

ICT INTEGRATION IN AQIDAH AKHLAK LEARNING: A QUANTITATIVE STUDY AT MADRASAH ALIYAH NEGERI 1 SOLOK

Syahrul Wujud¹, Susi Herawati², and Roya Zahir³

¹ Mahmud Yunus State Islamic University of Batusangkar, Indonesia

² Mahmud Yunus State Islamic University of Batusangkar, Indonesia

³ Kunduz University, Afghanistan

Corresponding Author:

Syahrul Wujud,

Department of Islamic Education, Faculty of Tarbiyah and Teacher Training, Mahmud Yunus State Islamic University, Batusangkar, West Sumatra, Indonesia.

Email: wujudsyahrul@gmail.com

Article Info

Received: 6-11-2025

Revised: 20-11-2025

Accepted: 11-12-2025

Online Version: 16-12-2025

Abstract

The development of information technology requires educators to utilize technology to improve the quality of learning. This study aims to determine the extent to which teachers at the madrasah aliyah level have implemented the use of technology in teaching faith and morals. The method used is a quantitative approach, namely by conducting a survey using Google Forms and in-depth interviews with several students and teachers, with 10 student respondents, analyzed using a quantitative method so that the percentage of the distributed questionnaire can be clearly seen. The results show that 80% of students understand ICT, 70% strongly agree that ICT facilitates learning, 60% state that religious and moral education already uses ICT, 60% consider ICT to be very suitable for senior high schools, 90% focus when teachers use ICT, 60% stated that there are obstacles, 70% strongly agree that ICT has advantages, 100% stated that ICT greatly helps online learning, and 80% agree that material is more effectively delivered through ICT. Teachers also use LCD projectors to show videos and students display ppt, so that learning is not monotonous. ICT can be used in akidah akhlak learning because using technology can improve students' learning abilities. The research is limited to the use of ICT in akidah akhlak learning only.

Keywords: Faith and Morals, ICT, LCD Projector.



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Journal Homepage <https://jurnal.educatech.id/index.php/tirej>

How to cite: Wujud, S., Herawati, S., & Zahir, R. (2025). Ict Integration In Aqidah Akhlak Learning: A Quantitative Study At Madrasah Aliyah Negeri 1 Solok. *Transdisciplinary Islamic Religious Education Journal*, 1(1), 10–22.

Published by: Indonesia Cakap Digital

INTRODUCTION

The development of information and communication technology today has made it easier to disseminate information in the current era (Alassafi, 2021; Ferreira da Silva et al., 2021; Kit Ng et al., 2020). Information about an event that occurs in a certain area can be easily disseminated (Global et al., 2023)(Zhang et al., 2023; Maebara et al., 2020). Thus, the existence of technology today can make it easier for humans to carry out their daily routines (Demirgüç-Kunt et al., 2020;Eberl et al., 2025; Wilkowska et al., 2021). The same is true in the world of education, where technological developments have had a major impact, especially on the learning process (Bunjaku et al., 2024; Li & Mao, 2022;Branca et al., 2025). The development of information technology is a challenge that educators will face (Chick et al., 2020; Gacs et al., 2020;Latifah & Ivada, 2025). This is because educators are required to be able to use existing technology in the learning process.

Due to the education system law, it is no longer the time to rely on a lecture-based approach in the learning process (Johnson et al., 2020; Fardilah et al., 2023; Zheng et al., 2025). Technological developments have changed the way humans carry out activities, both at work and in the teaching and learning process (Adi Badiozaman et al., 2022;Ukwandu et al., 2025; Starkey, 2020). Communication is one of the educational media that utilizes communication tools such as WhatsApp, mobile phones, computers, and others (Global et al., 2023;Traeger-Soudry et al., 2025; Rasool et al., 2021). Therefore, the interaction between teachers and students is not only face-to-face at school but also through the use of technology that can facilitate communication. An educator can provide services to their students without having to meet them directly.

Students can also obtain information within a limited scope through the internet, such as Google, YouTube, and other networks (Chai, 2022; Were et al., 2021; Furukawa et al., 2025). The use of information and communication technology in the learning process at every level of education. Currently, it is widely used as a tool to assist teachers in delivering their material (; Nascimiento et al., 2020; Kadluba et al., 2025). In this case, technology tends to play a significant role as a medium in the learning process. Utilizing information and communication technology in learning is a form of adaptation in acquiring knowledge using the technology that is currently developing (HSE University et al., 2022; Saputra, 2024). This makes human life easier and everything feels lighter.

Given the rapid development of technology today, a new era called the digital era has emerged (Ahmad et al., 2020; Millward-Hopkins et al., 2020;Alatas, 2023). In this era, everyone can easily find what they want through the internet. In this era, people can access various information without being constrained by space and time (Matysek & Tomaszczyk, 2022; Mehra et al., 2025; Razaque et al., 2025). The creation of this digital world has made it easier for humans to carry out all their activities. It is also undeniable that the various negative aspects arising from this technological sophistication have made humans busy with themselves without paying attention to the real world (Ammar et al., 2020; Demena & Afesorgbor, 2020; Dwivedi et al., 2023). Islamic education in this technological era aims to create Muslims who are able to apply Islamic values.

Islamic education can also be referred to as teaching, training, knowledge sharing, and leadership activities where teachers carry out all these activities in the teaching and learning process with sincerity, patience, and responsibility. It also offers learning opportunities to students so that knowledge transfer can be optimized. The objectives of these learning activities are very good and aim to teach and instill good character traits in students. When students know how to apply good traits and values in life, a sense of security is created in their hearts. Islam is a religion that is not closed to rapid developments, including technology, but Islam is very adaptive and even encourages humans to live dynamically and create better opportunities at all times, as long as faith and piety are important. Recognizing the suitability of PAI learning technology and the acceptance of Islamic education in terms of positive tolerance, Islamic

religious education (PAI) in schools must have the opportunity to utilize these resources and begin to transform traditional learning models into technology-based ones (Sugianto et al., 2023).

Likewise, learning about faith and morals serves to create an Islamic generation with strong faith and Islamic morals. The implementation of education on faith and morals has an influence in this digital era. Education on faith and morals teaches people to have the right faith and morals in accordance with Islamic teachings, which will certainly make people wise in using technology. Someone with strong faith will understand how to respond to this digital age. However, behind all that, technology also has a negative impact on students with poor personalities, namely that they can misuse the technology that has been made available to them. Furthermore, it is not impossible for students to become uncontrollable in their lives and enthusiasm for learning by their parents and teachers.

Through technology, faith and moral education can be easily found on the internet, which is ready to provide students with the material they want instantly (Rungruangjit et al., 2024; Hukubun et al., 2024; Juwairiyah & Fanani, 2025). For this reason, education must progress, especially in faith and moral education, in order to remain relevant in every era (Gravett, 2022; Hernández-Dionis et al., 2022; Besari, 2023). Therefore, utilizing technology in the learning process is one of the efforts to improve the quality of faith and moral education from time to time. In this case, technology can make the educational process an activity that can change students' characters in accordance with the times (Rohanita & Acetylena, 2025; Elbaz et al., 2024). In addition, educational activities will become something that can be enjoyed and whose benefits can be felt by humans.

There are several previous studies relevant to the research conducted by the current researcher, including research by (Andrijati: 2004), which states that the learning process carried out by teachers in schools still depends on or tends to use teaching aids that do not utilize technological media. Educators tend to use simple teaching aids that are far from interesting, resulting in a lack of interest in learning among students. Therefore, learning in schools becomes monotonous and boring for students. Furthermore, research by Ryan and Cowie (2009) reveals that technology applied in learning can foster students' potential for collaborative learning and improve their thinking skills through investigative methods in learning. Another study (The New Zealand Ministry of Education 2007) recommends that ICT be used at every level of education as a communicative and attractive medium in learning, because the potential generated by the use of ICT makes each student creative and critical thinkers.

This study aims to determine the extent of educators' and students' knowledge in understanding information and communication technology. It also aims to determine the extent of the application of information and communication technology in the teaching of faith and morals at the madrasah aliyah level of education. Furthermore, it aims to determine the impact that will arise if a teacher does not incorporate technology into the process of teaching faith and morals. This is because the use of ICT in the teaching and learning process has advantages and disadvantages. The advantages of involving ICT in learning are: an increase in the quality of learning and broader access to education. Furthermore, ICT greatly helps students to visualize ideas that are still abstract. Behind these advantages, ICT also has disadvantages, including that educators who are still unable to operate ICT will find it difficult to deliver learning materials, and the tools required for ICT tend to be more expensive, so that some schools with limited funding will find it difficult to procure and utilize ICT in their schools.

RESEARCH METHOD

Research Design

The research design uses a quantitative approach. This research was conducted at Madrasah Aliyah Negeri 1 Solok. As teaching and learning activities return to normal, the researcher chose

this time because teachers and students used technology in the learning process during their online learning.

Research Target/Subject

The target/subjects of the research are educators and students at Madrasah Aliyah Negeri 1 Solok who participated in completing the online questionnaire provided by the researcher.

Research Procedure

In conducting the research, the researcher used a quantitative model with survey and interview methods. The surveys and interviews conducted in this study used online media. The purpose of the survey is to obtain data related to the use of ICT in learning, particularly in the study of Islamic creed and ethics (Suominen et al., 2018). Researchers compiled an online questionnaire about ICT utilization. The questionnaire link was distributed to teachers and students. After completing the questionnaire, interviews were conducted with teachers who used ICT in teaching Akidah Akhlak. All data was collected and then discussed with reference to expert opinions and relevant research.

Instruments, and Data Collection Techniques

The data collected in this study was obtained by conducting a survey technique using an online survey questionnaire about the utilization of ICT (Chandran et al., 2022). The link to the questionnaire was created and then distributed. The questionnaire contains questions related to the use of ICT in teaching Islamic ethics and morals at Madrasah Aliyah schools. After completing the questionnaire, interviews were conducted with teachers who use ICT in the Akidah Akhlak learning process. They responded well to the questions asked, and the teachers answered the questions clearly and well.

Data Analysis Technique

From the data that has been collected, an analysis will then be carried out using quantitative methods so that the percentage of questionnaires distributed can be clearly seen. After obtaining the percentage results from the questionnaire responses, they can be elaborated in the discussion by presenting expert opinions with more relevant research.

RESULTS AND DISCUSSION

Survey yang telah peneliti lakukan sebelumnya melalui google form yang diisi oleh 10 orang siswa di satu sekolah. Pertanyaan yang diberikan berkaitan dengan pemahaman siswa tentang ICT dalam pembelajaran akidah akhlak dan pemanfaatannya di sekolah. Pada tingkatan Madrasah Aliyah, ICT cukup memberikan dampak positif sebagai media dan alat penunjang keberhasilan pencapaian tujuan pembelajaran yang diinginkan di sekolah. Manfaat yang didapatkan ketika menggunakan ICT sebagai media pembelajaran adalah adanya peningkatan kualitas belajar disekolah itu sendiri, memperluas jangkauan dan cakupan pengetahuan guru ketika mengajar, menjawab keharusan bagi setiap sekolah untuk berpartisipasi aktif dan melibatkan ICT pada saat proses belajar mengajar berlangsung. Namun dibalik semua keunggulannya ada beberapa kelemahan ketika penggunaan ICT sebagai media pembelajaran yaitu harga dari setiap perangkat ICT terbilang mahal, kesulitan bagi pendidik yang masih minim akan pengalaman tentang pengoperasiannya. Selanjutnya adalah bagi peserta didik, ketika tidak bijak menggunakan teknologi maka akan terjadinya penyalahgunaan dalam kehidupan sehari hari.

Tabel 1. Research conducted on students at MAN 1 SOLOK

NO.	QUESTION	PERCENTAGE OF ANSWERS	DESCRIPTION
1.	Do you understand what ICT is?	80% understand and 20% do not understand	Delapan orang dari sepuluh siswa tersebut menjawab paham dan dua orang lainnya menjawab kurang paham tentang ICT.
2.	Do you agree that ICT can make learning easier for students?	70% strongly agree and 30% agree	Seven students answered strongly agree and three others answered agree that it can facilitate the learning process
3.	Has ICT been used as a learning medium in the religious education subject at your school?	60% have and 40% have not	Six students answered that they have used ICT, while four other students have not used ICT.
4.	In your opinion, is the use of ICT appropriate at the Madrasah Aliyah level?	60% very suitable, 20% suitable, and 20% not very suitable	Six students answered very suitable, two others answered suitable, and two others answered not suitable.
5.	In your opinion, will students focus on learning when teachers use ICT as a learning medium?	90% focused and 10% less focused	Nine students answered focused, while one other answered less focused.
6.	Does the use of ICT in learning have obstacles?	60% Yes, 30% No, and 10% Don't know	Six students answered yes, three others answered no, and one other answered don't know.
7.	Do you agree that every use of ICT has advantages that will support learning success?	70% strongly agree and 30% agree	Seven people answered strongly agree while three others answered agree.
8.	Can ICT media help educators when conducting distance learning (online)?	100% very helpful	Ten students answered that it is very helpful for educators in online learning.
9.	Do you agree that the delivery of learning materials using ICT media is	80% agree and 20% disagree	Eight students answered agree while the other two answered disagree.

effectively conveyed to all students?

The word "media" comes from Latin, meaning "middle." In Arabic, the word "media" means something that acts as an intermediary between the sender and receiver of a message. In other words, media can be defined as a tool or medium for delivering scientific messages. Furthermore, learning media is a tool used by educators to demonstrate certain learning procedures so that learning appears more interesting and realistic. All of these tools are intended to provide a more realistic experience for students and motivate their memory and absorption in learning. Effective learning media fosters a positive attitude and mentality in students towards the learning process itself.

The use of media in the learning process will create positive attitudes and behavior in students. In the learning process, students will be interested if educators use the right media to foster their motivation to learn. Educators will be more active and efficient in delivering material if they can use media in learning properly and appropriately according to the situation and conditions. The tendency of students to get bored easily in learning is the basis for teachers to be able to create or use a type of learning media that can attract students' interest in learning and provide feedback in the learning process.

The current trend in education is to utilize and use technology-based media, better known as ICT (Information and Communication Technologies). ICT is a term that is familiar to people living in the present day. In Indonesia, ICT is better known as information and communication technology, which is a combination of three words, namely information, communication, and technology. The term ICT emerged because in the 20th century, there was a fusion between computer technology and communication. The combination of these three words has its own meaning, including: information is the result of data processing that summarizes something useful, communication means a form of reception and transmission between two or more people so that the message conveyed can be easily understood. Furthermore, technology is a capability that has a foundation in exact sciences and is based on technical processes.

Information and communication technology is a broad umbrella term for technology that encompasses all technical equipment used to process and convey information. ICT covers two important aspects, namely information technology and communication. Information technology encompasses all aspects of the use of tools, manipulation, and management of data. Meanwhile, communication technology concerns the use of tools to process and transfer data from one device to another. Therefore, information technology cannot be separated from communication technology.

The rapid development of information and communication technology has brought changes to all sectors, including education. People can find everything they need instantly through internet-based digital technology. Various information is summarized in it, so it can be accessed quickly and easily through many websites available today. This is very interesting and challenging for all parties in educational institutions. All parties are required and expected to have good knowledge and expertise in utilizing this technology in teaching and learning activities.

The challenges posed by information and communication technology today have indeed encouraged humans to dive right in and experience its enormous impact. The impact of ICT can be seen in the positive results it produces, as well as the negative aspects that arise as a result of its development. These impacts require action from humans to create appropriate methods or steps so that information and communication technology can continue to run smoothly and well. These human actions can also become a unifying or mediating force between humans and technology.

There are many positive impacts of the development of information and communication technology on the world of education. Among these positive impacts is that information and communication technology can facilitate the teaching and learning process. ICT can serve as an effective source or medium of learning. This can be felt by both teachers and students. Teachers who are proficient in information and communication technology or ICT can use various applications, platforms, and websites that can serve as online-based learning media. These applications or platforms can help deliver material in a more interesting way and elicit positive responses from students, making the learning process more enjoyable.

Mastering information and communication technology (ICT) is also very important and necessary for all students. The success of learning in achieving its ultimate goal is not only determined by the quality of teachers, but also by the quality of students. Therefore, students also need to have a high level of understanding of the things that are very necessary and important in the educational process. If students understand information and communication technology, then the educational goals will be achieved more quickly. This is because if students understand the online-based learning media used by teachers, then the time required in the learning process will certainly be less or more efficient.

The use of ICT in learning can also be seen in the teaching of faith and morals at the Madrasah Aliyah level. In this learning process, ICT can be a very important tool or learning medium because the material on faith and morals is usually long and boring when explained, so students are less interested in it. The method often used in this subject is lecturing, which makes students sleepy during the learning process. However, it will be different if teachers incorporate ICT or use ICT in learning activities. The use of ICT can make it easier for teachers to explain the material, make students more interested in the material and increase their enthusiasm for learning, make learning time more concise or effective, and make the ultimate goal of education easier to achieve.

Students at the Madrasah Aliyah level are generally familiar with information and communication technology or ICT. This is because ICT is usually a separate subject at this level of education. In addition, it is very rare to find people who do not use information and communication technology tools in their daily lives. This is especially true for Madrasah Aliyah students, who are transitioning from adolescence to adulthood, so even without strict supervision, they can be entrusted with objects or tools that are part of ICT. Examples of such objects are mobile phones and computers. ICT is considered very suitable to be introduced and implemented for students in Madrasah Aliyah educational institutions.

However, ICT also has negative aspects or impacts on education. Information and communication technology can make students more careless in their studies if not used properly. ICT can make students addicted because of the conveniences it offers and the various new things that attract students' attention. Therefore, it is necessary to control the use of information and communication technology, both by students themselves and by parents and teachers. Otherwise, the initial intention of using ICT to improve student learning achievement will remain a pipe dream. If this happens, the objectives of education cannot be achieved, and the educational process can be said to have failed.

ICT, which is prone to hoaxes or fake news, is another negative impact or obstacle to the use of ICT in the learning process. The development of information and communication technology has made it easier for irresponsible individuals to spread and convey various news. The news that comes in is sometimes not filtered properly and is swallowed whole by listeners without first testing its accuracy. If this news or information reaches students and is not studied first, it will cause students to become involved in the circle of hoax news and may also enable them to become spreaders of such information or news. In this case, more security and protection are needed for information and communication technology, which may be achieved through legislation.

There are certainly many and varied positive and negative impacts that come from the spread of information and communication technology. The positive impacts of ICT certainly need to be maintained or even improved in the future. Meanwhile, the negative impacts of ICT on the education process need to be addressed and improved so that they will gradually be overcome. The development of ICT is also very necessary as a response to the challenges of the future. ICT can be developed by humans continuing to hone their knowledge and skills in information and communication technology. This is necessary to achieve a balance between human growth and technological development. Basically, humans cannot reject technological developments, but they can control technological developments and reap the benefits.

CONCLUSION

From the above discussion, it can be concluded that the use of ICT in teaching faith and morals at Madrasah Aliyah is in line with expectations. In general, students already know what ICT is and how it can be used in learning. The existence of ICT as a creative learning medium allows for a more interactive and communicative learning process. ICT answers the challenge for teachers to use technology as well as possible, thereby facilitating the delivery of learning materials. The proper use of technology creates a generation that understands ICT, because in the future it is not impossible that education will have shifted from a conventional learning model to a learning model based on digital media and technology. Therefore, all levels of government are encouraging educators at all levels of education to begin upgrading their learning media to ICT.

ACKNOWLEDGMENTS

The researcher would like to thank the students of MAN 1 Solok who helped fill out the questionnaire on the Google Form link that was shared. Furthermore, thank you also to the teachers who took the time and were willing to be sources and subjects of the researcher's current research on the use of ICT in the subject of faith and morals at Madrasah Aliyah. The researcher hopes that this research will be useful and beneficial to the community, and that future researchers will be able to further develop the use of ICT in the subject of Aqidah Akhlak at Madrasah Aliyah.

AUTHOR CONTRIBUTIONS

Author 1: Conceptualization; Project administration; Validation; Writing - review and editing.

Author 2: Conceptualization; Data curation; Investigation, Writing

Author 3: Data curation; Investigation, Validation.

CONFLICTS OF INTEREST

The authors declare no conflict of interest.

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