



Use of Learning Media to Increase Student Motivation in Junior High School

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ABSTRACT

The development of the times greatly affects life, one of which is in the field of education, many innovations related to education, one example is the use of learning media in the teaching and learning process and motivation. Lots of learning innovations that produce technology that makes it easier for an educator to provide learning material so that students get motivation to learn. Learning media is very useful in every lesson at the Junior High School level. This study aims to determine the application of the use of any media that can influence and encourage students' learning motivation at the Junior High School level. This type of research is descriptive qualitative research. Data obtained through observation, interviews and documentation. The results showed that the use of learning media on students' learning motivation greatly supported motivation in learning activities. Students are very motivated when the learning uses projector media and speakers. In addition, the use of learning media at the junior high school level has an important role in the interest and motivation of students to learn, including feelings of pleasure and interest in the material increases. The implication of this research is that educators in delivering learning materials in the classroom must be good at choosing and using the right media, educators must also have creative and innovative ideas so that the learning atmosphere of students is more enthusiastic and motivated. The limitation of this study is that researchers only observed one school, therefore researchers hope that future researchers can observe more schools and better ways.

Keywords: *Learning, Motivation, Media*

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INTRODUCTION

As a result of Qur'an Hadith education, students are guided not only to achieve happiness in this life but also towards happiness in the hereafter, which plays an important role in influencing their behavior. With the help of Qur'anic Hadith teaching, students are encouraged to achieve a balance between inner and outer development, the relationship between humans and their environment in social life, and their relationship with God (Mischler, 2021; Rohmansyah, 2020; Supraptiningsih & Bariyyah, 2019). In addition, it is expected that students will have a high degree that exceeds other creatures as a result of the study of Al-Qur'an Hadith.

Teachers usually often present material in a boring and monotonous way or that's all, according to observations found in interviews with teachers. According to (Tuwoso, 2022) believes that educators are the only source of knowledge. Students become less engaged, active and even less driven to learn as a result of this. In addition, they seem uninterested in the Qur'an Hadith learning approach that has been used so far. Teachers do not use interesting media during the teaching process. Only the blackboard and teaching materials are used by her.

The teacher does not use interesting media during the teaching process (Forrester et al., 2018; Miskiah et al., 2019; Xu et al., 2020) This is one of the reasons why students do not participate in class. Meanwhile, a teacher must be able to design learning effectively so that students play an active role and enjoy learning (Miskiah et al., 2019; Scott Kruse et al., 2018; Stanaway et al., 2018). This supports the idea that learning is at the center of the entire educational process. With regard to this scenario, the teacher assumes a leading role in addition to a number of student performances and actions based on the reciprocal relationships that take place in an educational setting to achieve certain goals, because according to (Cheng et al., 2018; Rohmansyah, 2020; Sidhu et al., 2018) where interaction or reciprocal relationships between teachers and students are the main requirements for the teaching and learning process to take place.

Media plays an important role in the implementation of learning because in these activities the use of media as an intermediary can help reduce the confusion of the material offered (Champion et al., 2020; Dwivedi et al., 2021; Ma et al., 2019). With the help of media, difficult material that must be taught to students can be simplified. Teaching aids include all resources that can be utilized to assist students in learning to be more effective and efficient, including media. With these tools, it is expected that learning will be more interesting, concrete, understandable, efficient with time and resources, and produce satisfactory learning (Pahayahay & Khalili-Mahani, 2020; Stanaway et al., 2018).

Computers are one of the tools that can be utilized to encourage students' interest in learning (Young et al., 2018). The rapid advancement of technology in the contemporary global era, especially in relation to computers, has an impact on how the field of education develops. These developments can have a beneficial or negative

impact. For example, a beneficial influence is the ability of students with computers. It is easy to find various science-related materials as well as various learning resources, such as powerpoints and others.

The use of computers or laptops in learning Al-Qur'an Hadith can significantly increase students' chances of becoming more motivated and open to interactive learning, developing their cognitive thinking skills, improving their psychomotor skills, and developing their interest in learning or affective. This is strongly supported by the opinion of the author (Champion et al., 2020; Güneş et al., 2019; Indrawan et al., 2018). The environment will undoubtedly have an impact on how students develop their thinking and life skills.

Based on the results of relevant research related to this study conducted by Suhartina Muammar, in 2018 in her article entitled Information technology-based learning media in increasing interest in learning akidah akhlak, she said that learning media is a tool that helps the learning process so that the messages conveyed become more accurate and the educational / learning objectives can increase the interest and motivation of students. Learning media has a lot of impact on the interest and motivation and even the interest of students. In achieving this, in education learning media technology is needed such as projectors and speakers. The development of educator creativity can also be called that an innovation that fosters interesting education from students.

Based on the previous explanation, several problems can be described which are the core of the discussion, namely: How is the use of learning media, interest in learning in seventh grade students, the application of learning media in improving student learning? interest in learning in students. Learning technology media here is defined as a tool or everything that can be used to channel stimulate messages, thoughts, attention, motivation, and willingness of students so as to encourage interest in learning with the results of increased grades and attendance.

RESEARCH METHODOLOGY

This research uses a qualitative approach and formulation, data collection is done by means of interviews, observation and documentation. Data analysis is obtained through data collection, data reduction, presentation and formulation of conclusions in accordance with recommendations by (Yii et al., 2021). The object under study is what learning media and methods are used by educators with innovation, creativity and mastery of educators towards the use of learning media to stimulate the mind, increase motivation, attract attention and willingness to learn students, especially in the subject of Qur'an Hadith.

By utilizing the theoretical basis that is owned, it makes researchers more aware of the truth that occurs in the field visited. In this study, asking questions in detail, then the subject will explain descriptively (Güneş et al., 2019; Yii et al., 2021). This method has a deductive sticker pattern, by understanding a phenomenon by using general

concepts to explain specific phenomena, then in qualitative methods it is hoped that researchers can find clues to problems in depth and thoroughly.

This research aims to express the results of the research process carried out by means of interviews so that researchers can get clear information in an observation. In this method, researchers use data analysis techniques using the core formulation of the problem. Researchers by way of direct interview to one of the teachers. This strategy was chosen because researchers get more accurate and more concrete information on subjects who experience the process directly. In this study, it requires an observation carried out by the researcher, which is to get a real realistic picture between characters and humans in order to understand the problems that really occur. This is emphasized by (Dwivedi et al., 2021) In capturing a truth not only by examining one subject, but two people of different positions to assess the views of two individuals.

The target of this research is to explore what media and what innovations educators make and even the ability of an educator to do it to increase the motivation and interest of students in the learning process. The method of data formulation with a directed interview that aims to explore specific information through a series of questions submitted by the researcher to the respondent. The interview was developed through character components that include a description of the concept of character education in schools. According to (Mischler, 2021; Yii et al., 2021) In addition to the skills developed and the innovations and creativity carried out by teachers in applying learning media, data analysis is a process of searching and organizing interview transcripts and other materials that have been collected by researchers.

Regarding data analysis techniques, data analysis is the process of finding and organizing interview transcripts, and other materials that have been collected by researchers. Analyzing activities are continued by reviewing data, arranging and dividing into units that can be managed properly. Search and find what is meaningful and what is researched and can be reported systematically. In other words, this data is a description of a person's statements about the media and its use. This data analysis is carried out in qualitative research carried out from the beginning of the research conducted by interviewing one of them to the end of the research by interacting with the research setting and subject in the context of collecting the data. This data analysis technique also aims to direct, classify, sharpen, discard unnecessary and organize data so that the final conclusion.

RESULT AND DISCUSSION

Learning that utilizes relevant and interesting media and methods is an effective and innovative learning system. A teacher must be able to use the right tools and techniques. It is evident from an interview with a Qur'an Hadith instructor who teaches grade VII on October 8, 2022, that the instructor is a skilled user of educational technology. The instructor claimed that she often projects movies, textbooks, photos and even common scribbles onto the blackboard and uses speakers and projectors to display them.

Based on the results of teacher observations and interviews on October 8, 2022, it shows that teachers use various methods and techniques in teaching and learning. The methods used by teachers are in addition to the method of advice or what is also called lecture, discussion or question and answer, as well as demonstration or practice. Meanwhile, the techniques used include: showing videos sourced from the internet or even homemade which are tailored to the learning theme. According to the teacher, in order for the learning process to be interesting, in addition to the methods and techniques used to vary, it must also be adjusted to the learning objectives to be achieved on the subject matter. The utilization of technology in learning media is very important.

Technology in education is very important because it can make learning easier and more comfortable. Using technology as a teaching tool can also make lessons more interesting and fun. This is in line with the idea that the main purpose of educational media is to increase students' enthusiasm for learning. An effective and motivating learning process, as well as the delivery of the message and content of the lesson at that time, will be greatly helped by the use of media at the teaching orientation stage as well. Learning media can increase student motivation and interest while facilitating learning, increasing understanding, presenting knowledge in an interesting and reliable way, and condensing material.

In order to achieve learning objectives, teachers must always be active in choosing learning methods, because the absorption capacity of students is very different, students with one another certainly have differences. This is where teachers are required to be selective in the selection of methods and the use of media so that students can absorb all subject matter, especially religious subjects because that is the subject that distinguishes between madrasah and other public schools so that it can be said that the learning is successful." The use of "media with varied methods and techniques is very necessary to achieve the desired goal, namely so that learning is not boring and of course attracts attention and can increase students' interest and motivation in learning.

Based on observations at the Junior High School, the facilities available are quite adequate. The supporting facilities and facilities in the form of media owned in this madrasah are whiteboards, pictures / posters, several computer units, LCDs, computer rooms and wifi. The Junior High School Principal also stated that, based on the research, the teaching and learning process can also take place outside the classroom by utilizing the surrounding environment. Learning activities will produce the best results if they are carried out by developing creative thinking skills, as well as problem-solving skills, and using the classroom as an interesting and fun learning environment, even storytelling. Active, creative, innovative, even fun learning is one of the learning methods that can be applied by educators.

Application of Learning Media

Based on the results of interviews with teachers and students of class VII of the Junior High School, it is known that most students state that they are always present and

actively participate in the learning process at school, and are supported by the results of interviews and documentation of the homeroom teacher in the form of student attendance lists per semester, showing that the frequency of attendance of class VII students is mostly always present in following the subject. The results of interviews with most seventh grade students and the results of observations by looking at student notes, it is known that almost all students try to complete their notes, because they already have a package book in a fairly complete discussion. Even so, there are still students whose notes are incomplete.

In addition, it was observed that students had a high level of courage in asking questions and actively participating in the training, both in the form of interactive question and answer sessions with the instructor and the implementation of group discussion forums. However, some students were less engaged in the execution, which made learning more difficult.

Gradually implemented the 2013 curriculum for religious studies in Junior High School. The curriculum places a strong emphasis on using the scientific approach as the current pedagogy in the classroom. The scientific method or method includes observing, questioning, thinking, trying and networking for all subjects. Appropriate media, such as movies, videos, pictures, or real objects related to the subject matter of the discipline being taught, are required to do this. Students will be more engaged and eager to fully contribute to the learning process in this way.

The frequent use of learning media such as VCD, LCD/Projector, computer, and television can be used to demonstrate the ability of the Al-Qur'an Hadis teacher to use media with various approaches and tactics. The use of learning media is closely related to the teacher's capacity to use various approaches and strategies, because without them, learning will appear monotonous and the media used will be less able to stimulate learning and promote knowledge, despite its sophistication and form. Based on direct observation of the learning process, teachers use a variety of approaches including lectures, debates, question and answer, and demonstrations to teach students Qur'an Hadith (Mischler, 2021; Rohmansyah, 2020; Rusydiyah et al., 2020).

Technology-enhanced learning resources are required for the study of the Qur'an Hadith to assist students in understanding the subject matter covered. Since the availability of facilities in the form of learning media will have an impact on the learning process, it is important to pay attention to the completeness of the media available in schools when using them for educational purposes. Based on the diversity of media owned by this madrasah, including audio, visual, audio visual media, and computer labs, the learning resources offered in the form of learning media are sufficient to support the success of learning Al-Qur'an Hadith (Ma et al., 2019; Rusydiyah et al., 2020; S. Zhang et al., 2018).

A welcoming environment is necessary for the teaching and learning process, students will be able to focus and enjoy their studies while doing so. The success of learning in the learning process is greatly influenced by students' desire to learn. Therefore, in order for students to maximally achieve learning objectives, tools or media

are needed that can improve students' quality as well as excitement and motivation. Nowadays, madrasah teachers often use technology to help them offer learning content that requires additional materials through appropriate media. Whether related to faith and belief, Qur'an Hadith is content that demands additional understanding. When learning is done using additional media, students will be able to optimize their understanding, learning will not feel boring, and students will become more active and creative. If the Qur'an Hadith that talks about good manners towards others is delivered in the form of a video related to the subject matter being taught, learning about it will be more fun. This is very important for the achievement of the learning process that is being carried out in class.

Students not only experience boredom if the learning method is monotonous applied by the teacher. Students are required to be active in accessing information in order to find videos that are in accordance with the material being taught. Junior High School has a wifi network that can be utilized by students, teachers, and employees. Of course this is very useful for student learning. They are free to access the internet by using the wifi network provided by Madrasah. Junior High School teachers utilize technology well. This is due to the high desire of students to follow education through information technology media.

This approach to using information technology for learning is very helpful and beneficial for students, especially when studying Al-Qur'an Hadith education. Learning assisted by contemporary tools or media, namely information technology-based media, improves the quality of learning and student interest in the study of Al-Qur'an Hadith Education. Students who were initially uninterested in the learning topic become more interested in learning. Junior High School Qur'an Hadith teachers use information technology learning media to access additional content which can be done inside or outside the classroom using computer facilities and LCD/projectors.

The online content is tailored to basic skills so that students are not inhibited in learning. In addition, teachers use power point media to present the material in the most interesting way, which facilitates delivery. This implies that learning media includes devices used to transmit instructional content, such as books, tape recorders, cassette players, video cameras, movies, slides and computers. In other words, media are part of learning resources or physical objects that house educational materials in a setting that encourages learning in students. Therefore, developing a great learning process is a major issue that educators must pay attention to. There are many factors that can influence the learning process to produce high-quality results. These factors include qualified instructors, instructional strategies, appropriate learning environments and situations, and the use of learning resources. This shows the value of media in the training and education process.

Qur'an Hadith teachers at the Junior High School use a variety of learning media and techniques inside and outside the classroom with the aim of improving students' understanding of the curriculum and fostering positive educational interactions. Teachers use various facilities in addition to technological tools such as computers and

projectors for their classroom lessons with students. Madrasahs as educational institutions must really pay attention to the learning process, and teachers as the person in charge of providing knowledge about each subject to students are expected to understand how to do it. The achievement of learning objectives cannot be separated from the media used by teachers, and in this era of globalization information technology is the most desirable learning media because it is considered more effective and efficient.

Curriculum planning is one of the best ways to improve education standards. In order for students to easily absorb information and apply it in their lives, the Wakamad who is responsible for developing the curriculum at the Junior High School must be very careful in considering their needs at all times. daily routine. As expressed by Mrs. Hartini Wati as a teacher that "Usually in learning, I utilize information technology such as power point, videos, pictures and other media. The content of the student module in learning must be adjusted by the teacher when using learning media with information technology in accordance with the basic skills applied. There are several media that show demonstrations of doing something, but not all media used by Al-Qur'an Hadith teachers are applied, for example the use of video media containing stories. Students can learn how to do something by watching the video shown, as long as they understand what they are supposed to do.

The use of information technology media can be done by accessing the internet at school or by preparing it at home. Many teachers already have applications that can be used as a tool to access the internet, so they are not bothered in accessing the internet, there are also wifi facilities that can be used in madrasah. Materials made with the help of internet access must be well prepared. Teachers must be able to select the material to be taught by adjusting the teaching material contained in the student module and not leaving the basic competencies taught. The material must also be designed as interesting and beautiful as possible, arranged using power point and equipped with sound to make it more interesting and make the class atmosphere more enthusiastic. If the material is non-verbal or in the form of a video, then the teacher must choose a video that is clear to see and that is interesting and efficient with the available learning time.

Utilizing technological learning media such as computers can assist the display of material using images, videos, sound and other elements through LCD projectors. To streamline the learning process, information technology is used in the classroom. The use of this technology is explained below. It involves utilizing available multimedia tools to simplify the tasks that students complete while the learning process is underway. For example, for formal presentations, instead of using clippings (cardboard papers) as in the past, presenters can now use LCD projectors and create more creative designs by using various multimedia contents, such as moving images, audio, and other subtitles. This is in accordance with the theory put forward by Hofstetter that using media is the use of computers to create and attach text, graphics, audio, and animated images while attaching links and other tools that allow users to navigate, interact, and collaborate. The teacher prepares the learning media in advance by designing power

points, videos that are in accordance with the learning material to be delivered so that the teaching and learning process is more interesting before starting the lesson. This is in accordance with the results of interviews with previous teachers as teachers have prepared the use of what media devices will be used by knowing the media first. In addition, before showing videos, power points, and slides to students. The interest of students is able to increase interest in learning, especially the study of Aqidah Ahlak This is the initial preparation made by the Aqidah Ahlak study field teacher, namely Mrs. Hartini Wati as a teacher at the Junior High School.

In applying learning media, it has sufficient facilities and infrastructure to support, such as computer laboratories and LCD projectors, but in utilizing information technology in learning, Junior High Schools still encounter obstacles, including funding or cost problems, and learning media that are electronic will be quickly damaged. This was expressed by: The main obstacle is cost, because it cannot be separated from the cost if it is going to add more information technology facilities, and the name of electronic goods is of course quickly damaged if those who use it are many people.

Utilizing technology such as LCD projectors, learning tools such as computers can help display content using images, videos, music and other features. In the classroom, information technology is used to accelerate the learning process this explains how this technology is used (Indrawan et al., 2018; S. Zhang et al., 2018; Zoph et al., 2018). This entails utilizing various existing multimedia technologies to make the tasks that students perform while the learning process is underway simpler. For example, presenters can now use LCD projectors and create more creative designs by using various multimedia contents, such as moving images, audio, etc., for formal presentations rather than using clippings (paperboard) as in the past. subtitles. This supports Hofstetter's hypothesis that using media refers to using computers to create and attach text, images, audio and video. According to the Principal of the Junior High School, the madrasah, in this case the Junior High School, is expected to be able to produce alumni who can be proud of in the community. Likewise, programs that make madrasahs more attractive to the community, such as activities related to religious events. In addition, coaching for teachers needs to be improved, teachers who excel and have innovation and creativity are an attraction for the community to enter their children in Madrasah. Things that need to be done according to the Principal of the Junior High School, namely; Improving the quality of material in the learning process, giving awards to outstanding teachers and students, increasing the use of methods or media.

Utilizing technology Learning aids such as computers can help display content by utilizing images, videos, music, and other features using LCD projectors. Information technology is applied in the classroom to accelerate the learning process. The use of these technologies is explained as follows. To facilitate the activities that students complete during the learning process, it is necessary to use some existing multimedia technologies. For example, instead of using clippings (paperboard) as in the past, presenters can now use LCD projectors and create more imaginative designs by using various multimedia information, such as moving images, sound, etc. subtitles. This

confirms the theory (Indrawan et al., 2018; Mischler, 2021; Shafique et al., 2020) that media usage refers to the creation and attachment of text, images, audio, and video using computers.

The use of better media, such as computers, LCD projectors, the internet, and other tools, should be expanded as a measure of improving the quality of education because it helps people achieve their goals. The use of these media changes depending on the lesson being taught so that students do not feel bored or repetitive. The results of this study indicate that the steps "carried out by teachers in Junior High School in the learning process by utilizing information technology media and coupled with the creativity of educators and even innovation to attract the interest and motivation of students. In this case, it shows that students are very enthusiastic and enthusiastic and even motivated in participating in learning, especially in classroom learning, this results in an increase in the scores and attendance of students.

CONCLUSION

Based on the research results that have been described in the discussion, it is concluded as follows: First, the utilization of information technology learning media in the Aqidah Ahlak learning process at the State Junior High School, all educators and education personnel have utilized information technology, but there are some things that still cannot be utilized optimally; Second, the utilization of information technology learning media in increasing learning interest and motivation at the Junior High School makes students very enthusiastic and motivated in classroom learning.

Indicators of increased student learning motivation can be seen from the increasing enthusiasm and enthusiasm of students in participating in teaching and learning activities, there is no apparent laziness and fatigue from the students' facial expressions, they always show a sense of joy and pleasure during the lesson.

REFERENCES

- Al-Fraihat, D., Joy, M., Masa'deh, R., & Sinclair, J. (2020). Evaluating E-learning systems success: An empirical study. *Computers in Human Behavior, 102*, 67–86. <https://doi.org/10.1016/j.chb.2019.08.004>
- Barrett, L. F., Adolphs, R., Marsella, S., Martinez, A. M., & Pollak, S. D. (2019). Emotional Expressions Reconsidered: Challenges to Inferring Emotion From Human Facial Movements. *Psychological Science in the Public Interest, 20*(1), 1–68. <https://doi.org/10.1177/1529100619832930>
- Bernheim, A., Mei, X., Huang, M., Yang, Y., Fayad, Z. A., Zhang, N., Diao, K., Lin, B., Zhu, X., Li, K., Li, S., Shan, H., Jacobi, A., & Chung, M. (2020). Chest CT Findings in Coronavirus Disease-19 (COVID-19): Relationship to Duration of Infection. *Radiology, 295*(3), 200463. <https://doi.org/10.1148/radiol.2020200463>
- Champion, K. E., Gardner, L. A., McGowan, C., Chapman, C., Thornton, L., Parmenter, B., McBride, N., Lubans, D. R., McCann, K., Spring, B., Teesson, M., The Health4Life Team, & Newton, N. C. (2020). A Web-Based Intervention

- to Prevent Multiple Chronic Disease Risk Factors Among Adolescents: Co-Design and User Testing of the Health4Life School-Based Program. *JMIR Formative Research*, 4(7), e19485. <https://doi.org/10.2196/19485>
- Cheng, G., Yang, C., Yao, X., Guo, L., & Han, J. (2018). When Deep Learning Meets Metric Learning: Remote Sensing Image Scene Classification via Learning Discriminative CNNs. *IEEE Transactions on Geoscience and Remote Sensing*, 56(5), 2811–2821. <https://doi.org/10.1109/TGRS.2017.2783902>
- Chick, R. C., Clifton, G. T., Peace, K. M., Propper, B. W., Hale, D. F., Alseidi, A. A., & Vreeland, T. J. (2020). Using Technology to Maintain the Education of Residents During the COVID-19 Pandemic. *Journal of Surgical Education*, 77(4), 729–732. <https://doi.org/10.1016/j.jsurg.2020.03.018>
- De', R., Pandey, N., & Pal, A. (2020). Impact of digital surge during Covid-19 pandemic: A viewpoint on research and practice. *International Journal of Information Management*, 55, 102171. <https://doi.org/10.1016/j.ijinfomgt.2020.102171>
- Dwivedi, Y. K., Hughes, L., Ismagilova, E., Aarts, G., Coombs, C., Crick, T., Duan, Y., Dwivedi, R., Edwards, J., Eirug, A., Galanos, V., Ilavarasan, P. V., Janssen, M., Jones, P., Kar, A. K., Kizgin, H., Kronemann, B., Lal, B., Lucini, B., ... Williams, M. D. (2021). Artificial Intelligence (AI): Multidisciplinary perspectives on emerging challenges, opportunities, and agenda for research, practice and policy. *International Journal of Information Management*, 57, 101994. <https://doi.org/10.1016/j.ijinfomgt.2019.08.002>
- Ferentinos, K. P. (2018). Deep learning models for plant disease detection and diagnosis. *Computers and Electronics in Agriculture*, 145, 311–318. <https://doi.org/10.1016/j.compag.2018.01.009>
- Forrester, S. J., Kikuchi, D. S., Hernandez, M. S., Xu, Q., & Griendling, K. K. (2018). Reactive Oxygen Species in Metabolic and Inflammatory Signaling. *Circulation Research*, 122(6), 877–902. <https://doi.org/10.1161/CIRCRESAHA.117.311401>
- Güneş, F. E., Bekiroglu, N., Imeryuz, N., & Agirbasli, M. (2019). Awareness of cardiovascular risk factors among university students in Turkey. *Primary Health Care Research & Development*, 20, e127. <https://doi.org/10.1017/S146342361900063X>
- Hermawan, B., & Rahyono, F. X. (2019). Ideational meanings of science and interpersonal position of readers in science textbooks for basic level in Indonesia. *Indonesian Journal of Applied Linguistics*, 9(1). <https://doi.org/10.17509/ijal.v9i1.15932>
- Indrawan, G., Paramarta, I. K., Agustini, K., & Sariyasa, S. (2018). Latin-to-Balinese Script Transliteration Method on Mobile Application: A Comparison. *Indonesian Journal of Electrical Engineering and Computer Science*, 10(3), 1331. <https://doi.org/10.11591/ijeecs.v10.i3.pp1331-1342>

- Iyer, P., Aziz, K., & Ojcius, D. M. (2020). Impact of COVID-19 on dental education in the United States. *Journal of Dental Education*, 84(6), 718–722. <https://doi.org/10.1002/jdd.12163>
- Jing, L., & Tian, Y. (2021). Self-Supervised Visual Feature Learning With Deep Neural Networks: A Survey. *IEEE Transactions on Pattern Analysis and Machine Intelligence*, 43(11), 4037–4058. <https://doi.org/10.1109/TPAMI.2020.2992393>
- Kim, S., Chen, J., Cheng, T., Gindulyte, A., He, J., He, S., Li, Q., Shoemaker, B. A., Thiessen, P. A., Yu, B., Zaslavsky, L., Zhang, J., & Bolton, E. E. (2019). PubChem 2019 update: Improved access to chemical data. *Nucleic Acids Research*, 47(D1), D1102–D1109. <https://doi.org/10.1093/nar/gky1033>
- Lawrence, J. E., & Tar, U. A. (2018). Factors that influence teachers' adoption and integration of ICT in teaching/learning process. *Educational Media International*, 55(1), 79–105. <https://doi.org/10.1080/09523987.2018.1439712>
- Ma, Y., Hao, Y., Chen, M., Chen, J., Lu, P., & Košir, A. (2019). Audio-visual emotion fusion (AVEF): A deep efficient weighted approach. *Information Fusion*, 46, 184–192. <https://doi.org/10.1016/j.inffus.2018.06.003>
- Mischler, Æ. (2021). Indexing the translation of Fath al-Bari, a multi-volume Islamic classic. *The Indexer: The International Journal of Indexing*, 39(2), 165–182. <https://doi.org/10.3828/indexer.2021.17>
- Miskiah, M., Suryono, Y., & Sudrajat, A. (2019). INTEGRATION OF INFORMATION AND COMUNICATION TECHNOLOGY INTO ISLAMIC RELIGIOUS EDUCATION TEACHER TRAINING. *Jurnal Cakrawala Pendidikan*, 38(1), 130–140. <https://doi.org/10.21831/cp.v38i1.23439>
- M.J, F. R., & Hanggara, Y. (2019). PENERAPAN MODEL PEMBELAJARAN JIGSAW DAN KANCING GEMERINCING DITINJAU DARI MINAT BELAJAR TERHADAP HASIL BELAJAR SISWA KELAS VIII SMP MONDIAL BATAM. *PYTHAGORAS: Jurnal Program Studi Pendidikan Matematika*, 8(2). <https://doi.org/10.33373/pythagoras.v8i2.1904>
- Molinillo, S., Aguilar-Illescas, R., Anaya-Sánchez, R., & Vallespín-Arán, M. (2018). Exploring the impacts of interactions, social presence and emotional engagement on active collaborative learning in a social web-based environment. *Computers & Education*, 123, 41–52. <https://doi.org/10.1016/j.compedu.2018.04.012>
- Murwantini, S. M., Soenarto, S., & Sukardi, T. (2021). Evaluation of Curriculum Implementation at Vocational High Schools in Palangkaraya. *The International Journal of Assessment and Evaluation*, 29(1), 17–25. <https://doi.org/10.18848/2327-7920/CGP/v29i01/17-25>
- Pahayahay, A., & Khalili-Mahani, N. (2020). What Media Helps, What Media Hurts: A Mixed Methods Survey Study of Coping with COVID-19 Using the Media Repertoire Framework and the Appraisal Theory of Stress. *Journal of Medical Internet Research*, 22(8), e20186. <https://doi.org/10.2196/20186>

- Pakatchi, A. (2020). Shi'ism. In D. W. Brown (Ed.), *The Wiley Blackwell Concise Companion to the Hadith* (1st ed., pp. 281–294). Wiley. <https://doi.org/10.1002/9781118638477.ch14>
- Parikhin, P. (2018). Pembelajaran Kooperatif STAD untuk Meningkatkan Kualitas Pembelajaran Praktik Kelistrikan SMK (Studi pada SMK Sriwijaya Karangpucung). *Automotive Experiences*, 1(02), 53–57. <https://doi.org/10.31603/ae.v1i02.2249>
- Radianti, J., Majchrzak, T. A., Fromm, J., & Wohlgenannt, I. (2020). A systematic review of immersive virtual reality applications for higher education: Design elements, lessons learned, and research agenda. *Computers & Education*, 147, 103778. <https://doi.org/10.1016/j.compedu.2019.103778>
- Rinninella, E., Raoul, P., Cintoni, M., Franceschi, F., Miggiano, G., Gasbarrini, A., & Mele, M. (2019). What is the Healthy Gut Microbiota Composition? A Changing Ecosystem across Age, Environment, Diet, and Diseases. *Microorganisms*, 7(1), 14. <https://doi.org/10.3390/microorganisms7010014>
- Rohmansyah, R. (2020). Understanding of Polygamy in the Qur'anic Text, Hadith Text, and Biblical Text. *AL-IHKAM: Jurnal Hukum & Pranata Sosial*, 14(2), 317–336. <https://doi.org/10.19105/al-lhkam.v14i2.2529>
- Rusydiah, E. F., Purwati, E., & Prabowo, A. (2020). HOW TO USE DIGITAL LITERACY AS A LEARNING RESOURCE FOR TEACHER CANDIDATES IN INDONESIA. *Jurnal Cakrawala Pendidikan*, 39(2), 305–318. <https://doi.org/10.21831/cp.v39i2.30551>
- Sagi, O., & Rokach, L. (2018). Ensemble learning: A survey. *WIREs Data Mining and Knowledge Discovery*, 8(4). <https://doi.org/10.1002/widm.1249>
- Scott Kruse, C., Karem, P., Shifflett, K., Vegi, L., Ravi, K., & Brooks, M. (2018). Evaluating barriers to adopting telemedicine worldwide: A systematic review. *Journal of Telemedicine and Telecare*, 24(1), 4–12. <https://doi.org/10.1177/1357633X16674087>
- Shafique, K., Khawaja, B. A., Sabir, F., Qazi, S., & Mustaqim, M. (2020). Internet of Things (IoT) for Next-Generation Smart Systems: A Review of Current Challenges, Future Trends and Prospects for Emerging 5G-IoT Scenarios. *IEEE Access*, 8, 23022–23040. <https://doi.org/10.1109/ACCESS.2020.2970118>
- Sheikholeslami, M., Haq, R., Shafee, A., & Li, Z. (2019). Heat transfer behavior of nanoparticle enhanced PCM solidification through an enclosure with V shaped fins. *International Journal of Heat and Mass Transfer*, 130, 1322–1342. <https://doi.org/10.1016/j.ijheatmasstransfer.2018.11.020>
- Sheth, J. (2020). Impact of Covid-19 on consumer behavior: Will the old habits return or die? *Journal of Business Research*, 117, 280–283. <https://doi.org/10.1016/j.jbusres.2020.05.059>
- Sidhu, G. K., Kaur, S., & Chi, L. J. (2018). CEFR-aligned school-based assessment in the Malaysian primary ESL classroom. *Indonesian Journal of Applied Linguistics*, 8(2). <https://doi.org/10.17509/ijal.v8i2.13311>

- Stanaway, J. D., Afshin, A., Gakidou, E., Lim, S. S., Abate, D., Abate, K. H., Abbafati, C., Abbasi, N., Abbastabar, H., Abd-Allah, F., Abdela, J., Abdelalim, A., Abdollahpour, I., Abdulkader, R. S., Abebe, M., Abebe, Z., Abera, S. F., Abil, O. Z., Abraha, H. N., ... Murray, C. J. L. (2018). Global, regional, and national comparative risk assessment of 84 behavioural, environmental and occupational, and metabolic risks or clusters of risks for 195 countries and territories, 1990–2017: A systematic analysis for the Global Burden of Disease Study 2017. *The Lancet*, 392(10159), 1923–1994. [https://doi.org/10.1016/S0140-6736\(18\)32225-6](https://doi.org/10.1016/S0140-6736(18)32225-6)
- Supraptiningsih, U., & Bariyyah, K. (2019). Marriage Settlement among Minority Moslem by Datok Imam Masjid in South Thailand. *AL-IHKAM: Jurnal Hukum & Pranata Sosial*, 14(2), 221–236. <https://doi.org/10.19105/al-lhkam.v14i2.2631>
- Susanti, F., Junaedi, D., & Effendy, V. (2019). Communication Learning User Interface Model for Children with Autism with the Goal-Directed Design Method. *2019 7th International Conference on Information and Communication Technology (ICoICT)*, 1–6. <https://doi.org/10.1109/ICoICT.2019.8835395>
- Suswanto, H., Aziz, F. K., Ningrum, G. D. K., & Hamdan, A. (2021). The Development of A PHP-Based Instrument for Attitude Assessment of Learning Outcomes to Improve the Achievement Efficiency of Computer and Network Engineering Students in SMK Negeri 7 Malang. *2021 7th International Conference on Electrical, Electronics and Information Engineering (ICEEIE)*, 1–5. <https://doi.org/10.1109/ICEEIE52663.2021.9616655>
- Tuwoso, T. (2022). *Comparison of learning outcomes in metal casting subject using traditional learning model with problem-base learning through SIPEJAR*. 030017. <https://doi.org/10.1063/5.0093862>
- Xu, B., Chen, N.-S., & Chen, G. (2020). Effects of teacher role on student engagement in WeChat-Based online discussion learning. *Computers & Education*, 157, 103956. <https://doi.org/10.1016/j.compedu.2020.103956>
- Yang, Y., Lu, Y., Yang, L., Gou, Z., & Zhang, X. (2020). Urban greenery, active school transport, and body weight among Hong Kong children. *Travel Behaviour and Society*, 20, 104–113. <https://doi.org/10.1016/j.tbs.2020.03.001>
- Yii, J., Mahmud, A., Abd Samat, A. H., Sabardin, D. M., Mohd Isa, M. H., Mohd Saiboon, I., & Jaafar, M. J. (2021). A Qualitative Study on Emergency Healthcare Worker (EHCW) Perception towards COVID-ACLS Simulation Training in Resuscitating Suspected COVID-19 Patients. *Sains Malaysiana*, 50(9), 2847–2858. <https://doi.org/10.17576/jsm-2021-5009-27>
- Young, T., Hazarika, D., Poria, S., & Cambria, E. (2018). Recent Trends in Deep Learning Based Natural Language Processing [Review Article]. *IEEE Computational Intelligence Magazine*, 13(3), 55–75. <https://doi.org/10.1109/MCI.2018.2840738>

- Zhang, C., Yang, L., Liu, S., Ma, S., Wang, Y., Cai, Z., Du, H., Li, R., Kang, L., Su, M., Zhang, J., Liu, Z., & Zhang, B. (2020). Survey of Insomnia and Related Social Psychological Factors Among Medical Staff Involved in the 2019 Novel Coronavirus Disease Outbreak. *Frontiers in Psychiatry*, *11*, 306. <https://doi.org/10.3389/fpsyt.2020.00306>
- Zhang, L., Wang, S., & Liu, B. (2018). Deep learning for sentiment analysis: A survey. *WIREs Data Mining and Knowledge Discovery*, *8*(4). <https://doi.org/10.1002/widm.1253>
- Zhang, S., Zhang, S., Huang, T., Gao, W., & Tian, Q. (2018). Learning Affective Features With a Hybrid Deep Model for Audio–Visual Emotion Recognition. *IEEE Transactions on Circuits and Systems for Video Technology*, *28*(10), 3030–3043. <https://doi.org/10.1109/TCSVT.2017.2719043>
- Zoph, B., Vasudevan, V., Shlens, J., & Le, Q. V. (2018). Learning Transferable Architectures for Scalable Image Recognition. *2018 IEEE/CVF Conference on Computer Vision and Pattern Recognition*, 8697–8710. <https://doi.org/10.1109/CVPR.2018.00907>

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