

## Islamic Religious Education Teachers' Strategies in Utilising Smartphones at Sumber Harta State High School, Musi Rawas Regency, South Sumatra Province

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**Abstract:** This study examines Islamic Religious Education teachers' strategies in utilising smartphones as learning tools at SMA Negeri Sumber Harta, Musi Rawas Regency, South Sumatra Province. Smartphone technology has great potential to support modern learning, including religious Education, emphasising character building, material mastery, and understanding of spiritual values. This research focuses on how teachers integrate smartphones in the learning process, their impact on student learning outcomes, and the obstacles and opportunities that arise from the application of this technology. The research method used is qualitative, with data collection techniques through interviews, observations, and documentation. The data was analysed descriptively to provide an overview of the learning strategies applied. The study results showed that PAI teachers use smartphones through various methods, such as religious applications, digital Qur'an and interpretation applications, online learning platforms, and discussion groups on social media to strengthen the interaction between teachers and students. Teachers also integrate smartphones in learning evaluations, such as Quizziz, Google Forms, and creative project-based assignments. This strategy can increase student engagement, facilitate access to information, and expand the scope of religious learning outside the classroom. However, challenges include some students' lack of digital literacy, potential distractions from irrelevant content, and gaps in accessing technology. This study concludes that smartphones are an effective learning tool with a strategic and directed approach. School policy support, digital literacy training for teachers and students, and supervision of teachers or parents in the use of technology are needed to minimise negative impacts. With the right approach, smartphones can support Islamic religious Education, which is relevant to the digital era and effectively shapes students' character and spirituality.

**Keywords:** Islamic Education; Smartphones; Learning Strategies

**Abstrak:** Penelitian ini mengkaji tentang strategi guru Pendidikan Agama Islam dalam memanfaatkan smartphone sebagai media pembelajaran di SMA Negeri Sumber Harta, Kabupaten Musi Rawas, Provinsi Sumatera Selatan. Teknologi smartphone memiliki potensi besar untuk mendukung pembelajaran modern, termasuk Pendidikan Agama Islam yang menekankan pada pembentukan karakter, penguasaan materi, dan pemahaman nilai-nilai spiritual. Penelitian ini berfokus pada bagaimana guru mengintegrasikan smartphone dalam proses pembelajaran, dampaknya terhadap hasil belajar siswa, serta kendala dan peluang yang muncul dari penerapan teknologi ini. Metode penelitian yang digunakan adalah kualitatif, dengan teknik pengumpulan data melalui wawancara, observasi, dan dokumentasi. Data dianalisis secara deskriptif untuk memberikan gambaran tentang strategi pembelajaran yang diterapkan. Hasil penelitian menunjukkan bahwa guru PAI menggunakan smartphone melalui berbagai metode, seperti aplikasi keagamaan, aplikasi Al-Qur'an dan tafsir

*digital, platform pembelajaran online, dan grup diskusi di media sosial untuk memperkuat interaksi antara guru dan siswa. Guru juga mengintegrasikan ponsel pintar dalam evaluasi pembelajaran, seperti Kuis, Google Formulir, dan tugas berbasis proyek yang kreatif. Strategi ini dapat meningkatkan keterlibatan siswa, memfasilitasi akses informasi, dan memperluas cakupan pembelajaran agama di luar kelas. Namun, tantangan yang dihadapi antara lain kurangnya literasi digital siswa, potensi gangguan dari konten yang tidak relevan, dan kesenjangan dalam mengakses teknologi. Studi ini menyimpulkan bahwa smartphone merupakan alat pembelajaran yang efektif dengan pendekatan yang strategis dan terarah. Dukungan kebijakan sekolah, pelatihan literasi digital untuk guru dan siswa, serta pengawasan guru atau orang tua dalam penggunaan teknologi sangat diperlukan untuk meminimalisir dampak negatif. Dengan pendekatan yang tepat, smartphone dapat mendukung pembelajaran Pendidikan Agama Islam yang relevan dengan era digital dan efektif membentuk karakter dan spiritualitas siswa.*

**Keywords:** Pendidikan Islam; Ponsel Pintar; Strategi Pembelajaran

## INTRODUCTION

The role of learning media is significant, especially in the world of Education. Along with developing increasingly sophisticated technology, achieving more effective and efficient educational goals is essential. The learning process will not be separated from the media, methods, and learning outcomes. The role of learning media in learning and teaching is two things that cannot be separated from the world of Education.<sup>1</sup>

Learning media can be used to channel the sender's message to the recipient, so that it can stimulate students' thoughts, feelings, attention, and interest in learning. Learning media is also a means used as a bridge to deliver lessons, hoping that it will make it easier for teachers to convey subject matter.

Information technology development today is speedy and has spread to various aspects of modern human life without exception in the field of Education. The growth that has occurred is an expression of efforts to bridge the future by introducing innovations and views for advancing the world of Education.

The development of Science and Technology at this time encourages teachers and teacher participants to be more creative in displaying more active

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<sup>1</sup> Nurul Astuty Yensy, 'Efektifitas Pembelajaran Statistika Matematika Melalui Media Whatsapp Group Ditinjau Dari Hasil Belajar Mahasiswa (Masa Pandemi Covid 19)', Jurnal Pendidikan Matematika Raflesia, 05.02 (2020), 65–74..

learning.<sup>2</sup> Media in Education is a part that must get the attention of teachers/teachers as facilitators in every learning activity carried out.<sup>3</sup>

Using technological media, teachers and students can access more information. They can learn without being limited by space and time, anytime and anywhere. By the current conditions of the increasing development of science and the development of the times, *smartphones* have become a communication tool owned by almost every individual.<sup>4</sup>

*Smartphones* or mobile phones that have various sophistications, one of their functions can be used as a learning medium.<sup>5</sup> For example, students and teachers can learn and communicate with the Google Classroom platform even though they are not in the same room or face-to-face.<sup>6</sup> The presence of *smartphones* provides benefits and convenience for their users, especially in the world of Education.<sup>7</sup>

Based on the interview we conducted with the vice principal for curriculum, Mr. BA, it was conveyed that "At SMA Negeri Sumber Harta has allowed students to use *Smartphones* in the school environment as a medium to support learning, students have experienced several changes and improvements, especially in the last year, the number of students has increased, from the number of Class XII students: 56 students, Class XI: 62 students and Class X: 83 students.

An interview conducted with a PAI subject teacher at SMA Negeri Sumber Harta Mr. SR, some of the things he conveyed, first there were changes

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<sup>2</sup> Alifa Amalia Izzati and others, 'Pengaruh Blended Learning Dalam Meningkatkan Efektifitas Pembelajaran', *Jurnal Eduscience*, 8.2 (2021), 14–22 <<https://doi.org/10.36987/jes.v8i2.2243>>.

<sup>3</sup> Septy Nurfadhillah and others, 'Peranan Media Pembelajaran Dalam Meningkatkan Minat Belajar Siswa SD Negeri Kohod III', *PENSA : Jurnal Pendidikan Dan Ilmu Sosial*, 3.2 (2021), 243–55.

<sup>4</sup> Amalia Yunia Rahmawati, '濟無No Title No Title No Title', 1.July (2020), 1–23.

<sup>5</sup> Egha Alifa Putra, Ria Sudiana, and Aan Subhan Pamungkas, 'Pengembangan Smartphone Learning Management System (S-LMS) Sebagai Media Pembelajaran Matematika Di SMA', *Kreano, Jurnal Matematika Kreatif-Inovatif*, 11.1 (2020), 36–45 <<https://doi.org/10.15294/kreano.v11i1.21014>>.

<sup>6</sup> SRI INDARWATI, 'Efektifitas Penggunaan Google Classroom Dalam Pembelajaran Jarak Jauh Mata Pelajaran Pai Dan Budi Pekerti Di Masa Pandemi Covid-19', *EDUCATOR : Jurnal Inovasi Tenaga Pendidik Dan Kependidikan*, 1.1 (2021), 1–8 <<https://doi.org/10.51878/educator.v1i1.501>>.

<sup>7</sup> Mohamad Sakban, Padlurrahman Padlurrahman, and Baiq Rismarini Nursaly, 'Eksplorasi Peran Handphone Berbasis Android Dalam Pembelajaran Daring Di Sekolah Dasar', *PINUS: Jurnal Penelitian Inovasi Pembelajaran*, 7.1 (2021), 53–58 <<https://doi.org/10.29407/pn.v7i1.15865>>.

in learning methods and models with the use of *smartphones*, without exception in the subject of Islamic Religious Education, the learning process with the help of *smartphone* media. Among other things, with the existence of a digital Qur'an application available on smartphones, students do not have to bring a printed Qur'an but open the application, as well as hadith.

On the other hand, learning related to some difficult terms can be alternatively searched on sites such as *Google Chrome* or others. The learning was also more interesting and fun, along with the increase in students' interest in Education, which was shown by how enthusiastic they were to participate in PAI subjects at SMA Negeri Sumber Harta.

He further said that not all high schools in Musi Rawas allow/legalise using *Smartphone media* in their school environment". Mr. SR teaches at Sumber Harta State High School, Tugumulyo State High School, Muara Rupit State High School, and Remban State High School. In the three schools, students cannot bring *smartphones* into the school environment.

Learning is considered more effective with the role and assistance of the media, and the methods used to convey learning materials to reach students effectively and efficiently to understand and analyse.<sup>8</sup> Learning success can be achieved if all parties cooperate and are supported by the supporting media.<sup>9</sup>

The reasons why researchers are interested in researching the use of *smartphones* at SMA Negeri Sumber Harta include the following: *First*, not all school institutions in Musi Rawas exempt/legalize the use of smartphones when students are in the school environment. *Second*, the location of Sumber Harta State High School is quite far from the city centre (located in the interior, namely in Sumber Jaya Village, Sumber Harta District, Musi Rawas regency), the distance from the city of Lubuklinggau is 50 KM to the school location, although far inland. Still, this school can accommodate its students to use technology as one of the learning media. *Third*, SMA Negeri Sumber Harta has provided free wifi to help students without a data package access the internet while finding learning materials.

With the above problems, the author is encouraged to find out the strategies of PAI teachers in using *smartphones* in learning at SMA Negeri Sumber Harta, Musi Rawas Regency, South Sumatra Province. This study aims to analyse the approach applied by PAI teachers in utilising smartphones as a learning medium at SMA Negeri Sumber Harta. Identify the challenges and obstacles faced by PAI teachers in utilising smartphones. Evaluate the impact of

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<sup>8</sup> Yensy.

<sup>9</sup> B H Husein, *Media Pembelajaran Efektif*, Semarang: Fatawa, 2020.

smartphone use on the effectiveness of PAI learning, and prepare recommendations to improve the effectiveness of smartphone use in PAI learning.

With these goals, it is hoped that this research can improve the quality of technology-based PAI learning, especially in schools in rural areas such as SMA Negeri Sumber Harta.

## LITERATUR REVIEW

Fibria Anggraini Puji Lestari concluded that the media in the world of Education has significantly contributed to providing and implementing problem-solving for delivering material to students. Learning media impacts three things: changing decision-making, creating new learning patterns, and enabling new alternative forms in Education.<sup>10</sup>

Putu Wisnu Saputra. The research results concluded that using digital-based learning media, of course, can concretise teaching materials that are still abstract so that students can quickly understand the purpose of learning.<sup>11</sup>

In her journal, Ina Magdalena concluded that using video-based media in teaching and learning is more effective. Observing reactions to learning films seems beneficial for children's understanding of the subject matter. Teachers can be more imaginative and creative because content can be taught in videos, and learning can be communicated.<sup>12</sup>

In her journal, Septy Nur Fadillah concluded that by using learning media, teachers can create easier topics for students to understand and encourage their enthusiasm in learning new things. Inspiring learning materials can help learners become more engaged in their learning. In formal educational institutions, the management of learning aids is critical.<sup>13</sup>

In his journal, Rudi Haryadi concluded that using learning media impacts student learning outcomes. So that students do not get bored quickly, teachers must be more creative and original in using electronic learning materials. This

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<sup>10</sup> Riko, Lestari, and Dewi.

<sup>11</sup> Saputra and Gunawan.

<sup>12</sup> Ina Magdalena, Mimi Islamiati, and Universitas Muhammadiyah Tangerang, 'Efektivitas Media Pembelajaran Berbasis Video Terhadap Kemampuan Memahami Dan Hasil Belajar Siswa Di Sd Negeri Kamal 03', *EDISI : Jurnal Edukasi Dan Sains*, 3.2 (2021), 326–38.

<sup>13</sup> Nurfadhillah and others.

will improve student learning outcomes; the material can be accessed anywhere and anytime.<sup>14</sup>

Nafilatur Rohmah concludes that technological developments are reflected in the development of educational media. Teaching materials used ten years ago can no longer be used due to technological advancements. Teachers make teaching materials using the latest technological advancements. The following teaching materials are still often used today: print-based, audio-based, audio-visual, animation-based, and educational game-based.

Novita in her journal concluded that during the covid 19 pandemic, PAI learning must be adjusted to government directives and reforms that promote the use of distance or online learning, when learning from home is implemented, one of the preferred media that is considered to be able to support student learning is the zoom meeting platform.

In her journal, Dewi Asmalasari concluded that students' enthusiasm and interest in learning Islamic Cultural History can be increased using mobile phone learning materials and media. Using mobile devices as educational media and tools can increase students' enthusiasm and interest in learning, ultimately improving their learning outcomes.

Ermi Widayanti, in her journal, concluded that the study results show that most students respond positively to the educational content presented by teachers using ICT-based learning resources. Use ICT-based learning resources to end lessons. As a result, ICT equipment can be used as a learning tool to help students learn more freely.<sup>15</sup>

Lovandri concludes that rapid advances in digital technology have greatly influenced Education in Indonesia. Learning has become more effective and efficient with several advancements in digital media-based learning. Using digital technology in the classroom is a step forward, but presents several obstacles. Mastery of digital technology is essential to accelerate the development of students' skills and facilitate the creation of diverse learning resources for teachers.<sup>16</sup>

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<sup>14</sup> Rudi Haryadi, Hanifa Nuraini, and Al Kansaa, 'Pengaruh Media Pembelajaran E-Learning Terhadap Hasil Belajar Siswa', *AtTālim : Jurnal Pendidikan*, 7.1 (2021), 2548–4419.

<sup>15</sup> Ermi Widayanti, Maria Ulpah, and R. Benny A. Pribadi, 'Learning with Information and Communication Technology-Based Media in Elementary Schools', *Educational Journal*, 10.2 (2022), 181–96 <<https://doi.org/10.24090/jk.v10i2.7705>>.

<sup>16</sup> Yesi Arikarani and Muhammad Faizul Amirudin, 'Pemanfaatan Media Dan Teknologi Digital Dalam Mengatasi Masalah Pembelajaran Dimasa Pandemi', *Ej*, 4.1 (2021), 93–116 <<https://doi.org/10.37092/ej.v4i1.296>>.

Several previous studies have stated that technology-based learning media are one of the supports that can help succeed and smooth the learning process. This research is different from prior research. *First*, in this study, the author discusses that the intended learning media uses *smartphones* at SMA Negeri Sumber Harta. *Secondly*, in this study, the author will further examine how the strategies of PAI teachers at SMA Negeri Sumber Harta make learning effective so that students can understand learning well and make them more interested because of the new things they get.

The strategy of PAI teachers in utilising smartphones at SMA Negeri Sumber Harta, Musi Rawas Regency, South Sumatra Province is based on the latest educational theories and the opinions of scientists relevant to this research.

Learning strategies are systematic and structured plans to achieve educational goals effectively and efficiently.<sup>17</sup> Learning strategies include various elements, such as techniques, methods, and approaches, designed to create engaging and meaningful learning experiences for learners.<sup>18</sup> This strategy aims to ensure that the learning process takes place optimally to help students master the targeted competencies.

In Islamic religious Education, learning strategies that utilise modern technology, such as smartphones, play an essential role in supporting the teaching process. Using technology, teachers can present complex religious materials through a more interactive and easy-to-understand approach. Smartphones allow students to access additional learning resources, participate in application-based learning, and explore religious concepts through digital media that are interesting and relevant to the needs of the times.

Islamic religious education teachers are significant presenters of religious material and shapers of students' character and noble morals. As role models in spiritual and moral aspects, PAI teachers are required to instill strong religious values in students. According to the<sup>19</sup> role of teachers in the digital era, it is expanding, not only as educators, but also as facilitators who support

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<sup>17</sup> Mohammad Givi Efgivia, 'Pemanfaatan Big Data Dalam Penelitian Teknologi Pendidikan', *Educate: Jurnal Teknologi Pendidikan*, 5.2 (2020), 107–19 <<https://doi.org/10.32832/educate.v5i2.3381>>.

<sup>18</sup> Y.A Firmansyah, 'Mutu Pembelajaran Pendidikan Agama Islam Pada Perguruan Tinggi Swasta Di Bandar Lampung', 2019.

<sup>19</sup> Rifa Nur Fauziyah, Asep Dudi Suhardi, and Fitroh Hayati, 'Strategi Guru Dalam Menerapkan Pembelajaran Aktif Inovatif Kreatif Efektif Dan Menyenangkan (PAIKEM) Pada Pembelajaran Pendidikan Agama Islam Di SDN X Astanaanyar Kota Bandung', *Jurnal Riset Pendidikan Agama Islam*, 1.2 (2022), 120–26 <<https://doi.org/10.29313/jrpai.v1i2.547>>.

technology-based learning.<sup>20</sup> In this context, PAI teachers are expected to be able to utilise modern technology, such as smartphones, as an effective learning medium.

Smartphones allow teachers to provide access to various relevant learning resources, including Islamic educational applications, e-learning platforms, multimedia-based materials, or online discussion forums. By utilising this technology, teachers make it easier for students to understand religious materials and support them in integrating spiritual values into their daily lives through an interactive and innovative approach.

Smartphones have great potential as a modern learning medium because they provide quick and wide access to a wide range of information, learning resources, and supporting applications relevant to the educational process. According to Handayani et al., using smartphones can increase student participation and engagement in the learning process and encourage them to learn independently and interactively.<sup>21</sup> In the context of Islamic Religious Education, smartphones can be used optimally to support the understanding of religious materials.

Teachers and students can access various Islamic education applications, such as the digital Qur'an, interactive hadith applications, interpretations, and learning video content on the taught topics. In addition, smartphones also allow students to participate in online discussions, take interactive quizzes, or use e-learning platforms specifically designed to explore religious concepts more interestingly and effectively. With wise use, smartphones are not only a technological tool but also a medium that helps instill spiritual values in a relevant and contextual way.

A strategic approach in technology-based learning can be designed based on various relevant educational theories. One is the constructivism theory by Vygotsky, which emphasises the importance of students' interaction with technology to create deep experiential learning. Through technology, learners can interact directly with digital content, solve problems independently, and construct new knowledge based on their experiences.<sup>22</sup>

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<sup>20</sup> M R Azhari, S Mashuri, and ..., 'Integrasi Pendidikan Agama Islam Dalam Pemanfaatan Teknologi Di Era Society 5.0', (Kiiies 5.0), 1.2 (2022), 212–17.

<sup>21</sup> Erni Nuraliyah and others, 'Penggunaan Handphone Dan Dampaknya Bagi Aktivitas Belajar', Ideas: Jurnal Pendidikan, Sosial, Dan Budaya, 8.4 (2022), 1585 <<https://doi.org/10.32884/ideas.v8i4.961>>.

<sup>22</sup> Kus Suryandari, 'Pembelajaran Tematik Di Sekolah Dasar Dalam Pandangan Teori Perenialisme Plato', Jurnal Papeda: Jurnal Publikasi Pendidikan Dasar, 5.1 (2023), 67–80 <<https://doi.org/10.36232/jurnalpendidikandasar.v5i1.3104>>.



In addition, the theory of connectivity, as described by Siemens, explains that technologies such as smartphones allow students to build knowledge networks globally.<sup>23</sup> Using digital networks, students can learn collaboratively, share information, and expand their understanding through discussions with various learning communities worldwide.

With this approach, technology is not only a learning tool but also a catalyst in creating learning experiences that are interactive, contextual, and relevant to the needs of learners in the digital age. This strategy is very suitable to be applied in Islamic Religious Education learning, where technology can help connect religious concepts with real life through interactive and engaging media.

According to Fadhli, Islamic Education must adapt to technological developments to remain relevant to the needs of the times. Smartphones can support the formation of noble morals through access to learning resources such as Qur'an interpretation, digital lectures, and online religious content.<sup>24</sup> Discussions. Technology-based Islamic Education allows students to learn more flexibly and engagingly.

The implementation model of PAI teachers' smartphone strategies includes: Planning, namely, teachers develop learning programs based on educational applications. At the implementation stage, a teacher facilitates students using smartphones for assignments or online-based discussions. In this phase, teachers measure the effectiveness of smartphone use through formative and summative assessments.<sup>25</sup>

## RESEARCH METHOD

This study uses a qualitative approach. This research aims to understand how good, professional educational practices can improve the results of activities. This study uses a case study approach, which is a research approach that does not use hypotheses or temporary conjectures in the analysis process.<sup>26</sup>

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<sup>23</sup> Muhammad Firman and others, 'Manajemen Pembelajaran Terintegrasi Dalam Model Pembelajaran Blended Learning, Learning Management System', *Munaddhomah: Jurnal Manajemen Pendidikan Islam*, 4.4 (2024), 1038–46 <<https://doi.org/10.31538/munaddhomah.v4i4.869>>.

<sup>24</sup> Zainal Muttaqin, 'Efektivitas Penggunaan Teknologi Dalam Pembelajaran Pendidikan Agama Islam: Studi Kasus Impementasi Platform E-Learning', *Al Qalam: Jurnal Ilmiah Keagamaan Dan Kemasyarakatan*, 18.3 (2024), 2153 <<https://doi.org/10.35931/aq.v18i3.3435>>.

<sup>25</sup> utra, Sudiana, and Pamungkas.

<sup>26</sup> Mouwn Erland, *Metodologi Penelitian Kualitatif*. In *Metodologi Penelitian Kualitatif*, Rake Sarasin, 2020.

This approach will produce data on findings in the field, which will later be described as a form of research results.<sup>27</sup> With this approach, the researcher seems to see and feel the reality that occurs.

The subject of this study is the teacher of Islamic Religious Education, namely Mr. SR, as the primary facilitator in teaching and educating students in the Islamic Religious Education map and ten students, namely five sons and five daughters, representing class XI of SMA Negeri Sumber Harta who were randomly selected by a lottery system.

According to Sugiyono, several techniques exist for collecting qualitative data. The methods used in this study refer to Sugiyono's theory, which are as follows: The scheduled observation that the researcher conducted during three meetings, namely one week of observations to see if the learning strategies used by the teacher changed or remained. The picture observed by the researcher includes approaches, media, strategies, methods, and techniques teachers use for learning PAI subjects in students with different levels of understanding.

In this study, the researcher interviewed teachers of Islamic religious education subjects and Sumber Harta State High School students. The researcher used unstructured interview techniques to explain the teachers' in-depth answers to the structured interview.

Documentation techniques are used to search for supporting books that contain learning strategies and other thematic works. In the next stage, the data found is revealed and understood according to the context and theme, but still refers to the problem being studied.

## RESULTS AND DISCUSSIONS

The research conducted at SMA Negeri Sumber Harta in August 2024 went through several meetings, using three primary methods: observation, interviews, and documentation. This research focuses on PAI teachers' strategies in utilising smartphones in learning at SMA Negeri Sumber Harta, Musi Rawas Regency, South Sumatra Province.

Observations that have been made have found that PAI teachers actively use smartphones as a tool in the learning process. Observations in the classroom show that teachers use smartphones for various purposes, such as displaying learning materials with Qur'an applications, interpretations, and learning videos, technology-based interactions where students seek additional

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<sup>27</sup> Evi Susilowati, 'Implementasi Kurikulum Merdeka Belajar Pada Mata Pelajaran Pendidikan Agama Islam', *Al-Miskawih: Journal of Science Education*, 1.1 (2022), 115–32 <<https://doi.org/10.56436/mijose.v1i1.85>>.

information or access materials through online platforms, and the application of blended learning, students access materials online before discussing them in class. This approach increases their engagement and prepares them to be better and better prepared for discussions.

At the same time, it found potential distractions, such as students being distracted by activities outside of learning when using smartphones, such as accessing social media, playing games, or communicating outside the academic context. This can reduce their focus on understanding the material being taught. Therefore, more intensive supervision and guidance from teachers is needed, both through clear rules of use and innovative pedagogical approaches. Teachers apply strategies such as providing structured assignments, using interactive learning applications, and regular monitoring so that this technology is still used productively and effectively in supporting the teaching and learning process.

Interview with PAI teachers (Syamsurizal, 06/08/2024) to gain a deeper understanding of the use of smartphones in learning. He admitted that this device makes delivering material with more interesting variations, such as video lectures and interactive applications, easier. In addition, the flipped classroom method is applied, where students are asked to study the material independently through a smartphone before the class session, which has been proven to increase the understanding and effectiveness of discussions in the classroom.

In addition to some of these benefits, there are challenges such as students' concentration disturbances due to non-educational applications and technical obstacles such as unstable internet signals and limited access for some students. Interviews with ten students (five boys and five girls) showed that the majority found learning more engaging and flexible with smartphones. However, some have difficulty staying focused due to distractions from other apps.

The documentation collected in this study includes lesson planning documents (RPP), learning materials prepared by teachers, and student evaluation results. The records showed that teachers use the Qur'an application to help students understand tajweed and memorisation more effectively through interactive features. In addition, online platforms such as Google Classroom allow students to access the material anytime and deepen their understanding outside of class hours. The evaluation results showed that students who actively used smartphones in learning had a better experience than those who did not use them as much.

## Smartphone Utilisation Strategies to Support PAI Learning

Smartphones have become an integral part of daily life, including Education. The use of smartphones in Islamic Religious Education learning can be an effective means to increase students' understanding and engagement. However,<sup>28</sup> its use requires the right strategy to provide optimal benefits without causing adverse impacts. In this study, the theory of constructivism put forward by Lev Vygotsky can be used as a basis and reference in designing technology-based learning strategies. There are several Vygotsky concepts among them:

1. The use of learning applications as a proximal development zone. Vygotsky argues that effective learning occurs in the zone of proximal development, which is the range between what the student can do on their own and what can be achieved with the help of the teacher or peers. Teachers can use educational applications such as digital Qur'an, hadith applications, and online learning platforms to guide students in understanding religious concepts.
2. The use of social media as a means of interaction and scaffolding. Vygotsky's theory emphasises that social interaction is crucial in learning. Social media such as WhatsApp, Telegram, or Instagram can be used as a discussion forum, where teachers and students can exchange information and understanding about PAI materials. In this case, the teacher is a facilitator who provides scaffolding (guidance) so students can better understand.
3. Integration of video and audio as collaborative learning media. Experiential learning is strongly emphasised in constructivist theory. Teachers can use video lectures, Islamic studies, or podcasts to enrich learning materials. *Pesrta didik* can be invited to analyse the content, discuss it in groups, and relate it to their experiences.
4. Project-based learning with smartphones for authentic context. One of the key principles of constructivism is learning in a real context. Teachers can assign project-based assignments, such as creating Islamic vlogs, digital presentations, or infographics about Islamic teachings using design applications such as Canva or PowerPoint. Through this approach, students build their understanding with guidance from teachers.

The strategy offered by Vygotsky is in line with the approach applied by Islamic religious education teachers at SMA Negeri Sumber Harta. Based on the observations, interviews, and documentation conducted at SMA Negeri Sumber Harta, it was found that Islamic religious education teachers at SMA Negeri

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<sup>28</sup> Putra, Sudiana, and Pamungkas.

Sumber Harta have used various strategies in utilising smartphones to support learning effectively and efficiently. Smartphones aim to provide students with easier access to relevant Islamic religious learning materials from applications and other digital media.<sup>29</sup>

Utilising applications such as digital Qur'an, tafsir, video lectures, and interactive online learning platforms will create a more varied and enjoyable learning experience for students. This is in line with the research that Islamic religious Education must be adjusted to the times, of course, without reducing the essence of the teachings of Islam itself. Methods may change, but the nature and value of religious teachings must still be prioritised. Furthermore, the theory of connectivityism above concludes that technology such as smartphones helps students build knowledge networks and learn collaboratively.

Smartphones allow students to learn more personally and flexibly, where they can access materials anytime and anywhere, inside and outside the classroom. In line with the theory of constructivism (Vygotsky, in Rachmawati & Kurniawan, 2020), Learners' interaction with technology allows for more immersive experiential learning. This is very helpful in deepening their understanding of religious lessons, as learners can repeat the material, explore additional learning resources, and watch video lectures that clarify complex concepts.

At SMA Negeri Sumber Harta, PAI teachers play an active role in directing smartphones to stay focused on learning goals, ensuring students access credible sources through Islamic values. By using this technology strategically, PAI teachers increase student involvement in the learning process and create a more meaningful and relevant learning experience to the various challenges of today's digital world.

### **Supervision and Control of Smartphone Use**

One of the biggest challenges in utilising smartphones in learning is the potential for distractions that can interfere with students' concentration. Based on the research conducted, it was revealed that PAI teachers at SMA Negeri Sumber Harta are fully aware of this risk. Hence, they implement various strategies to control and supervise the use of smartphones in the classroom environment. Teachers set clear rules about when and how smartphones can be used during learning, for example, only when accessing learning apps or when instructed by teachers.

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<sup>29</sup> Riko, Lestari, and Dewi.

In addition, teachers provide Education on digital ethics, teaching students how to use technology wisely and responsibly. This digital ethics is especially emphasised in Islamic teachings, where students are reminded of the importance of maintaining integrity and discipline in using technology and avoiding content contrary to religious values and applications irrelevant to Islamic religious Education.

Teachers also utilise digital proctoring technology to ensure students stay focused on the lesson, such as apps that monitor students' smartphone activities during class hours. This way, teachers can see if learners stay on the assigned learning platform or switch to other apps that can interfere with concentration.

This approach aims to maintain a balance between the benefits of technology and the risks it poses. Through a combination of supervision strategies, Education, and strict rules, Islamic religious education teachers at SMA Negeri Sumber Harta try to ensure that the use of smartphones supports the learning process without disturbing students' focus. This step is essential for technology to continue to play a positive role while addressing the distraction challenges that often arise in the digital age.

Islamic religious education teachers at SMA Negeri Sumber Harta also implement the *flipped classroom* method, where students learn the material independently first using a smartphone while at home. In this way, students can access various learning videos, read e-books, or delve into the interpretation of the Qur'an through the application available on their smartphones. This technology allows students to learn at their own pace, giving them more time to understand basic concepts before class.

After the material is learned at home, when students are in class, they participate in more interactive discussions, where teachers and students deepen the material through question-and-answer sessions, group discussions, and case studies. These discussions allow learners to deepen their understanding and strengthen communication and collaboration skills, as they are encouraged to participate actively.

This *flipped class* method has been shown to increase learning effectiveness, as learners come to class with stronger initial knowledge, resulting from self-learning outside of class hours. With the foundation of existing understanding, students can deepen the material through direct interaction with teachers and peers. Classroom discussions are more constructive and focused, allowing learners to share perspectives, ask questions, and discuss complex concepts. This approach improves learners' understanding and builds collaboration and essential communication skills in the learning process.

Thus, smartphones not only function as a tool for finding information, but also as a medium to support more active, collaborative, and student-centred learning. This strategy allows students to be more independent in learning and increases their involvement in class discussions, making their understanding of religious material more in-depth and meaningful.

### **Challenges Faced by Teachers**

Although the benefits of technology, including smartphones, are immense in supporting learning, Islamic religious education teachers at SMA Negeri Sumber Harta also face several challenges in integrating these devices into the learning process. One of the main challenges is the limited internet access due to the position of being in a rural area, often causing students difficulty accessing online or video learning materials. Unstable or limited internet can affect the smooth learning flow, especially for learners who rely on connections to download materials or take online classes.

In addition, some students' lack of technical skills is an obstacle to the optimal use of smartphones. Not all students have the same ability to operate learning applications, search for digital learning resources, or use online platforms. This can reduce learning effectiveness, especially when technology is key to teaching strategies.

SMA Negeri Sumber Harta PAI teachers also face difficulties monitoring overall smartphone use. Outside the classroom, it is difficult for teachers to ensure students use smartphones according to learning objectives. There is potential for abuse or distraction from non-learning applications, such as social media or games, that can interfere with learners' focus.

Teachers need to develop more creative and flexible strategies to overcome these challenges. One of the steps that can be taken is to utilise offline content, such as providing PDFS or videos that can be downloaded when there is internet access, so that students can still learn even if the signal is weak. Teachers can also conduct additional technical Education to improve students' skills in utilising smartphones productively.

Teachers need to create more effective supervision systems, such as establishing strict rules on smartphone use and providing an in-depth understanding of the importance of ethics in using technology. With this creative and inclusive approach, PAI teachers can ensure that all students can still participate in learning, regardless of existing technical constraints.

## **The Importance of Technology Skills for Teachers**

PAI teachers at SMA Negeri Sumber Harta must continue improving their technological competence in the ever-growing digital era. With rapid technological advancements, teachers need to get used to using the latest applications relevant to religious learning and understand how to use these technologies to create a more interactive and meaningful learning experience for students.

Teachers who have a good understanding of the use of technology can design more innovative learning, which can increase student engagement. For example, they can use educational apps to teach tajweed, apply learning videos to explain complex concepts, or use online discussion platforms to encourage student collaboration in group projects.

Regular technology training for teachers is essential. This training can include introducing new applications, effectively using social media for learning, and techniques for managing classes digitally. Teachers can keep their knowledge and skills current by attending relevant training and seminars and sharing best practices with their peers.

Thus, developing technological competence for teachers is not only a necessity, but also an investment to improve the quality of Education in schools, ensuring that students get relevant and practical learning. Strengthening this competency will positively impact the learning process and students' understanding of religious materials in a broader context.

## **CONCLUSION**

The findings of this study show that the strategies implemented by PAI teachers include integrating technology in teaching methods, using relevant digital platforms, and fostering effective communication between teachers and students. Although there are challenges, such as limited infrastructure and obstacles in understanding technology by some students, overall, the use of smartphones can increase students' motivation and learning outcomes.

Islamic religious education teachers at SMA Negeri Sumber Harta Musi Rawas Regency have successfully used smartphones in the learning process through educational applications, social media, and online learning platforms. Through these tools, teachers can increase student interaction, facilitate access to subject matter, and enrich the learning experience.

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