

## **The Use Of Smart Class Applications In Digital Learning In Islamic Religious Education Subjects**

**Achmad Farhan**

Universitas Islam Negeri Sunan Ampel Surabaya

Korespondensi: [achmadfrhn15@gmail.com](mailto:achmadfrhn15@gmail.com)

### **ABSTRACT**

This research examines the use of the Smart Class application in digital learning in Islamic Religious Education (PAI) subjects at SMP Muhammadiyah 15 Surabaya. Using a qualitative approach and case study method, this research aims to understand how the app affects learning quality and student engagement. Data were obtained through interviews and observations of teachers and students, focusing on the effectiveness and constraints of using the app. The results show that the Smart Class app, which is equipped with features such as animations, E-books and practice questions, has a positive impact on students' learning motivation. Teachers can deliver material in a more interesting and interactive way, although there are some constraints in curriculum suitability. The app has the potential to improve student learning outcomes if implemented effectively with training support for teachers.

**Keyword:** Smart Class app, mobile learning, Islamic Religious Education.

### **ABSTRAK**

Penelitian ini mengkaji penggunaan aplikasi Kelas Pintar dalam pembelajaran digital pada mata pelajaran Pendidikan Agama Islam (PAI) di SMP Muhammadiyah 15 Surabaya. Dengan pendekatan kualitatif dan metode studi kasus, penelitian ini bertujuan untuk memahami bagaimana aplikasi tersebut memengaruhi kualitas pembelajaran dan keterlibatan siswa. Data diperoleh melalui wawancara dan observasi terhadap guru serta siswa, dengan fokus pada efektivitas dan kendala penggunaan aplikasi. Hasil penelitian menunjukkan bahwa aplikasi Kelas Pintar, yang dilengkapi fitur seperti animasi, E-book, dan latihan soal, memberikan dampak positif terhadap motivasi belajar siswa. Guru dapat menyampaikan materi secara lebih menarik dan interaktif, meskipun terdapat beberapa kendala dalam kesesuaian kurikulum. Aplikasi ini memiliki potensi meningkatkan hasil belajar siswa jika diimplementasikan secara efektif dengan dukungan pelatihan bagi guru.

**Keyword:** Aplikasi Kelas Pintar, Pembelajaran digital, Pendidikan Agama Islam.

## **1. INTRODUCTION**

The development of information technology is increasingly rapid and advanced which is currently often known as the industrial revolution. (Saputri dan Fransisca 2020) The industrial revolution is a major change in technology that causes changes in other fields. The first industrial revolution began in 1750 when the steam engine was invented. The industrial revolution 2.0 began when there was a change in the use of steam engines to machines that used electric power. The industrial revolution 3.0 began when the production process was already using machines that were capable of moving and being controlled, starting with the use of simple robots, to the use of computers, then the industrial revolution 4.0, which is an era that uses systems to digital forms assisted by networks. Industrial Revolution 4.0 is a digital industrial era where all parts in it collaborate and communicate in real time anywhere at any time with the use of IT (information technology) in the form of the internet and CPS, IoT and IoS to produce new innovations or other optimizations that are more effective and efficient, with the changes that are formed, aiming to enable interactions and relationships between humans and machines and between machines. (Ayu, Zulkarnaen, dan Fitriyanto 2022)

The digital world offers great opportunities and benefits to the public. However, it presents challenges to all areas of life to improve the quality and efficiency of life. Society 5.0

is a human-centered society technology concept that collaborates with technological systems to solve social problems integrated in the virtual and real world. This concept was initiated by Japan in order to reflect on the rapid technological revolution so that it is more humanistic. Humans are not only objects of technology, but become the controlling subjects of scientific and technological progress (human centered society), so that in industry 4.0, people search, retrieve, and analyze information or data with services in cyberspace via the internet.(Ayu, Zulkarnaen, dan Fitriyanto 2022)

The development of digital technology can contribute to the progress of a nation's society by giving birth to a digital society, and as a counterweight to the advances in digital technology that have occurred in recent decades, Japan issued the idea of Society 5.0. Society 5.0 programs all objects and systems connected in cyberspace with artificial intelligence analysis that has the sophisticated ability to provide feedback to the physical space to humans.(Ayu, Zulkarnaen, dan Fitriyanto 2022) The digital era must be taken seriously, mastering and controlling the role of technology well so that the digital era brings benefits to life.

Indonesia is currently entering the era of revolution 4.0. In this era of the industrial revolution 4.0, fewer and fewer activities are physically bound to geographic locations. This is because all human activities are converting from manual to digital. Digital culture is the result of the industrial revolution 4.0 and the use of technology and the internet by people to interact, behave, think, and communicate in everyday life. Digital culture is a prerequisite for digital transformation because the application of digital culture is more about changing the mindset in order to adapt to digital developments. The development of digital culture is largely determined by the ability of the community regarding knowledge and technology.(Ayu, Zulkarnaen, dan Fitriyanto 2022)

The digital era forms a new order in which humans and technology coexist and collaborate. The digitalization process requires every human being to be ready to transform digitally, and the Covid-19 pandemic is an escalation of the transformation of digital culture in society, making people's daily activities very dependent on information technology. The Covid-19 pandemic has become the main marker of the creation of cultural changes from conservative to digital culture in the Indonesian digital society. Even so, the changes in digital culture that continue to strengthen must be anticipated immediately through a program to strengthen digital literacy. The Covid-19 pandemic encourages remote work systems, uses video conferencing, and increases network capacity, so it has not been categorized as a digital transformation process. Information technology has encouraged the creation of a more dynamic digital culture. Digital culture has changed traditional culture which then encourages new forms of creative expression and offers new perspectives for intercultural communication.(Ayu, Zulkarnaen, dan Fitriyanto 2022)

Nowadays, the development of science and technology (IPTEK) is very fast. This affects our world of education, both in terms of infrastructure, as well as content in the form of: methods, models, strategies, approaches. In addition, the work system has also shifted from manual (conventional or traditional) to modern, IT or digital. Therefore, skilled, professional human resources are needed from educators and education personnel. Because, with the existence of skilled and professional educators and education personnel, it is not impossible to produce quality education. Quality education will be reflected in the personal qualities of students, through changes in attitude, behavior, speech and actions that are pleasant, civilized and cultured.

Technology is an important sector in the progress of a nation. Technology plays a role in making it easier to carry out activities, because it can penetrate all aspects of life, from providing newer, better, and faster ways for people to interact, get help, build networks, learn

and get access to information. Information and communication technology is considered very important to be developed in Indonesia, especially in the field of education which can be utilized as a support for successful learning. One example of technology implementation in education is learning media. Learning media is something that can be used to channel messages (learning materials), so that it can stimulate students' attention, interests, thoughts, and feelings in learning activities to achieve learning goals. The use of technology as a learning medium is familiar, ranging from very simple technology to sophisticated technology. Technology as a learning media can be utilized to attract students' interest in learning so that learning becomes more effective and efficient. (Septian dkk. 2024)

Especially now, we have entered 21st century education, whose characteristics according to the Ministry of Education and Culture are the availability of information anywhere and anytime, the implementation of the use of machines (computirization), able to reach all routine work (automation) and can be done anywhere and everywhere (communication). It was found that in the last 20 years, there has been a shift in educational development towards ICT, as one of the 21st century education management strategies which includes institutional and human resource governance. This century requires a comprehensive transformation of education, so as to build the quality of teachers who are able to advance knowledge, training, learner equity and learner achievement. (Ngongo, Hidayat, dan Wiyanto 2019)

The utilization of learning media is one of the alternatives that is often used by educators to create learning so that it can run effectively and efficiently. In addition, the utilization of learning media also functions so that students are not bored with monotonous learning models. Occasionally, students should be introduced to utilizing learning media that is around or by utilizing technology-based learning media. This will usually make them happier because the learning capacity becomes faster. For example, in the case of the Covid-19 pandemic where students have to study from home without any face-to-face contact with teachers and with their friends which causes the learning process to run less optimally. Many complaints and criticisms from parents of students point to their learning process which says it is still far from expected. This is certainly a concern for educators in teaching them during the Covid-19 pandemic. One way that can be done to maximize distance learning is to utilize digital technology media such as through the Google Meet platform, Google Classroom, WhatsApp, Zoom Meeting, and the like. (Prayitna dkk. 2022)

Nowadays, by using digital technology, students have many conveniences in learning. The availability of learning applications through smartphones is one of these conveniences. Smartphones are mobile phones that have a high level of capability and until now the enthusiasts are increasing sharply, especially in android smartphone users. Android is a new breakthrough in the field of technology, many applications that make it easier for android smartphone users to communicate and support daily activities, including learning. In the learning system, students not only act as recipients of messages, but students also act as communicators and messengers. This means that the learning process will occur if there is communication between the recipient of the message and the source / transmitter of the message through the media. In accordance with this, media is needed to increase the effectiveness of achieving learning objectives, making it easier for students to get learning that is easy to understand, and is expected to be able to raise students' confidence, especially in learning materials. (Septian dkk. 2024)

Learning media plays an important role in the learning process at school, as stated in Government Regulation of the Republic of Indonesia Number 19 of 2005 concerning National Education Standards CHAPTER VII Facilities and Infrastructure Standards Article 42 paragraph (1) which states that "Each educational unit is required to have facilities and infrastructure, educational equipment, educational media, books, and other learning resources

needed.” By utilizing existing learning media, it is hoped that the learning process will be maximally achieved, so that learning objectives can be achieved properly and according to what was previously planned. Currently, along with the reduction of Covid-19 pandemic cases, the Ministry of Education, Culture, Research and Technology (Kemdikbudristek) of the Republic of Indonesia launched one of the digital platforms as learning media in the implementation of the independent curriculum, namely learning media in the form of smart classes. The smart class is an educational service that provides technology-based learning solutions using smart, personalized, and integrated methods for elementary, junior high, and high school students, which were created by design to improve students' abilities and understanding of the material presented and the hope of getting maximum academic scores.(Prayitna dkk. 2022)

## 2. LITERATURE REVIEW

Multimedia Learning (2002) is a learning theory popularized by Richard R. Mayer used as a mental representation of images and words which became known as Cognitive Theory of Multimedia Learning (CTML). Multimedia Learning is the presentation of material using words and images intended to promote learning. The words can be printed text (such as text printed in a window on a computer screen) or spoken text (such as speech presented through computer speakers). The images can be static graphics such as photographs, drawings, maps, charts, pictures and tables or dynamic graphics such as video or animation. Multimedia as a presentation of material using both words and images. Words are materials in the form of verbal forms such as text and narration. Images are materials in pictorial form. Images can be static graphics (such as photos, charts, illustrations, and so on) and dynamic graphics (such as animation and video).(Putri dan Muhtadi 2018)

## 3. METHOD

This research uses a qualitative approach with a case study method. The qualitative approach was chosen because the purpose of this research is to deeply understand the use of smart class applications in Islamic Religious Education subjects and how they affect the quality of learning. Case study was chosen as a method because this research focuses on certain phenomena in a specific context, namely the use of smart class applications in digital learning in Islamic Religious Education subjects at Muhammadiyah 15 Surabaya Junior High School.

The type of model used by researchers is to use a type of descriptive qualitative research method whose purpose is to describe, explain and clarify and answer in more detail about the problems studied in the form of words or statements in accordance with actual conditions.(Harianti, Warsah, dan Asha 2024)

The data collection technique used in this research is by conducting interviews and observation methods. This instrument aims to provide a complete picture of the use of the Smart Class application in learning Islamic Religious Education. Interviews will explore teacher perceptions, while observations will see firsthand the effectiveness and constraints during the use of applications in the classroom.(Fauzan dan Hayani 2024)

Table 1: Indicators of teacher readiness

No	Indicator	Sub Indicator
1	Understand the concept of the Smart Class application	<ol style="list-style-type: none"> <li>1. Understand about Smart Class application.</li> <li>2. Understand the function and purpose of using the Smart Class application in PAI learning.</li> </ol>
2	Technical Skills	<ol style="list-style-type: none"> <li>1. Mastering the Smart Class application.</li> <li>2. Able to use all kinds of features in the Smart Class application.</li> </ol>

3	Pedagogical Knowledge	<ol style="list-style-type: none"> <li>1. Able to design PAI learning that is interesting and easily understood by students.</li> <li>2. Able to evaluate the effectiveness of using the Smart Class application in PAI learning.</li> </ol>
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Table 2: Teacher readiness questionnaire

No	Criteria assessed	SS	S	TS	STS
1	I already know the Smart Class application.				
2	I realize that the Smart Class application has an impact on PAI learning.				
3	I feel proficient in using the Smart Class application.				
4	I often use the Smart Class application.				
5	I feel more effective in delivering PAI material by using the Smart Class application.				
6	I often integrate the Smart Class app into my PAI lesson plan.				

The data analysis technique used is content analysis and then data reduction. Data reduction aims to simplify, classify, and discard unnecessary data so that the data can produce meaningful information and facilitate drawing conclusions. (Rijali 2018)

Observation or direct observation carried out at SMP Muhammadiyah 15 Surabaya to obtain information for research needs by using the interview method with sources, namely students of class 8H and the principal of SMP Muhammadiyah 15 Surabaya. Interviews are conducted to determine in advance the core of the problem that occurs by asking a number of questions to the source so that an overview will be obtained about how the use of smart class application learning media and what material is taught. (Sari dan Darmiyanti 2022)

#### 4. RESEARCH RESULTS

In the era of the industrial revolution 4.0, the application of modern technology such as fiber technology and integrated network systems, in all aspects of life makes humans very dependent on technology. In the field of education itself, technology now has its own role in the teaching and learning process. (Marisa dkk. 2023) Teachers must have high competence in working with the development of the era of globalization and modernization. Because teachers have such an important role in the development of the Industrial Revolution Era 4.0, a teacher must be able to master information in the field of subjects while also excelling in the field of technology and learning media. (Hartati dan Ulfa 2022)

Media is defined as everything that can be utilized to convey commands and can involve reasoning, include motivation, care, and desire of learners in order to help the state of learning procedures. Learning media refers to something that is used to channel messages (learning materials) to stimulate the care, interest, reasoning, and instincts of students in learning activities so that definite learning objectives are achieved. It can be concluded that learning media is an academic tool used as a negotiator in learning methods to increase the effectiveness and potential of learning objectives. (Hartati dan Ulfa 2022)

Technology has penetrated various aspects of life along with the times. Likewise in the field of education, media digitization has drained and streamlined the learning process, thereby improving learning outcomes. Furthermore, the teaching and learning process is more practical because it will remove or eliminate obstacles that educators may face in communicating to students, such as physiological, psychological, natural and cultural obstacles. In the learning process, teachers can use smart class application technology learning media such as Google Classroom which can measure the ability of digital iteration in students. (Hartati dan Ulfa 2022)

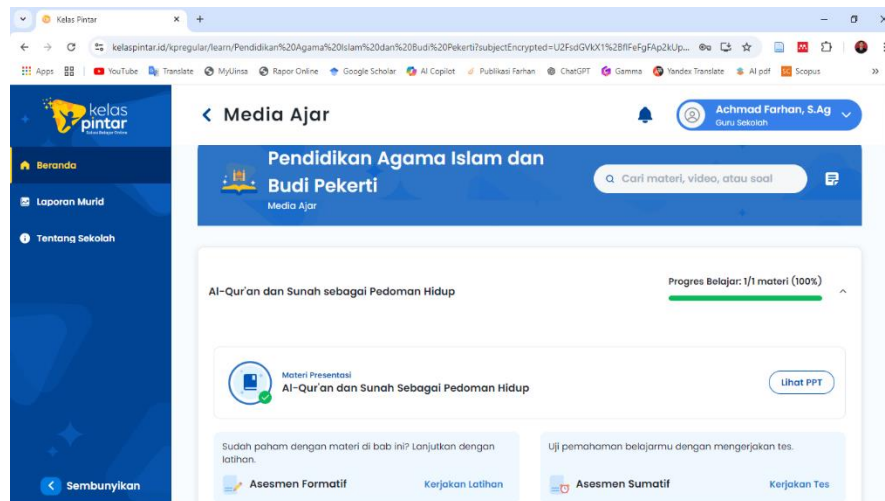


Figure 1. Smart Class Application for PAIBP Lessons

In carrying out active interactions in the teaching and learning process, learning media is needed that can attract the attention of students. therefore, teachers must use the right media in the teaching and learning process. The smart class itself can be used anytime both online and directly by applying it in the classroom, besides that this smart class application is very easy to access for students and teachers. Through this application, students can easily get various designs of subject matter, practice questions and do assignments given by the teacher. In addition, during the preparation of AKM, teachers can easily provide lesson materials online, interact online, give assignments and give exams online using the Monitoring feature. (Sari dan Darmiyanti 2022)

With the Learning media through this smart classroom application, the learning process will be easier for students and teachers . Teachers who use this application also previously held Bimtek in advance of the smart class. This Bimtek itself is about how to use the learning features that exist in smart classes. In addition, through this smart classroom application, for example, the thematic subject matter consists of Learning objectives, concept adventures, lesson animations and E-books that explain learning materials through video and audio-visual displays so that they can attract the attention of learners, with learning media like this can increase children's motivation in learning and understanding subject matter so that it can improve student academic achievement. (Sari dan Darmiyanti 2022)

The results of the data obtained from the interview statement of the principal of SMP Muhammadiyah 15 Surabaya, the author can explain that in conducting an active and creative teaching and learning process, it takes several efforts made by the principal and teacher in transferring knowledge to students. In this case, the principal accommodates the teachers by providing learning media through the Smart Class application so that teachers do not only race against the package book. Furthermore, teachers as educators must be able to manage learning media as tools or materials used in the teaching and learning process. The Media used can be visual media, audio-visual media or technology-based media such as Smart Class application-based learning Media is very helpful for teachers in the teaching and learning process by displaying very interesting features, one of which is the display of explanations of learning materials through animated videos that can stimulate students ' interest in learning, so that the results of student academic scores increase. In addition, through the Smart Classroom application, parents can monitor their child's learning progress, starting from the study schedule, completing assignments to the child's average grade performance for each subject.

However, the curriculum and Islamic religious education materials available in the Smart Classroom application are not the same and are not in accordance with the curriculum

set by the Assembly of Primary and Secondary Education of the Muhammadiyah East Java Regional Leadership. Therefore, there are still various kinds of polemics and criticisms and not infrequently some teachers file rejections and choose not to use the Smart Classroom application. But even though there are some shortcomings, researchers still maximize the use of Smart Classroom applications as a learning medium in the hope that students can follow the development of technology in the education system.

## 5. CONCLUSION

Researchers can conclude that to improve the value of academic achievement of students need the development and management of learning resources by using teaching materials that are creative and interesting so that learning is not boring for students, teachers can use learning media such as Smart Classroom applications. The use of this Smart Classroom application is very accessible for students and teachers consisting of Learning Objective features, concept adventures, lesson animations and E-books that explain learning materials through video and audio-visual displays so that they can attract the attention of learners. With the use of appropriate learning media can motivate students to achieve maximum learning outcomes. In addition, the use of appropriate and effective learning media and supported by the ability of teachers and the skills of teachers in delivering and mastering the material is expected to motivate students to improve the value of academic achievement.

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