

## Strategy for Developing Student Cognitive Aspects: Internet-Based Islamic Education Learning Innovation During the COVID-19 Pandemic

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### Abstract

*The purpose of this study is strategy for developing student cognitive aspects of internet-based islamic education learning innovation during the coronavirus disease 2019 (COVID-19) pandemic. The research approach used in this research is qualitative research, while the type of research is a case study. The research location uses a multi-case study, namely MTs Hasyim Asy'ari Batu City and MAN 01 Malang City. There are two types of data and sources of data in this study, namely primary and secondary data. The data analysis technique used in this study is the Miles, Hiberman, and Saldana model. The results show that internet-based islamic education learning innovation during the coronavirus disease 2019 (COVID-19) pandemic is to evaluate learning, foster student learning motivation, provide feedback in learning as well as teacher creativity and innovation in using models and methods.*

### Keywords

student; cognitive; islamic education; learning; innovation



## I. Introduction

There are several problems in implementing the learning process in choosing the media and methods to be applied, some of which are that there are some educators who still use conventional learning methods in PAI learning who only use traditional learning methods which generally in learning the teacher explains and students only listen, the process this kind of learning then in its implementation sometimes students will feel bored, sleepy and busy themselves, as a result the learning process like this does not run optimally and makes students who are more inclined to be ignorant, do not dare to argue, make students' knowledge of the material still very low less, especially this has an impact on some students who have not been able to meet the KKM (Baharun, 2015). Learning activities must really be designed as well as possible starting from the preparation and planning that must be done by educators, implementation to evaluation in learning, especially specifically in PAI learning.

Based on the above explanation related to learning promblematics in PAI material, it is necessary to have innovations in PAI learning, one of which is by applying internet-based PAI learning by applying internet media in PAI learning is a new breakthrough to be able to solve all the problems that exist in PAI learning so that if educators able to create a creative learning atmosphere, the goals of PAI learning will be achieved and realized, and of course educators in implementing internet-based learning must be able to design according to the shape and condition of the existing facilities at the school as well as according to the needs of existing students.

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## II. Review of Literature

### 2.1 The Nature of Learning Resources and Media

There are several components that can be a support or support for these learning resources, namely (Hafid, 2011):

- a. Messages in the form of content of information in conveying subject matter which must then be forwarded through human intermediaries, in this case is a teacher, these messages can then be channeled through ideas, data, field facts and so on.
- b. The second component is that an intermediary is needed in conveying the message, namely through humans or more specifically, namely a teacher as the person responsible for conveying the message, in addition to conveying the material or message in the lesson, there are several duties of a teacher to the message of the lesson itself, namely the teacher as a repository message and message manager.
- c. The next component is the existence of tools that can be used by teachers as teacher assistants in conveying the message, after the teacher is able to store and manage messages, the next step in conveying messages to students must be tools that can be used to convey these messages, such as utilizing technological sophistication. Therefore, the teacher must be able to adapt his competence to every development of the times, one of which must master technology.
- d. The last component is the existence of a procedure or reference technique that is really prepared to be a reference in carrying out learning, all kinds of learning plans, especially in particular, RPP can be a reference and teacher assistance in all the components mentioned above.

Learning media has a very important role in conveying a subject matter in the process of learning activities and can also help and clarify educators in delivering subject matter. Regarding media which has a big role in a learning process, in fact the media initially only had a function to help students understand a lesson, in this case students were motivated and helped by the media in understanding abstract subject matter then it became very clear and very easy to understand if the teacher can use the media, therefore it can be said that the media is a tool that can help and motivate students in understanding so that with the existence of learning media the initial educational goals that have been planned will be achieved optimally (Sanjaya, 2010).

Learning process that uses strategies to understand students through image approaches and visual approaches and verbal or verbal approaches and then concludes that this visual approach can be used in lessons that are more inclined to require students to recognize and recall with this visual approach lessons that remember and recognize the results will be better, while the verbal approach can be used for lessons that require students to memorize or remember sequentially because the results will also be better if using a verbal approach, this is then support the theory that has been expressed by which says that there are two human memory systems that can be used and utilized by teachers for students to understand the lessons that have been delivered, the two memory systems are But is visual memory and verbal memory, both of which help humans to remember and store their memories.

Learning memory that uses multiple senses as well as both senses of sight and senses with the theory described above has a high level of understanding in understanding a subject matter, this of course, if it can be used as well as possible for students, it will certainly be an advantage for students. Students rather than using only one of the two senses. In using the multiple senses in the process of distributing a learning material, there are several expert views regarding the comparison of the level of understanding achieved

by students through these dual senses, it was revealed that there are approximately 90% of a person's learning outcomes obtained through the sense of sight, and only about 5% more with the senses other. In addition, there is also an opinion expressed by Dale (1969) who later revealed that there is an acquisition of learning outcomes that can be obtained through the sense of sight around 75%, as well as when through the sense of hearing about 13%, and the last one obtained through the other senses is only about 12%.

In the theory of the cone of experience, it can be explained that the higher the learning strategy used by the teacher, the more abstract it will be, but on the contrary, the lower it is, the more concrete it will be. Thus students will be more stimulated in using all the senses they have in understanding a message conveyed by the educator.

## **2.2 ICT-Based PAI Learning**

Islamic religious education learning is one of the subjects that must be studied by every student from elementary school, junior high school, and high school, PAI subjects are mandatory lessons in every school which in public schools has 2 hours of learning per week, unlike the case with religion-based schools, PAI learning is much wider in scope and the lesson hours as well as the difference lies in the PAI learning curriculum, learning innovations are expected to be able to help teachers and students understand all forms of learning in PAI material. PAI learning is very important in shaping the character of students and will be very important in the daily lives of students in their environment, therefore PAI learning is expected to be a great provision or motivation for each student, therefore educators have a big role in providing and deliver PAI material to students, educators must be able to create continuous innovation in the implementation of PAI learning.

There are problems that exist in PAI learning which so far are often encountered by teachers in PAI learning, Dudung in his book argues that the problems that lie in PAI learning include: there are errors in interpreting religion, paradigm errors used by teachers in religious learning and lastly, the problem lies in the purpose of religious learning itself, in practice religion is only interpreted as a reading ritual, but it is rare for teachers to explain every essential that exists, moreover if it is understood in depth, religion is not only rituals and readings but Religion can be interpreted as the character or behavior of humans on this earth, which then can form humans who have noble and good morals and are able to create humans who believe in their God and can take responsibility for everything that has been taught he did the next day (Hidayat, 2007).

Based on the above explanation related to learning promblematics in PAI material, it is necessary to have innovations in PAI learning, one of which is by applying ICT-based PAI learning by applying ICT media in PAI learning is a new breakthrough to be able to solve all the problems that exist in PAI learning so that if educators able to create a creative learning atmosphere, the goals of PAI learning will be achieved and realized, and of course educators in implementing ICT-based learning must be able to design according to the shape and condition of the existing facilities at the school as well as according to the needs of existing students.

### III. Research Method

The research approach used in this research is qualitative research, while the type of research is a case study. The presence of researchers in research is the most important thing in carrying out case study research (Asyraini et al., 2022; Oativa, 2018; Pandiangan, 2015).

The research location uses a multi-case study, namely MTs Hasyim Asy'ari Batu City and MAN 01 Malang City.

There are two types of data and sources of data in this study, namely primary and secondary data. Primary data is data obtained through data collection with observation instruments carried out in the field to find facts (Oativa et al., 2021; Pandiangan et al., 2021; Pandia et al., 2018). Interviews were conducted with the vice principal for curriculum affairs, three teachers, and three students. Documentation which is secondary data is used to complement and support the primary data (Oativa et al., 2018; Pandiangan, 2018).

The data analysis technique used in this study is the Miles, Hiberman, and Saldana model, namely the analysis in qualitative research which is carried out interactively and continues until it is complete (Pandiangan et al., 2022; Tobing et al., 2018). In checking the validity of the data in this study, three methods were used, namely: extension of observation, persistence of observation, triangulation of sources, and technique (Pandiangan et al., 2018; Pandiangan, 2022).

### IV. Results and Discussion

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##### **a. Evaluate Learning**

MTs Hasyim Asy'ari Batu City in making improvements to the implementation of online learning during the coronavirus disease 2019 (COVID-19) pandemic by holding an evaluation meeting which was conducted offline with educators at madrasas, in an effort to make improvements to the implementation of online learning MTs Hasyim Asy'ari Batu City held a meeting evaluation carried out every month.

In accordance with what SS as the vice principal for curriculum affairs said "In an effort to make improvements in the process of implementing online learning we hold regular meetings which are held once a month and we conduct these meetings offline and with a limited number of meeting participants also by complying with health protocols, in meetings In this case, we always discuss how the condition of each teacher in conducting online learning is whether there are obstacles and so on, especially in the use of e-learning because in its use there are some elderly teachers who do not really understand it, so the solution is to provide special facilities and guidance to teachers who already old people who still don't really understand the use of the application."

Online learning during the COVID-19 period is a learning activity that must be faced by every educational institution in Indonesia, in its implementation online learning really must be considered by the government, especially the educational institution itself, so that in its implementation it goes well, there must be continuous improvement. Significantly, MAN 01 Malang City in an effort to improve the online learning process is carried out once a month to evaluate the online learning process.

As said by Y as the vice principal for curriculum affairs MAN 01 Malang City through interviews conducted it was said that "For the meetings we do during distance learning we do it every month which of course is also done via virtual using the zoom

application, in the meeting we always discuss how the condition of each teacher in conducting online learning, especially on the use of e-learning because in its use there are some elderly teachers who do not really understand it, so the solution is to provide special facilities and guidance to older teachers who still do not really understand the use of the application."

#### **b. Foster Student Learning Motivation**

To be a motivational material for students to continue studying while at home, MTs Hasyim Asy'ari through meetings at the beginning of the COVID-19 pandemic has a special program that supports the implementation of online learning in realizing the level of understanding of the moral aqidah material, namely the school has prepared a student activity monitoring book, in the monitoring book. There are several assessments that can assess students regarding student learning activities at home and how student literacy activities are at home.

This is in accordance with what KK said that "During online learning activities take place MTs Hasyim Asy'ari Batu City has a student activity monitoring book to assist teachers in monitoring student activities while at home student learning activities, therefore, through this monitoring book, we hope that students will continue to actively study independently at home, for the assessment in the monitoring book is carried out by the parents of the students, therefore we as teachers always coordinate with the parents of students."

Learning motivation is one of the driving forces for students to have more enthusiasm in learning as well as a source of learning motivation for students that comes from within themselves and also comes from encouragement given by others, one of which is motivation that comes from other people, which comes from a person teachers, during online learning students really need motivation from the teachers considering that in this case students must be able to learn more independently at home.

MAN 01 in the teaching process only chooses the essential material which is explained and taught to students and the rest of the students are required to be able to study independently at home, as said by IHP, the akidah moral teacher "In the implementation of the online learning process which in madrasas we apply a special curriculum namely distinguishing essential and non-essential material and only essential material being taught to students, while non-essential subject matter students must study at home independently, therefore students must be able to take advantage of the time at home to study, we as teachers so that students can taking and choosing the right study time we always give advice and motivation to students in every learning activity, i usually insert it at the end of the meeting."

In an effort to realize learning time and student learning motivation, in the implementation of online learning it is necessary to have more in-depth guidance from teachers, especially to help students understand the subject matter, guidance activities for students during online learning is a very important activity considering the interaction between teachers and students only through e-learning media, therefore the teacher must really be able to guide students in understanding the subject matter, at MTs Hasyim Asy'ari the guidance activities are carried out by the teacher after the online learning process takes place through the results of observations made class in class VII A with material on the attributes of God in guiding students the teacher conducts guidance through the WA group of subjects that have been made, after the teacher conducts opening activities in online learning activities in observations made by researchers the teacher enters the core activity with discussion of the subject briefly through e-learning media.

During the COVID-19 pandemic where learning activities are carried out online, more awareness is needed for every teacher and parent of students to take the time to guide their children in understanding the subject matter that has been taught by the teacher, therefore collaboration and coordination between parents and teachers must be built as well as possible to be able to provide guidance to students while at home.

As said by IHP, one of the teachers at MAN 01 Malang City "In this pandemic period, of course, the teacher's role in realizing the level of student understanding is very large considering that learning is only done online, so i say that the teacher's role is very large in guiding students in learning activities. teaching, not only that at times like this it is not only the role of the teacher that is great but the role of parents is greater than the teacher sees students are always at home, therefore coordination and cooperation between teachers and parents of students is needed in guiding students in understanding the lesson as a teacher, we have prepared a group for the guardians of the students as a form of coordination and cooperation with the parents of students, even if there is a headache, i usually answer it too."

### **c. Provide Feedback in Learning**

Feedback is a behavior carried out by the teacher to help students who have difficulty in learning by responding to the results of student work so that students can better understand and master the material that has been conveyed by the teacher, in realizing the level of students' understanding of the moral aqidah material which is the task of the teacher every teacher, one way in an effort to maintain students' understanding of a material is by providing feedback in learning, the teacher can do this by reminding students back to the material that has been taught, and discussing the results of daily assignments that have been done by students about the material previously.

In accordance with what NL said, one of the moral aqidah teachers "To find out the extent of understanding students get on the material i teach i give students daily assignments then from the results of these assignments i can find out the results obtained by students so that they can continue to improve it, before starting new material in online learning activities i provide a little explanation or it could be by asking some questions related to the previous material, after that i give an explanation, especially in terms of errors from the results of daily assignments that have been done by previous students."

In accordance with the observations obtained, namely at 7.10 the teacher starts the lesson which begins by recalling the material that has been conveyed by the teacher in last week's lesson to students by asking two questions related to last week's material to students and students answering them well, then the teacher discusses the results of student performance related to the daily tasks given in the previous material.

### **d. Teacher Creativity and Innovation in Using Models and Methods**

MAN 01 Malang City through a meeting held at the beginning of COVID-19 to formulate and decide to use an emergency curriculum, in line with what was conveyed by Y as the vice principal for curriculum affairs "In the implementation of online learning we use a special curriculum, namely the emergency curriculum, considering that in its implementation online learning is different from In the implementation of face-to-face learning, the special curriculum is that the teacher must prepare and choose between essence material and non-essential material which later in the implementation of online learning the teacher only has an obligation to convey the essential material, then for non-essential material students are encouraged to study it themselves and consult with their respective parents at home."

In the implementation of core activities through the results of observations made in learning activities to provide clarity to students regarding the material i explained, the first thing i did was to encourage students to think well by sharing pictures related to the material they were going to learn that day this is done to be able to stimulate students to be able to think well, then after several students provide explanations related to the images that i share then i explain about the material to be studied.

## V. Conclusion

The results show that internet-based islamic education learning innovation during the coronavirus disease 2019 (COVID-19) pandemic is to evaluate learning, foster student learning motivation, provide feedback in learning as well as teacher creativity and innovation in using models and methods.

## References

- Asyraini, Siti, Fristy, Poppy, Otiva, Cut Susan, Nasution, M. Hafiz Akbar, & Nursidin, M. (2022). Peningkatan Kesadaran Protokol Kesehatan di Masa Pandemi Bagi Warga di Desa Selamat Kecamatan Biru-biru. *Jurnal Pengabdian Kontribusi (Japsi)*, 2(1), 33-36.
- Baharun, Hasan. (2015). Penerapan Pembelajaran Active Learning Untuk Meningkatkan Hasil Belajar Siswa di Madrasah. *Jurnal Pendidikan*, 2.
- Dale, Edgar. (1969). *Audio Visual Methods in Teaching*. New York: Holt, Rinehartand Winston Inc. The Dryden Press.
- Hafid, Abd. (2011). Sumber dan Media Pembelajaran. *Jurnal Sulesana*, 2, 71-70.
- Hidayat, Dudung Rahmat. (2007). *Pendidikan Agama, Urgensi dan Tantangan*. Bandung: PT. Intima.
- Otiva, Cut Susan. (2018). *Pengaruh Pengadukan pada Campuran Limbah Cair Pabrik Kelapa Sawit dan Tandan Kosong Kelapa Sawit terhadap Produksi Biogas*. Tesis. Medan: Fakultas Teknik, Program Studi Teknik Kimia, Universitas Sumatera Utara. <https://repositori.usu.ac.id/bitstream/handle/123456789/12180/157022002.pdf?sequence=1&isAllowed=y>.
- Otiva, C. S., Irvan, Sarah, M., Trisakti, B., & Daimon, H. (2018). Production of Biogas from Co-digestion of Empty Fruit Bunches (EFB) with Palm Oil Mill Effluent (POME): Effect of Mixing Ratio. *Rasayan J. Chem.*, 11(2), 791-797.
- Otiva, Cut Susan, Indriyani, & Santoso, Ari Beni. (2021). Effect of Stirring Co-digestion of Palm Oil and Fruith for Biogas Production to Increase Economy Benefit. *Budapest International Research and Critics Institute-Journal*, 4(4), 14152-14160. DOI: <https://doi.org/10.33258/birci.v4i4.3521>.
- Pandia, S., Tanata, S., Rachel, M., Otiva, C., & Sialagan, N. (2018). Effect of Fermentation Time of Mixture of Solid and Liquid Wastes from Tapioca Industry to Percentage Reduction of TSS (Total Suspended Solids). *IOP Conference Series: Materials Science and Engineering*, 309, 012086. DOI: 10.1088/1757-899X/309/1/012086.
- Pandiangan, Saut Maruli Tua. (2015). *Analisis Lama Mencari Kerja Bagi Tenaga Kerja Terdidik di Kota Medan*. Skripsi. Medan: Fakultas Ekonomi dan Bisnis, Program Studi Ekonomi Pembangunan, Universitas Sumatera Utara. [https://www.academia.edu/52494724/Analisis\\_Lama\\_Mencari\\_Kerja\\_Bagi\\_Tenaga\\_Kerja\\_Terdidik\\_di\\_Kota\\_Medan](https://www.academia.edu/52494724/Analisis_Lama_Mencari_Kerja_Bagi_Tenaga_Kerja_Terdidik_di_Kota_Medan).

- Pandiangan, Saut Maruli Tua. (2018). *Analisis Faktor-faktor yang Mempengaruhi Penawaran Tenaga Kerja Lanjut Usia di Kota Medan*. Tesis. Medan: Fakultas Ekonomi dan Bisnis, Program Studi Ilmu Ekonomi, Universitas Sumatera Utara. <http://repositori.usu.ac.id/bitstream/handle/123456789/10033/167018013.pdf?sequence=1&isAllowed=y>.
- Pandiangan, Saut Maruli Tua, Rujiman, Rahmanta, Tanjung, Indra I., Darus, Muhammad Dhio, & Ismawan, Agus. (2018). An Analysis on the Factors which Influence Offering the Elderly as Workers in Medan. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*, 23(10), 76-79. DOI: 10.9790/0837-2310087679. <http://www.iosrjournals.org/iosr-jhss/papers/Vol.%2023%20Issue10/Version-8/K2310087679.pdf>.
- Pandiangan, Saut Maruli Tua, Resmawa, Ira Ningrum, Simanjuntak, Owen De Pinto, Sitompul, Pretty Naomi, & Jefri, Riny. (2021). Effect of E-Satisfaction on Repurchase Intention in Shopee User Students. *Budapest International Research and Critics Institute-Journal*, 4(4), 7785-7791. DOI: <https://doi.org/10.33258/birci.v4i4.2697>.
- Pandiangan, Saut Maruli Tua, Oktafiani, Fida, Panjaitan, Santi Rohdearni, Shifa, Mutiara, & Jefri, Riny. (2022). Analysis of Public Ownership and Management Ownership on the Implementation of the Triple Bottom Line in the Plantation Sector Listed on the Indonesia Stock Exchange. *Budapest International Research and Critics Institute-Journal*, 5(1), 3489-3497. DOI: <https://doi.org/10.33258/birci.v5i1.4016>.
- Pandiangan, Saut Maruli Tua. (2022). Effect of Packaging Design on Repurchase Intention to the Politeknik IT&B Medan Using E-Commerce Applications. *Journal of Production, Operations Management and Economics (JPOME)*, 2(1), 15–21. <http://journal.hmjournals.com/index.php/JPOME/article/view/442>.
- Sanjaya, Wina. (2010). *Perencanaan dan Desain Sistem Pembelajaran*. Jakarta: Kencana Prenada Media Group.
- Tobing, Murniati, Afifuddin, Sya'ad, Rahmanta, Huber, Sandra Rouli, Pandiangan, Saut Maruli Tua, & Muda, Iskandar. (2018). An Analysis on the Factors Which Influence the Earnings of Micro and Small Business: Case at Blacksmith Metal Industry. *Academic Journal of Economic Studies*, 5(1), 17-23. <https://www.cceol.com/search/article-detail?id=754945>.