

# Integration of Technology in the Learning of *Al-Islam and Kemuhammadiyah* at Muhammadiyah Elementary School

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## ABSTRACT

*Al-Islam and Kemuhammadiyah* are characteristics of Muhammadiyah-based schools. *Al-Islam and Kemuhammadiyah* have cultural and religious values that are expected to be implemented in everyday life. This research aims to 1) Analyze the integration of technology in learning *Al-Islam and Kemuhammadiyah* and 2) Analyze the supporting and inhibiting factors for integrating technology in learning *Al-Islam and Kemuhammadiyah* at SD Muhammadiyah Purwodiningratan Yogyakarta. The type of research is qualitative with a case study approach. The research subjects were the school principal, *Al-Islam and Kemuhammadiyah* teachers, and students. Data collection techniques use observation, interviews, and documentation. The collected data was analyzed by data collection, data reduction, data presentation, and drawing conclusions. The results show that 1) Technology integration in *Al-Islam and Kemuhammadiyah* learning contains 6 stages, namely (a) Integration of learning technology through analysis of student characteristics, (b) Determining learning objectives by integrating technology, (c) Choosing methods, media, and teaching materials by integrating technology, (d) Using media and teaching materials by integrating technology, (e) Student activity in learning integrated with technology, (f) Evaluation and revision of learning integrated with technology and. (2) Supporting and inhibiting factors for technology integration in *Al-Islam and Kemuhammadiyah* learning include teacher capacity development training, adequate school facilities to support technology integration, and use of social media. Meanwhile, the inhibiting factors are, time utilization is not optimal, technology maintenance is lacking, and students are less focused when receiving learning so they become lazy in studying.

## 1. INTRODUCTION

*Al-Islam and Kemuhammadiyah* Education is an islamic education framework pioneered by K.H. Ahmad Dahlan with the vision of creating superior islamic education in both religious sciences and science and technology (Suyatno, 2023). *Al-Islam and Kemuhammadiyah* education adheres to a moral and conventional reasoning system in which cultural and religious values are the core of its content, with the hope that these values can be practiced in students' daily lives. *Al-Islam and Kemuhammadiyah* are a form of education that includes the Qur'an and Hadith, Aqidah, Akhlak, Fiqh, and *Kemuhammadiyah* (Saputra et al., 2019).

Practicing religious values is certainly not easy. This must be assisted by teachers in the teaching of *Al-Islam and Kemuhammadiyah*. Teachers must have the right strategies so that religious values can be understood and internalized by students (Suyatno et al., 2023). Teachers currently still apply traditional teaching strategies in *Al-Islam and Kemuhammadiyah* education. When traditional teaching is implemented, there is often a lack of interactivity between teachers and students, as well as a lack of motivation and student involvement. However, to practice religious values, active students with motivation in learning are needed so that they can understand the entirety of the lesson and make the learning process engaging. Therefore, one of the strategies and innovations in learning can be through the integration of technology (Panggabean & Hidayat, 2022).

The rapid development of technology has influenced changes in the learning system. In the current technological era, students are required to master problem-solving skills, critical thinking, and creativity that align with 21st-century competencies (Dewi & Hasmirati, 2022). Technology allows the learning of *Al-Islam and Muhammadiyah* to reach students more broadly through online platforms and social media used to disseminate materials to students, even for the younger generation and the community (Puspita & Suyatno, 2024). The integration of technology in the learning of *Al-Islam and Muhammadiyah* can help bridge the gap between religious teachings and modern life (Rahmadani & Suyatno 2024; Suyatno, 2024). This is important to ensure that Islamic values can be applied in the context of everyday life that is constantly evolving. Therefore, the integration of technology in the learning of *Al-Islam and Kemuhammadiyah* becomes important to implement in order to enhance quality, effectiveness, and relevance in the current digital era (Wijaya, 2023).

Education today implements policies with a free learning curriculum, where teachers play an important role in designing creative and innovative learning and encouraging students to be active in their learning. Therefore, teachers are required to be innovative in conducting classroom learning. Innovative teachers can help face global challenges and improve school quality even though teachers are no longer the center of learning (Asih et al., 2022). Supandi's (2020) research shows that teachers have not yet been able to use digital technology, as evidenced by the fact that 12 teachers have never created technology-based learning media. This means that teachers need technology training, both independently and in classes, to develop their technological skills, and schools must facilitate teachers in developing their technological abilities as well as assist both teachers and students in integrating technology into the learning process.

Based on an interview with the head of Muhammadiyah Purwodiningratan Elementary School regarding the integration of technology in AIK learning, *Al-Islam and Kemuhammadiyah* teachers are required to undergo training to develop their skills in learning technology. Muhammadiyah Purwodiningratan Elementary School has also provided supporting facilities in each classroom, namely projectors and projector screens, so that teachers can easily integrate technology into their teaching. Based on the above background, the problems that can be formulated are as follows: (1) How is the integration of technology carried out by teachers in the teaching of *Al-Islam and Kemuhammadiyah* at Muhammadiyah Purwodiningratan Elementary School?; (2) What are the supporting and inhibiting factors for the integration of technology in the teaching of *Al-Islam and Kemuhammadiyah* at Muhammadiyah Purwodiningratan Elementary School? The purpose of this research is to find answers to the aforementioned problem formulation. The objectives of this research are as follows: (1) To analyze the integration of technology in *Al-Islam and Kemuhammadiyah* learning, and (2) To analyze the supporting and inhibiting factors of technology integration in *Al-Islam and Kemuhammadiyah* learning at Muhammadiyah Purwodiningratan Elementary School of Yogyakarta.

## 2. METHODS

This research falls under qualitative research with a case study approach. According to Adlini (2022), qualitative research is research that emphasizes overall description by explaining a current situation or describing someone's behavior. The case study approach is a useful method for understanding a problem in depth and identifying phenomena in descriptive form (Assyakurrohim et al., 2022). This research will examine the integration of teacher technology in the teaching of *Al-Islam and Kemuhammadiyah*, the internal and external supporting and inhibiting factors in integrating teacher technology in the teaching of *Al-Islam and Kemuhammadiyah*.

## 3. RESULTS AND DISCUSSION

### 3.1 Integration of technology in the learning of *Al-Islam and Kemuhammadiyah*

This research aims to analyze the integration of technology in *Al-Islam and Kemuhammadiyah* learning at SD Muhammadiyah Purwodiningratan and the supporting and inhibiting factors in the implementation of technology integration in *Al-Islam and Kemuhammadiyah* learning at SD Muhammadiyah Purwodiningratan.

### **a. Integration of learning technology through the analysis of student characteristics**

The aspect of identifying technology integration through student character can be analyzed in several categories, namely students' readiness to integrate technology into learning and students' learning styles.

#### **1) Students' readiness to integrate technology into learning.**

The teacher observes the students' age and their ownership of technology. Based on interviews with Al-Islam and Muhammadiyah teachers, it was stated that "students are ready to use technology, as seen from the average age of students between 10-11 years, where at this age students have a high level of curiosity and prefer concrete learning." The results of the interview with the teacher can be concluded that at that age, it is the right or appropriate age for the use of technology. The right age with supporting facilities will be able to increase students' confidence in technology. As per the results of an interview with a teacher who said, "children nowadays already have their own smartphones." The use of smartphones makes students more prepared and confident in technology. Therefore, it can be concluded that the age of 10-11 years is the right age for students to receive technology, supported by the ownership of smartphones by students, which makes them more confident in learning that integrates technology into *Al-Islam and Kemuhammadiyah* education.

#### **2) The learning styles of students in the integration of learning technology.**

The teacher observes the students' learning styles and designs the lessons based on the students' learning styles. The results of the interview with the students revealed that one student said, "I prefer looking at pictures and listening," while another student added, "I can use everything, whether it's looking at pictures, listening, or using teaching aids." It can be observed that students have different learning styles, but they tend to prefer visual learning and auditory learning styles. The preference for learning styles aligns with the interview with the teacher who stated, "The learning styles in the 5th grade vary; some prefer visual, auditory, and kinesthetic." However, on average, they prefer a combination of visual learning and auditory learning. Providing the appropriate learning style can make it easier for students to absorb, process, and explore the information they receive. Therefore, it can be concluded that the learning styles possessed by students vary. Teachers need to identify students' learning styles in order to determine the appropriate methods for teaching Al-Islam and Kemuhammadiyah by integrating suitable technology.

### **b. Determining learning objectives by integrating learning technology**

Determining learning objectives is the goal that must be achieved in the learning process. Determining learning objectives that integrate technology can be achieved through the development of learning objectives that are integrated with technology. Learning objectives can be developed from the syllabus or curriculum in *Al-Islam and Kemuhammadiyah* education. The results of the

interview with the *Al-Islam and Kemuhammadiyah* teachers conveyed that "I develop the learning objectives from the curriculum, because sometimes the curriculum does not align with the learning styles of students who generally prefer visual and auditory learning, so I also develop it by integrating technology into the learning." The development of learning objectives is carried out to facilitate teachers in conducting lessons, provide guidance for students in acquiring knowledge, and serve as a reference in determining the success of the learning process. Therefore, the development of learning objectives can be based on the ABCD elements (Audience, Behavior, Condition, Degree). Based on the results of the interview with the teacher who said, "I improve using the ABCD components by considering the characteristics of the students." The use of the ABCD elements with tools and materials that integrate technology can become an interesting variation of learning.

<b>Tujuan Pembelajaran</b>	<ol style="list-style-type: none"> <li>Melalui powerpoint siswa dapat meyakinkan adanya hari akhir dengan benar</li> <li>Melalui gambar siswa dapat menyebutkan sikap ghibgib yang di maksud dari sebagai bentuk keimanan kepada hari akhir dengan benar</li> <li>Melalui buku siswa dapat menjelaskan makna iman kepada hari akhir dengan benar</li> <li>Melalui diskusi kelompok siswa dapat menceritakan pengalaman peristiwa hari akhir dengan benar</li> <li>Melalui penjelasan dari buku siswa dapat mengetahui makna kalimat 'aqib dengan benar</li> <li>Melalui penjelasan dari guru siswa dapat menemukan istilah beriman kepada hari akhir dengan benar</li> <li>Selanjut penjelasan dari guru siswa dapat membuat peta konsep perjalanan di hari akhir secara berkolaborasi dengan benar</li> </ol>
<b>Profil Pancasila</b>	<ul style="list-style-type: none"> <li>• Beriman Bertakwa kepada Tuhan YME dan Berakhlak Mulia</li> <li>• Berkebhinekaan Global</li> <li>• Mandiri</li> <li>• Berkeadilan</li> <li>• Krisis</li> <li>• Inovasi</li> </ul>
<b>Kata kunci</b>	Iman, hari, kurban
<b>Target Peserta Didik</b>	Peserta didik kelas V SD Muhammadiyah Puncungningrat
<b>Jumlah Siswa</b>	80 Peserta didik (termasuk kelas lima)
<b>Assesmen</b>	<ul style="list-style-type: none"> <li>• Cara menilai ketercapaian tujuan pembelajaran</li> <li>• Assesmen individu</li> <li>• Assesmen kelompok</li> </ul>
<b>Jenis Assesmen</b>	<ul style="list-style-type: none"> <li>• Presentasi</li> <li>• Prorak</li> </ul>

Figure 1. Learning Objectives with ABCD Elements

Figure 1 shows the learning objectives that have been integrated with technology, as seen in the sentence "Through PowerPoint," which means the teacher integrates technology into *Al-Islam and Kemuhammadiyah* learning as tools and resources that support an effective learning process. Thus, it can be concluded that the teacher determines the learning objectives of *Al-Islam and Kemuhammadiyah* by developing them from books, syllabi, or curricula, improving them using the ABCD elements that incorporate technology integration in learning, offering a richer and more diverse learning experience.

**c. Choosing methods, media, and teaching materials by integrating technology**

The selection of appropriate methods, media, and teaching materials by integrating learning technology is an important step in creating an engaging and effective teaching and learning process.

**1) The selection of methods by integrating learning technology**

Learning methods have two types, namely student-centered and teacher-centered. Based on the data analysis results with the *Al-Islam and Kemuhammadiyah* teachers, they stated, "for the method itself, I adjust it to the students' learning styles, where students prefer visual and auditory learning styles, so I sometimes show educational videos and students make conclusions from the

learning material in those videos." This is consistent with the observations that have been made where the teacher shows educational videos to the students. It can be concluded that the above learning is student-centered by integrating technology into *Al-Islam and Kemuhammadiyah* education.

## **2) Selection of media by integrating learning technology**

The use of media is aimed at increasing student motivation so that students become more active in providing responses, feedback, and encouraging students to try new things. Based on the results of data analysis with the *Al-Islam* and *Muhammadiyah* teachers, it was stated, "I choose media by first looking at the *Muhammadiyah* learning materials, whether the media aligns with the learning objectives and the students' learning styles or not. Thus, the selection of appropriate media can help make the learning process more effective and efficient." In addition, the selection of media can also be based on the adequate facilities and infrastructure provided by the school, where adequate facilities support the learning process. The results of the data analysis explain "utilizing the technology already available at the school to help students better understand the learning material such as laptops, projector screens, projectors, sound systems, and printers." It can be concluded that the availability of adequate learning tools can help the implementation of technology-integrated learning media to become more efficient and effective. Learning media itself can take the form of slides, videos, or others. The selection of appropriate media will help students become more comfortable with *Al-Islam and Kemuhammadiyah* learning, as well as make the learning process more effective and efficient.

## **3) Selection of teaching materials by integrating learning technology**

The selection of teaching materials is carried out by modifying existing teaching materials into module form. Based on the data analysis results with the *Al-Islam and Kemuhammadiyah* teachers at SD *Muhammadiyah Purwodiningratan*, they stated, "The teaching materials I developed are in the form of teaching modules adjusted to the students' conditions, but I more often use books or videos." The teacher develops teaching materials that integrate technology in the form of teaching modules, which are developed from existing books and curricula. The use of teaching materials can help make learning more systematic and facilitate as well as improve the quality of education.

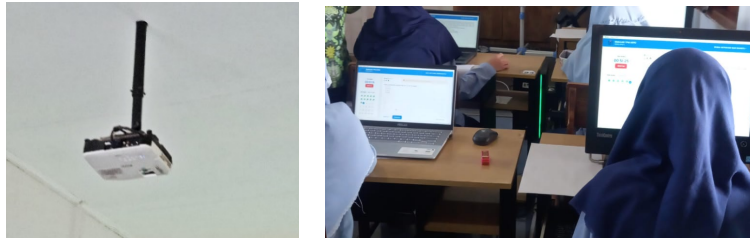
### **d. The use of media and teaching materials by integrating technology**

The use of media and teaching materials by integrating technology depends on the teacher's ability and the school's facilities, which will make learning conducive, engaging, and enjoyable.

#### **1) The teacher's ability to use media and teaching materials by integrating technology**

Teachers already have the ability to master and apply technological tools. The results of the data analysis, the principal stated that "Teachers who have a good understanding of technology can implement learning media effectively, in addition, the teachers are proficient in using Canva."

Therefore, there is a need for teachers' ability to integrate technology into learning. In addition to the teachers' good abilities, adequate school facilities are also necessary.



**Figure 2.** School facilities

Figure 2 shows several school facilities that support the learning process by integrating technology, especially in the study of *Al-Islam and Muhammadiyah*. The availability of adequate facilities and the comfort of the students will ensure that the learning process proceeds as expected.

## **2) The use of media and teaching materials by integrating technology**

The use of media was carried out using PowerPoint and educational videos. The results of the observational data analysis show that the teacher teaches *Muhammadiyah* education using PowerPoint and educational videos.



**Figure 3.** Muhammadiyah learning uses PowerPoint and video media.

Figure 3 shows that in the *Al-Islam and Kemuhammadiyah* learning process, learning media is chosen using PowerPoint, question and answer sessions, and educational videos as well as books. The teacher prepares the PowerPoint media using Canva and YouTube for videos; the teacher needs a laptop and internet to create these media. During the lesson, students listen to a brief explanation from the teacher and the educational video, then they summarize and condense the learning material from the video that has been shown.



**Figure 4.** Islamic studies use PowerPoint and video media.

Figure 4 is an *Al-Islam* lesson using PowerPoint and video media on the topics of *Qurban* and *Aqiqah*. The teacher provided a brief explanation of the material, then showed a video through YouTube. The teacher created a PowerPoint using Microsoft PowerPoint as an aid and showed the students focusing on the lesson. The use of media in *Al-Islam* learning with the subject matter of *Worship*, specifically regarding *Qurban* and *Aqiqah*, is provided in the form of PowerPoint presentations, video screenings, and books. Thus, it can be concluded that the integration of technology in *Al-Islam and Kemuhammadiyah* education is through the use of media and teaching materials such as PowerPoint, educational videos, and books. Teachers also utilize Canva and YouTube and require a laptop and internet to create these media.

#### **e. Student engagement in technology-integrated learning**

Involvement can encourage students' activities to engage in learning and shape a constantly active personality, allowing students to consciously understand the importance of learning. Providing practice questions with short questions, such as quizzes and discussions. The results of data analysis through interviews with *Al-Islam and Kemuhammadiyah* teachers conveyed, "Effective teaching and learning activities require students to be actively involved during assignments, question and answer sessions, group discussions, and when presenting the results of student discussions." Well, I once conducted a group discussion using the CCA model, then I asked questions through a PowerPoint slide and they competed to answer, those who answered correctly would earn points. The goal is to determine how well they understand the material that has been presented and to enhance their sense of competence, as well as to make students actively participate in the learning process. Students also feel happy when the teacher gives quizzes because it can train their understanding of the material provided by the teacher. The results of the above observations, interviews, and documentation indicate that the teacher integrates technology into the learning process by providing Arabic language questions using PowerPoint slides, and students actively answer these questions. The teacher also uses the Quizizz application, but it is not yet maximized. The *Al-Islam and Kemuhammadiyah* teacher at SD Muhammadiyah Purwodiningratan has students actively answering questions through PowerPoint slides containing images and text, thereby



integrating technology into the learning process. This is to gauge the extent of the students' understanding and to motivate them in their studies, creating a conducive, enjoyable, and non-boring classroom atmosphere.

#### **f. Evaluation and revision of learning integrated with technology**

##### **1) Learning evaluation integrated with technology**

The teacher evaluates by looking at whether the learning objectives have been met and whether the students' grades meet the KKTP or not. The results of the interview with the *Al-Islam and Kemuhammadiyah* teachers conveyed, "I conduct evaluations by assessing the learning process, whether the learning process achieves the predetermined learning objectives, whether the methods, media, and teaching materials can assist students in the learning process, whether students are active in the learning process, or how it is." Improvements to the learning evaluation are made if students receive a learning score below the KKTP. The evaluation of learning is conducted to assess students' understanding, which will be improved if necessary. The teacher uses media that can facilitate the processing of student grades. Based on the data analysis results, it was conveyed, "I input the grades using Microsoft Excel, then to allow students and parents to know the students' work results, I upload them to SIPUR, which with this application can make it easier for both students and parents." The teacher evaluates learning by looking at the students' grades, and the school has developed an application called SIPUR, which allows teachers, students, and parents to easily share and view students' work. Before uploading it, the teacher processes the students' grades using Microsoft Excel first, and only after finishing is it uploaded. The existence of the SIPUR application not only makes it easier but also helps students view their grades anytime and anywhere because it is not easily lost like on paper.

##### **2) Revision of learning integrated with technology**

Revisions are made if the learning has not yet met the intended educational objectives. The results of the data analysis with the *Al-Islam* teacher conveyed, "I usually make revisions if the students have not met the expected scores, and I usually improve the students' scores by giving them additional questions." This means that if the student has already achieved a score above the KKTP, then there is no revision for that lesson.

### **3.2 Supporting and inhibiting factors for the integration of technology in *Al-Islam and Kemuhammadiyah* education**

#### **a. Supporting factors**

##### **1) Teacher capacity development training**

Teachers improve their skills by participating in self-training and classes. The training can make teachers more confident, inspire them, and broaden their perspectives on technology, allowing them to integrate technology into AI-Islam and Muhammadiyah education.

## 2) Adequate school facilities

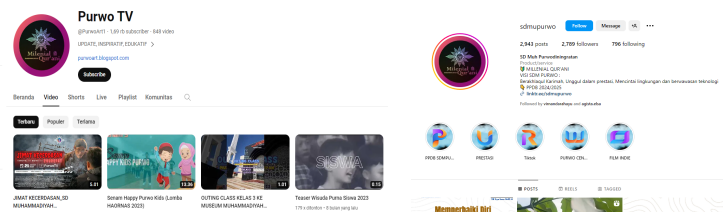


**Figure 5.** Library of SD Muhammadiyah  
Purwodiningratan

Figure 5 is the library at SD Muhammadiyah Purwodiningratan, showing the installed projector. The computer serves as a tool for the administration of book lending in the library. The projector itself is used when students get bored with classroom learning to re-energize them in following the lessons. The computer itself is used to record students when borrowing books to make it easier and prevent books from getting lost. Based on interviews, observations, and documentation, it can be seen that the facilities and infrastructure of SD Muhammadiyah Purwodiningratan are adequate and can support the implementation of learning by comfortably integrating technology.

## 3) The use of social media

SD Muhammadiyah Purwodiningratan utilizes social media as a medium to provide information to students, parents, and the community. With the presence of social media, it becomes easier to obtain information about SD Muhammadiyah Purwodiningratan. Some of the social media used include X, Instagram, Facebook, website, YouTube, WhatsApp, TikTok, and the application created by SD Muhammadiyah Purwodiningratan, which is SIPUR (Sistem Informasi Purwo).





**Figure 6.1** Utilization of social media

Figure 6 shows the social media used by SD Muhammadiyah Purwodiningratan. It can be concluded that the school has integrated technology through social media. The presence of school social media can create connections between the school, teachers, students, and parents. Social media also makes it easier for schools to provide important information related to the school and can broadly attract and entice the community to enroll their children in the school.

## **b. Hindering factors**

### **1) The time is not yet optimal**

Time is an important aspect to consider. The results of the teacher's data analysis conveyed, "The learning time feels short when using PowerPoint and videos, making the learning not optimal." when teaching Al-Islam and Muhammadiyah with the subject of qurban, which should have included a memorization assessment at the end of the lesson, but due to insufficient time, the memorization was done on another day. Therefore, the teacher needs to manage time so that the teaching and learning process is more optimal. Good learning facilities certainly also require good maintenance. However, maintenance is certainly not easy and requires quite a significant amount of money. Therefore, technology maintenance becomes one of the inhibiting factors in integrating technology into the learning of Al-Islam and Kemuhammadiyah.

### **2) The students' lack of focus in learning and becoming lazy**

Technology that can be used anywhere and anytime makes students lazy to move and dependent. This also makes students less focused on paying attention to the teacher during lessons. The results of the data analysis with the Al-Islam and Muhammadiyah teachers indicated, "Classroom conditioning is quite difficult because students are less focused on paying attention to the lesson." Students who do not pay attention to the teacher during lessons will have difficulty understanding the material presented by the teacher. In addition, students will also become lazy due to their dependence on technology. Thus, teachers have the task of creating a conducive and enjoyable classroom atmosphere and paying more attention to students.

### 3.3 Discussion

This discussion aims to address the problem formulation, namely: 1) Analyzing the integration of technology in the teaching of Al-Islam and Kemuhammadiyah at SD Muhammadiyah Purwodiningratan. 2) Analyzing the supporting and inhibiting factors of technology integration in Al-Islam and Kemuhammadiyah learning at SD Muhammadiyah Purwodiningratan. Based on the research and data analysis that have been conducted, there are several pieces of information as follows.

#### 1. Integration of learning technology through the analysis of student characteristics

The integration of technology in Al-Islam and Kemuhammadiyah learning at SD Muhammadiyah Purwodiningratan is carried out by analyzing student characteristics. Analyzing student characteristics is an important step in designing effective learning that meets students' needs (Sari et al., 2022). Understanding student characteristics can be achieved through cognitive development, learning styles, technological readiness, and socio-emotional factors in order to optimally integrate technology into learning. Student characteristics can be defined as the traits of individual student quality to assess their learning needs (Dewi, 2021). With the analysis of student characteristics, teachers can determine the methods, models, and media to be used (Muzakki et al., 2021). Based on the results of the analysis of student characteristics in the integration of technology in *Al-Islam and Kemuhammadiyah learning* at SD Muhammadiyah Purwodiningratan, an analysis of student characteristics was conducted by observing students' readiness for technology and their learning styles.

#### 2. Determining learning objectives by integrating learning technology

Al-Islam and Kemuhammadiyah teachers at SD Muhammadiyah Purwodiningratan formulate learning objectives by developing them from the syllabus, curriculum, and books. The development of learning objectives is adjusted to the material to be taught and considers the integration of technology to be implemented. In line with Fahrurrozi's (2021) research, which states that the alignment between learning objectives and teaching materials is an important factor in achieving effective learning outcomes.

#### 3. Choosing methods, media, and teaching materials by integrating learning technology

Al-Islam and Kemuhammadiyah teachers at SD Muhammadiyah Purwodiningratan choose teaching methods by considering students' learning styles. The chosen method is a student-centered learning approach that utilizes technology such as PowerPoint slides and educational videos. This method aims to encourage active student participation in the teaching and learning process. The selection of student-centered methods aligns with Panggabean's (2021) view, which states that each individual has different characteristics, so teachers must be able to accommodate this diversity in

learning. Student-centered methods allow students to actively engage in constructing their own knowledge, making learning more meaningful (Sandria et al., 2022; Pertiwi et al., 2022).

#### **4. The use of media and teaching materials that integrate learning technology**

*Al-Islam and Kemuhammadiyah* teachers at SD Muhammadiyah Purwodiningratan have integrated technology in the use of media and learning materials. The media used include PowerPoint slides, educational videos, and textbooks. Teachers utilize applications such as Canva to create engaging PowerPoint slides and YouTube to find educational videos relevant to the material. The use of technology-based media is supported by the availability of adequate facilities at SD Muhammadiyah Purwodiningratan, such as laptops, projectors, projector screens, speakers, computer laboratories, and internet connectivity. The availability of these facilities allows teachers to integrate technology more optimally in the teaching of *Al-Islam and Kemuhammadiyah*.

The ability of teachers to operate technological devices, design engaging learning media, and select digital teaching materials that align with learning objectives is something that needs to be considered (Wijaya et al., 2021; Muthoharoh, 2019). The results of the data analysis show that the *Al-Islam and Kemuhammadiyah* teachers at SD Muhammadiyah Purwodiningratan have the ability to integrate technology into their teaching. Teachers are able to use the Canva application to create attractive and informative PowerPoint slides. The teacher is also able to utilize various technological devices such as laptops, projectors, and speakers to support the delivery of learning materials. Supported by Amalia's (2020) opinion, a teacher must be able to use and utilize technology for the purpose of learning. Teachers are required to adapt to technological developments and integrate them effectively into the daily teaching and learning process.

#### **5. Student engagement in technology-integrated learning**

*Al-Islam and Kemuhammadiyah* teachers at SD Muhammadiyah Purwodiningratan have implemented various strategies to enhance student engagement in learning by integrating technology. The strategies used include providing practice questions through digital media and conducting interactive question-and-answer sessions. The provision of practice questions through digital media such as PowerPoint slides or interactive quiz applications has proven effective in increasing active student participation in *Al-Islam and Kemuhammadiyah* learning. The teacher provides questions or exercises through PowerPoint slides, then asks students to answer or complete the exercises directly. This strategy makes students more focused and challenged to actively engage in learning (Damanik & Seleky, 2022).

## **6. Evaluation and revision of learning integrated with technology.**

*Al-Islam and Kemuhammadiyah* Education at Muhammadiyah Purwodiningratan Elementary School, learning evaluation is conducted by integrating technology. Teachers use various methods and technology-based media to assess students' understanding and skills related to the material that has been learned. The integration of technology in learning evaluation aims to enhance the efficiency, effectiveness, and objectivity of assessments. Based on the results of data analysis, *Al-Islam and Kemuhammadiyah* teachers at SD Muhammadiyah Purwodiningratan have utilized technology in the process of grade processing. Teachers use the Microsoft Excel application to record and process student grades. The use of this application helps teachers calculate grades more quickly, accurately, and efficiently compared to manual methods. The processed assessment results are then uploaded into the SIPUR (Sistem Informasi Purwodiningratan) application provided by the school. This application is a digital platform that allows students and parents to access information related to learning, including students' academic scores. With the SIPUR application, the process of communication and reporting student learning outcomes becomes more transparent and effective.

## **7. Supporting and inhibiting factors of technology integration in *Al-Islam and Kemuhammadiyah***

### **a. Supporting factors**

The results of the research conducted at SD Muhammadiyah Purwodiningratan show that teacher training has been carried out. Teachers improved their skills by participating in technology training independently and in class. Those trainings help teachers become more confident, inspired, and broaden their perspectives. The facilities at SD Muhammadiyah Purwodiningratan are also supportive of learning by integrating technology, such as the availability of projectors, projector screens, speakers in all classrooms, and smooth wifi or internet connectivity. Other supporting factors such as social media also play an important role in the integration of technology in learning. This is supported by Nasution's (2020) research that social media can be integrated into learning through Facebook, WhatsApp, Twitter, TikTok, YouTube, and Instagram. SD Muhammadiyah Purwodiningratan has already utilized these social media platforms such as websites, Facebook, WhatsApp, Instagram, YouTube, TikTok, and X, as well as its own developed application, SIPUR, which is filled with important information and learning content.

### **b. Hindering factors**

The results of the data analysis conducted at SD Muhammadiyah Purwodiningratan indicate that teachers face several obstacles in integrating technology into *Al-Islam and Kemuhammadiyah* lessons, namely the time that has not been maximized in delivering the material. When students are not yet ready to receive *Al-Islam and Kemuhammadiyah* lessons

and teachers are still preparing technological devices to integrate technology into the lessons, the teaching time will be further reduced, causing teachers to run out of time during the lesson. An interview with TR, the principal of SD Muhammadiyah Purwodningratan, revealed that one of the obstacles in integrating technology into learning is the maintenance of technology, which requires a lot of funds. Devices that are used continuously obviously require maintenance. For example, the projectors in each classroom require air conditioning to prevent overheating during use, whereas not all classrooms at SD Muhammadiyah Purwodningratan have air conditioning. The maintenance of this technology can be said to require a lot of costs, so a well-thought-out budget plan must be made. Another obstacle to the integration of technology in learning is that students become less focused during lessons and lazy due to their dependence on technology. Supported by Dwistia's (2022) research, one of the impacts of technology in learning is that students become less disciplined and lazy. Students become lazy due to their dependence on technology, which provides various types of information they need. The obstacles to technology integration can be overcome by making thorough plans; however, it can be said that the integration of technology in learning is not being carried out optimally.

#### 4. CONCLUSION

The research results show that the integration of technology in *Al-Islam and Kemuhammadiyah* learning at SD Muhammadiyah Purwodningratan is related to the analysis of students' readiness for technology and learning styles; learning objectives are developed from the curriculum with an ABCD approach integrated with technology; teaching methods and media are chosen based on technology, including the use of modules, videos, and books; media such as PowerPoint and educational videos are used effectively; students are actively engaged through exercises with PowerPoint and Quizizz; evaluation is conducted using Excel and the SIPUR application; revisions are made if students' results do not meet KKTP standards. Supporting factors for the integration of technology in *Al-Islam and Kemuhammadiyah* learning at SD Muhammadiyah Purwodningratan include teacher training, adequate technological facilities, and the use of social media. Factors hindering the integration of technology in *Al-Islam and Kemuhammadiyah* Learning include time constraints and student readiness at the beginning of lessons, inadequate technology maintenance, and students' lack of focus due to technology dependence.

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