learning outcomes' planning, implementation, and assessment stages.

Some teachers are only fixated on assistance in providing learning media even though learning media can be designed from various sources according to the needs and characteristics of the teaching material to be presented. Developing instructional media, references can be obtained from various sources, either in the form of experience or knowledge or by extracting information from sources, both experts and colleagues. However, this is a problem because the teacher thinks it is challenging (Alwi, 2017). Media development carried out by teachers still needs to be improved. Because, in general, teachers only use simple media such as textbooks and pictures. There has yet to be any more creative use of media. This is caused by the teacher's ability to use the media, which still needs to be improved. Moreover, more than media availability in school for learning is required (Eva et al, 2020).

Contrary to the critical role of mathematics, the fact is that there are still many students who think mathematics is a complex subject (Putra, 2018). The negative impression of mathematics attached to mathematics can be removed by carrying out innovations in delivering exceptional learning in mathematics (Maharani et al, 2021). With the existence of media in the mathematics learning process, it is hoped that it can assist teachers in increasing students' understanding of learning (Kusumayanti & Bayu, 2021; Rifani, 2021). There is a positive impact of using instructional media in learning mathematics (Sari et al, 2017). Therefore, teachers should present media in every learning process to achieve the goals (Amir, 2016).

Based on the description presented above, the researcher is interested in describing the teacher's problems in the development of learning media at MTs and the solutions given to several issues in the development of learning media.

2. METHOD

The type of research used in research This is a qualitative descriptive approach that is used to describe information about the problematic development of learning media in MTs. The data needed in this study were obtained from teachers who teach in junior high schools—the technique of determining the object of research by random sampling. The MTs used in the study were three different MTs. The data collection technique in this study was an open online questionnaire via Google Forms and offline interviews.

Researchers describe the problems of developing learning media in MTs, some of the media used during the learning process, and the solutions to some issues. The data obtained from this study are the results of an open questionnaire and interviews with mathematics teachers. The questionnaire is structured with available questions given to the teacher. While the interviews were conducted in-depth with MTs mathematics teachers, the interview guide aims to obtain information about the problems of media development.

Data analysis in this study used data analysis (Miles et al, 2018).



FIGURE 1. Data Analysis of Teacher's Problem

Figure 1 shows that the data analysis technique consists of three stages that must be carried out in analyzing qualitative research data: data condensation, data presentation, and conclusion/verification. Analyzing the data refers to data from questionnaires and interviews; complete notes are made. These notes consist of descriptions and reflections. It was second, based on records. Furthermore, data reduction is carried out. This data reduction is in the form of essential findings.

Moreover, it analyzes the results of questionnaires and interviews to find out the problems experienced by teachers in developing learning media. Next is to transcribe the results of the subject consultation. From the reduction of the data, it is then presented the arrangement of the data presentation in the form of a systematic story with the researcher's language so that it is more clearly understood. The researcher presents reduced questionnaire data and interview transcripts as a description. Third, conclude. Formulating conclusions is the final stage that is carried out, along with completing other qualitative data. Presentation in concluding the data adapted to the formulation of the problem that has been defined. Describing teachers' difficulties in developing learning media in MTs and the solu-

tions given to several issues in the development of learning media.

3. RESULTS AND DISCUSSION

Research with a qualitative descriptive approach was conducted on three teachers at different MTs. This study aims to describe the problems of developing mathematics learning media. To obtain research objectives, researchers used open questionnaires and interviews. Interviews strengthen data that needs to be explored based on the subject's response to an available questionnaire. The results of this study presented the problems of developing learning media, which include Use, Production, Constraints, Impacts, and Solutions. The field results carried out by researchers will be described as follows:

3.1 Use of Learning Media

It comes back to command. This society carries out orders. Now, under this command, where will P1: Do you use learning media in the learning process in the classroom?

S1 : Yes

S2 : Yes

S3 : Yes

P2: What learning media are used by the teacher in learning activities?

S1: Powerpoint and LKPD

S2 : PPT

S3: Package books, modules, worksheets

Based on the open questionnaire questions above, the three subjects used media in a learning activity. The media used by the subject varies. S1 uses PPT media (PowerPoint) and LKPD (Student Activity Sheets), and Masters only uses media in PPT (PowerPoint)—Doctoral uses learning media through textbooks, modules, and worksheets.

3.2 Making Learning Media

P3: Do you make your learning media that will be used?

S1 : Yes

S2 : Yes

S3: Some are yes, some are not

P4: What are your considerations in developing media?

S1: Characteristics of students

S2: So that learning in class is not boring

S3: So that in delivering the material, it is easier to achieve the goal

The learning media used by the three subjects is self-made. However, there needs to be self-made media on the subject (S3). The press is made with the consideration of each. S1 made the media concerning the characteristics of the students; Masters made the media with the care that learning in class was less boring. The Doctoral Program made the media with the consideration that it would be easier to deliver the material to achieve the goal.

3.3 Constraints in Making Learning Media

P5: What obstacles does the teacher face when making and using the media?

S1: Conformity with the conditions of students

S2 : None

S3 : Yes

Q6: Are the school facilities and infrastructure adequate for developing your media?

S1: Yes, internet access and LCD projector

S2 : Yes

S3 : Adequate

Based on the open questionnaire questions above, S1 needs help when making media, namely that part of the media is by the conditions of students. S3 has problems in the manufacture but needs to be explained. While S2 has no issues when making media.

The results of the interviews added that S1 needed more inspiration and understanding of what enjoyable learning was like. The students being taught were not reactive to learning, resulting in difficulty in inspiring. Then, the most crucial obstacle is yourself. S2 experienced problems with the absence of an LCD at school. Then S3 experienced challenges due to inadequate infrastructure, considering the school's location is far from minimarkets, etc., and the type of teaching material could also cause it. Several teaching materials can be explained with the help of teaching aids such as teaching media. There is also material that makes it challenging to make props, and if it is difficult, it can be helped with links media, for example, but even in creating links, sometimes you have trouble getting the source.

Based on the answers from the three subjects' open questionnaires, the school's existing facilities and infrastructure were adequate for media development. S1 explained that internet access and LCD projectors were sufficient school facilities and infrastructure.

3.4 Impact of Implementing Media

Q7: How do students respond to the media that you use during the learning process in class?

S1: Pretty good

S2: Very good

S3: Some respond well. Of course, some have difficulties.

P8: Does the use of instructional media influence student competency outcomes?

S1 : Yes

S2 : Yes

S3: Of course

The responses given by students to the provision of media during learning received different answers. S1 explained that the reaction from students was quite good, and S2 explained that the student response was excellent towards providing media during education. While S3 explained that students' responses when given media during learning were those who responded well, some had difficulties. The students' answer was quite perfect influenced by student competency achievements.

3.5 Media Development Solutions

Q9: If you want to add new media, what media do you want to use?

S1: Interactive learning videos

Masters2: 3D application, so students can more easily understand the material about shapes and lines.

S3 : Props

The development of the media can develop various kinds of media. New media can be added based on the answers from the three subjects. S1 gives the argument that the new media can be in the form of interactive learning videos, S2 gives the idea that the new media can be in the form of 3-dimensional applications so that students can more easily understand the material of shapes and about lines, and S3 gives the argument that the new media can in the form of props.

Based on the interviews, S1 explained that the solution to the obstacles faced was that it needed much research and needed to discuss with students—approach to students, what kind of learning is desired. Interactive learning is one example of learning that can make students more active, and the visuals can attract students to be engaged in learning. S2 explains Delivering material using the playing method. There, students will be more actively involved in learning. Then, S3 explained that teachers have to look for many sources of reading from various forms. For example, from books, YouTube, etc.

Generally, learning media is one of the essential components a teacher needs. Based on the results above, the three subjects used learning media in the learning process at school. The media used by various topics, from S1, using PPT media (PowerPoint) and LKPD (Student Activity Sheets), Masters only using media in the form of PPT (PowerPoint), then Doctoral using learning media in the form of textbooks (Coates et al, 2018), modules (Wang et al, 2020), and worksheets (Suwarno, 2017). Making media is indeed challenging. S1 explained that in making media, there are obstacles that the press made must by the conditions of students.

Making the media carried out by the three subjects considers the characteristics of the students so that learning in class is less tedious and that delivering material is easier to achieve goals. In line with the opinion, (Sugianto et al, 2017), the media concept is to use more than just media for all the components of the system and learning resources above to achieve specific learning objectives. (Ahmed et al, 2021) argues that learning media itself is interpreted as anything that can be used to convey messages from the sender (teacher) to the recipient (students) (Vidyastuti et al, 2018) so that it can stimulate the thoughts, feelings, concerns, and interests of students which encourage the learning process.

The media given to students received a good response. This was based on the three answers from the subject. However, some students need help. Good responses given by students influence student competency achievements. This is to the study's results (Sugianto & Darmayanti, 2021) that learning with the help of the media can affect the value of competence in mathematics knowledge is higher than conventional learning.

New media that can be given to students are of various kinds, such media as S1 (interactive learning videos),

Masters (3-dimensional applications so that students more readily understand material about shapes and lines), and Doctoral (Physical Teaching aids).

4. CONCLUSION

The results described above conclude that several obstacles in developing learning media, especially learning mathematics. Based on the results and discussion above, the constraints are (1) Lack of inspiration and understanding of enjoyable learning. The students being taught were not reactive to learning, resulting in difficulty in inspiring. Then the most crucial obstacle is oneself, (2) The problem is that there is no LCD in schools, (3) Inadequate existing facilities and infrastructure, then the difficulty of the material being taught by combining visual aids.

The solutions that can be sought for these obstacles are that it needs much research and discussion with students—approach to students, what kind of learning is desired. Interactive learning is one example of learning that can make students more active, and the visuals can attract students to be engaged in learning. Students will be more actively involved in learning by delivering material using the play method. Teachers must find many sources of reading in various forms, for example, from books, YouTube, etc.

References

- Ahmed, M., Usmiyatun, & Darmayanti, R. (2021). CODE ATI: Sewing activities with various patterns affect the cognitive aspects of kindergarten children? *AMCA Journal of Education and Behavioral Change*, 1(1).
- Alwi, S. (2017). Problematika guru dalam pengembangan media pembelajaran. *ITQAN: Jurnal Ilmu Kependidikan*, 8(2), 145–167.
- Amir, A. (2016). Penggunaan Media Gambar Dalam Pembelajaran Matematika. *Eksakta : Jurnal Penelitian dan Pembelajaran MIPA* 1(2), 34–40. <http://dx.doi.org/10.31604/eksakta.v1i2.%25p>
- Arkema, K. K. (2021). Advancing sustainable development and protected area management with social media-based tourism data. *Sustainability (Switzerland)*, 13(5), 1–19. <https://doi.org/10.3390/su13052427>
- Biruny, D. H., & Salsabila, I. (2021). The application of a Humanistic approach to health care and education. *AMCA Journal of Community Development* 1(1). <http://jurnal.lamca2012.org/index.php/ajcd/article/view/22>
- Cahyadi, A. (2019). *Pengembangan media dan sumber belajar: teori dan prosedur*. Serang: Laksita Indonesia.
- Charmaraman, L. (2021). Early Adolescent Social Media-Related Body Dissatisfaction: Associations with Depressive Symptoms, Social Anxiety, Peers, and Celebrities. *Journal of Developmental and Behavioral Pediatrics*, 42(5), 401–407. <https://doi.org/10.1097/DBP.0000000000000911>
- Chen, A., Jiang, Y., Li, Z., Wu, L., Santiago, U., & ... (2021). Chitinase-3-like 1 protein complexes modulate macrophage-mediated immune suppression in glioblastoma. *The Journal of Clinical Investigation*, <https://www.jci.org/articles/view/147552>

- Coates, R. L., Kuhai, A., Turlej, L. Z. J., Rivlin, T., & McKemish, L. K. (2018). Phys FilmMakers: Teaching science students how to make YouTube-style videos. *European Journal of Physics*, 39(1). <https://doi.org/10.1088/1361-6404/aa93bc>
- Dawenan, F. A. Z. (2021). A content analysis on articles related to meta-cognitive listening strategies. *AMCA Journal of Community Development*, 1(1). <http://journal.amca2012.org/index.php/ajcd/article/view/3>
- Eva, Rr. P. V. B., Sumantri, M. S., & Winarsih, M. (2020). Media Pembelajaran Abad 21: Komik Digital Untuk Siswa Sekolah Dasar. Prosiding Seminar dan Diskusi Nasional Pendidikan Dasar, *Transformasi Pendidikan Menyongsong SDM di Era Society 5.0*.
- Fitriyeh, I. D. (2021). Development of moodle-based e-learning as a mathematics learning media to improve student learning outcomes in integral materials. *AMCA Journal of Education and Behavioral Change*, 1(1). <http://journal.amca2012.org/index.php/ajeb/article/view/56>
- Güner, P., & Gökçe, S. (2021). Linking critical thinking disposition, cognitive flexibility and achievement: Math anxiety's mediating role. *Journal of Educational Research*, 114(5). <https://doi.org/10.1080/00220671.2021.1975618>
- Heo, W., Lee, J. M., & Rabbani, A. G. (2021). Mediation Effect of Financial Education between Financial Stress and Use of Financial Technology. *Journal of Family and Economic Issues*, 42(3). <https://doi.org/10.1007/s10834-020-09720-w>
- Ho, S. (2020). Development and validation of a parental social media mediation scale across child and parent samples. *Internet Research*, 30(2), 677–694. <https://doi.org/10.1108/INTR-02-2018-0061>
- Indrawati, P. A. M. (2021). Students' interest in learning reviewed from the Traditional Game Guide Book at SMP Kepulauan Riau. *AMCA Journal of Education and Behavioral* <http://journal.amca2012.org/index.php/ajeb/article/view/53>
- Jafri, L., Majid, H., Siddiqui, H. S., Islam, N., & Khurshid, F. (2019). Blended learning mediated fostering of students' engagement in an undergraduate medical education module. *MedEdPublish*, 8. <https://doi.org/10.15694/mep.2019.000127.1>
- Kariadi, M. T., Riyanton, M., & Anggraheni, D. (2021). Planning and Developing Creativity through Media-Based Learning in English Language Teaching. *ENGLISH REVIEW: Journal of English Education*, 9(2).
- Kurniawan, A. R. (2021). Developing supplementary listening materials for vocational high school students using technology, education, and design (ted) online media. *AMCA Journal of Education and Behavioral* <http://journal.amca2012.org/index.php/ajeb/article/view/54>
- Kusuma, L., & Suwartono, T. (2021). EFL teachers' beliefs about students' motivation towards learning English during emergency remote learning at an Indonesian junior high school. *AMCA Journal of Science and Technology*, 1(1). <http://journal.amca2012.org/index.php/ajst/article/view/101>
- Kusumayanti, N. P. M., & Bayu, G. W. (2021). Learning Ecosystems with Educational Monopoly Media. *International Journal of Elementary Education*, 5(2). <https://doi.org/10.23887/ijee.v5i2.34629>
- Lutfi, M., Sudirman, & Paramitha, R. (2013). *Sisi Lain Kebijakan Profesionalisme Guru: Optik Hukum, Implementasi dan Rekonsepsi*. Malang, Indonesia: UB Press
- Magis-Weinberg, L. (2021). Context, Development, and Digital Media: Implications for Very Young Adolescents in LMICs. *Frontiers in Psychology*, 12. <https://doi.org/10.3389/fpsyg.2021.632713>
- Maharani, M., Supriadi, N., & Widyastuti, R. (2018). Media Pembelajaran Matematika Berbasis Kartun untuk Menurunkan Kecemasan Siswa. *Desimal: Jurnal Matematika*, 1(1). <https://doi.org/10.24042/djm.v1i1.2036>
- Marpanaji, E., Mahali, M. I., & Putra, R. A. S. (2018). Survey on How to Select and Develop Learning Media Conducted by Teacher Professional Education Participants. *Journal of Physics: Conference Series*, 1140(1). <https://doi.org/10.1088/1742-6596/1140/1/012014>
- McAdoo, R. M., Key, K. N., & Gronlund, S. D. (2019). Task effects determine whether recognition memory is mediated discretely or continuously. *Memory and Cognition*, 47(4). <https://doi.org/10.3758/s13421-019-00894-9>
- Miles, M. B., Huberman, A. M., & Saldana, J. (2018). *Qualitative data analysis: A methods sourcebook*. SAGE Publications
- Permatasari, B., & Prihatnani, E. (2021). The Development of Jateng Gayeng Monopoly Media: Learn Unit Conversion by Loving Culture. *Jurnal Matematika Kreatif Inovatif Kreano*, 12(2), 238–251. <http://journal.unnes.ac.id/nju/index.php/kreano>
- Putra, F. G. (2017). Eksperimentasi Pendekatan Kontekstual Berbantuan Hands On Activity (HoA) Terhadap Kemampuan Pemecahan Masalah Matematik. *Al-Jabar : Jurnal Pendidikan Matematika*, 8(1), 73–80. <https://doi.org/10.24042/ajpm.v8i1.1148>
- Putri, S. F. (2021). The effectiveness of online learning during the covid-19 pandemic. *AMCA Journal of Education and Behavioral Change*.
- Rachmavita, F. P. (2020). Interactive media-based video animation and student learning motivation in mathematics. *Journal of Physics: Conference Series*, 1663(1). <https://doi.org/10.1088/1742-6596/1663/1/012040>
- Rahmawati, M. S., & Soekarta, R. (2021). Social Media-Based E-learning and Online Assignments on Algebraic Materials. *Jurnal Pendidikan Matematika*, 15(2), 175–190. <https://doi.org/10.22342/jpm.15.2.13714.175-190>
- Rifani, E. (2021). The mediation effect of moral disengagement on spiritual-religious attitudes and academic dishonesty among guidance and counseling students. *Islamic Guidance and Counseling Journal*, 4(1), 33–42. <https://doi.org/10.25217/igcj.v4i1.1147>
- Salim, A., & Hidayah, N. (2021). The Religious moderation values in Islamic school implementing during Covid-19 at

- MAN 1 Bantul and Ma al Mahalli. *AMCA Journal of Religion and Society*. <http://journal.amca2012.org/index.php/ajrs/article/view/85>
- Sari, A. U., Farida, & Putra, F. G. (2017). Pengembangan Media Pembelajaran Berbantuan Web Dengan Pendekatan Etnomatematika Pada Pokok Bahasan Bangun Ruang Sisi Datar. *Seminar Nasional Matematika dan Pendidikan Matematika 2017 UIN Raden Intan Lampung*, 1(1).
- Senen, A. (2021). The use of photo comics media: Changing reading interest and learning outcomes in elementary social studies subjects. *Cypriot Journal of Educational Sciences*, 16(5), 2300–2312. <https://doi.org/10.18844/cjes.v16i5.6337>
- Setoningsih, D. A. (2021). Challenges of English online learning during covid-19: A survey study of secondary school students' perceptions. *AMCA Journal of Education and Behavioral Change*, 1(1). <http://journal.amca2012.org/index.php/ajeb/article/view/55>
- Sugianto, R., & Darmayanti, R. (2021). Teachers in Their Perceptions and Influences on LINU, Positive or Negative? *AMCA Journal of Science and Technology*, 1(1), 20–24.
- Sugianto, R., Darmayanti, R., Amany, D. A. L., Rachmawati, L. N., Hasanah, S. N., & ... (2017). Experiment on Ability to Understand Three Dimensional Material Concepts Related to Learning Styles Using the Geogebra-Supported STAD Learning Model. *Al-Jabar: Jurnal Pendidikan Matematika*, 8(2), 205–212.
- Suwarno, M. (2017). Potensi Youtube Sebagai Sumber Belajar Matematika. *Pi: Mathematics Education Journal*, 1(1). <https://doi.org/10.21067/pmej.v1i1.1989>
- Tang, J. (2021). Social media-based disaster research: Development, trends, and obstacles. *International Journal of Disaster Risk Reduction*, 55. <https://doi.org/10.1016/j.ijdr.2021.102095>
- Triyono, A. (2021). Building Tawheed-based morality in society during the revolutionary era of society 5.0. *AMCA Journal of Religion and Society*. <http://journal.amca2012.org/index.php/ajrs/article/view/35>
- Untari, E. (2017). Problematika Dan Pemanfaatan Media Pembelajaran Sekolah Dasar Di Kota Blitar. *Jurnal Pendidikan Dasar PerKhasa*, 3(April).
- Usmiyatun, U., Darmayanti, R., Safitri, N. D., & Afifah, A. (2021). Cognitive Style, Thinking Ability, Mathematical Problems, How Do Students Solve Open-Ended Problems? *AMCA Journal of Science and Technology*, 1(2).
- Vidyastuti, A. N., Darmayanti, R., & Sugianto, R. (2018). The Role of Teachers and Communication Information Technology (ICT) Media in the Implementation of Mathematics Learning in the Digital Age. *Al-Jabar: Jurnal Pendidikan Matematika*, 9(2), 221–230.
- Wang, H. c. (2020). Learning English from YouTubers: English L2 learners' self-regulated language learning on YouTube. *Innovation in Language Learning and Teaching*, 14(4), 333–346. <https://doi.org/10.1080/17501229.2019.1607356>
- Wulantari, V., Ermiana, I., & Oktaviyanti, I. (2021). Analisis Kesulitan Guru Dalam Pembuatan Rencana Pelaksanaan Pembelajaran Kurikulum 2013 Gugus 1 Kecamatan Gerung. 2, 72–81.