Research Article

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# Development of Google System (GS) Based Learning Management at a Leading Islamic Junior High School (Research at Ar-Rafi Drajat Junior High School, Bandung City)

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**Abstract:** This research was conducted based on the author's curiosity to understand more deeply how the implementation of Google System (GS) can support effective learning management at a Leading Islamic Junior High School, especially in the digital era. The author is interested in exploring how GS technology can facilitate an innovative, interactive, and relevant learning process to today's educational needs, especially in the context of strengthening Islamic values. In addition, this study aims to answer the challenges in integrating digital technology with an active learning approach that focuses on developing 21st century skills, such as critical thinking, creativity, and collaboration. This study aims to develop an effective GS-based learning management model to be implemented at a Leading Islamic Junior High School, focusing on a case study at Ar-Rafi Drajat Junior High School, Bandung City. This study uses a qualitative approach with a case study method, which involves data collection through in-depth interviews, participant observation, and document analysis. The focus of this study is to explore the application of GS in supporting innovative, relevant, and effective learning processes in the digital era. This study found the GS-Based Islamic-Integrative Learning Management Model. It is called the GS-Based Islamic-Integrative Learning Management Model because learning integrates general science and Islamic science supported by GS (Google System) technology. This GS-Based Islamic-Integrative Learning Management Model is a model with an Integrative Approach that focuses not only on intellectual intelligence but also spiritual intelligence. A Learning Management Model that seeks to combine intellectual, social-emotional, and spiritual dimensions to achieve integrative education with the help of GS technology.

**Keywords:** Development of Google System (GS), Based Learning Management, Leading Islamic Junior High School.

## Introduction

The learning process in schools often experiences problems. Tasurun Amma explained that the factors behind learning problems can be seen in several factors. Internal factors are factors that arise from within the individual student, including differences in intelligence, lack of interest, motivation, and talent of students. Then external factors, namely the existence of the student's environment including teachers, the social life of parents, the community, and the school environment itself. Another external factor that is the reason for problems in learning is the institutional factor. This institutional factor is related to the curriculum. Thus, according to (Amma, 2021) that learning problems occur can be seen from how the objectives, content of teaching materials are delivered to students, a teacher's teaching pattern, and learning evaluation as one of the benchmarks for the success of learning in schools.

The success of learning in schools can be seen from the extent to which students become intelligent individuals, have good character or morals, and have practical skills for the good of their lives in society. Law of the Republic of Indonesia, Number 20 of 2003 concerning SISDIKNAS, Article 1 explains that education is

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a conscious and planned effort to create a learning atmosphere and learning process so that students actively develop their potential to have spiritual religious strength, self-control, personality, intelligence, noble morals, and skills needed by themselves, society, nation, and state (Kartika, 2021).

Basically, students are the determining element and the goal in the teaching and learning process. Without students, there will be no teaching process. Educators only try to meet the needs of students in accordance with the goals of education itself, namely, to educate the nation's life. Law of the Republic of Indonesia No. 20 of 2003 concerning the National Education System. Article 3 of the National Education System Law explains; "National education functions to develop and shape the character and civilization of a dignified nation in order to educate the life of the nation, aiming to develop the potential of students to become human beings who believe in and fear God Almighty, have noble character, are healthy, knowledgeable, capable, creative, independent, and become democratic and responsible citizens" (Kartika, 2022).

It is a reasonable reason if Islamic-based educational institutions become the hope for society in fostering the nation's generation. Schools labeled as Islam should be able to make changes, both intellectual changes that emphasize cognitive aspects, moral changes that emphasize affective aspects, and spiritual changes towards humans who are devoted to God Almighty. This character change aims to create the best human being, namely humans who can utilize and maximize all their potential. Islamic-based schools are a crucible to cultivate the potential of the nation's next generation with Qur'anic characters in the current industrial revolution era.

The industrial revolution has occurred four times. The first revolution occurred in England in 1784 when James Watt invented the steam engine. The operation of the steam engine and its mechanization began to replace human power.

Then, the second revolution occurred at the end of the 19th century where electrical production machines were used for production activities which also replaced steam engines. The era continued to move until the birth of computer technology that regulated manufacturing automation in 1970 so that the industrial revolution 3.0 could not be avoided. Currently, the rapid development of sensor technology, interconnection, and data analysis has given rise to the idea of integrating all these technologies into various industrial fields and the fourth Industrial Revolution occurred. Surprisingly, Japan on January 21, 2019, officially launched a new strategy to offset the increasingly uncontrolled acceleration of the industrial revolution 4.0. The era of society 5.0 is a concept of a human-centered society based on technology. Society 5.0 was born as a response to the Industrial Revolution 4.0 which was considered to have the potential to degrade the role of humans (Suherman, 2020).

The Japanese government calls society 5.0 where cyberspace and physical space are integrated. Everything will be easier with the use of Artificial Intelligence (AI). Physical limitations will also be assisted by robots that are easy to control with computers and the internet. In short, all life will be practical and automatic. The Society 5.0 era is a development concept to fix several problems because of the industrial revolution 4.0. If the vision of Society 5.0 is realized, the world will look very different.

According to (Suherman, 2020) society in the 5.0 era has a typical intelligent, critical, and highly literate nature in experiencing the dimensions of life. Human dignity must be the number one and foremost consideration (humanity is the first and ultimate consideration). Wise appreciation of humans as makers and users is built on the principle that humans should not be victims of the developments they make, including technology. Humans and the natural environment must be valued in a balanced and equal manner.

Technology at all levels of development must be devoted as much as possible to the interests of humanity, and for the balance of the natural environment.

Society 5.0 does not only focus on technological developments but also balances it with human needs as social beings. Basically, the Industrial Revolution 4.0 Era and the Society 5.0 era are two eras that describe the various ways of integrating cyber technology both physically and non-physically in innovation. The difference is, in the 5.0 era, humans become the subjects who regulate and control for the needs of civilization or what is called society.

In the Industrial Revolution 4.0 and society 5.0 there will be 9 technologies that will be the main pillars to develop a regular industry into a digital-ready industry. The nine technologies are 1). Internet of Things (IoT), 2). Big Data, 3). Augmented Reality, 4). Cyber Security, 5). Artificial Intelligence, 6). Additive Manufacturing, 7). Simulation, 8). System Integration, 9). Cloud Computing.

As for the relationship with Society 5.0, in the era of Society 5.0, technology is not only used for industry, but also to create a more humane and welfare-based society. The integration of GS in Islamic Religious Education learning reflects the vision of Society 5.0 by using technology to improve the quality of education without abandoning Islamic values. With the integration of GS, AI and Big Data can be utilized to adjust learning to the individual needs of students. Then by maximizing GS, digital skills can be built that remain oriented towards Islamic character and ethics. This study shows that Islamic education can develop along with digital technology without losing its religious values, which is in line with the vision of Society 5.0 which prioritizes the balance between technology and human values.

The Industrial Revolution 4.0 and the era of society 5.0 are certainly challenges for educational institutions in educating the nation's generation. Nine (9) technologies that will be the main pillars for developing a digital industry in this era should be taught to students. Digital competence is important in learning in schools. According to Suherman et al. in (Kusmawan, 2025), the competencies that must be possessed by everyone to prepare themselves for increasingly tight competition include competencies in Leadership, Language Skills, IT Literacy, Writing Skills.

Technology as a tool in preparing future generations. (Ifham Choli, 2020) in his research said that technological facilities need to be used as a tool for the struggle of Muslims in improving the quality of education and not vice versa as a barrier to creativity in thinking and acting for change for progress. Then Ifham explained that Muslims must continuously improve quality human resources in science and technology and faith simultaneously, or self-improvement towards spiritual, moral, and intellectual strength. The Islamic education system must have a sense of development towards a better direction so that existing educational institutions become laboratories for a harmonious future.

In relation to the Development of Learning Management, according to the author, the nine technologies mentioned above should be integrated as a whole unit in the learning of science taught in schools so that the sense of development as stated (Ifham Choli, 2020) leads to values of goodness based on information technology. There needs to be Development Management related to the design of learning that is in accordance with the challenges of the times. Learning components such as learning objectives, students, educators, materials, or subject matter, learning methods, media and evaluations which are a whole unit to create a maximum learning process. Islamic-based schools seem to be challenged to respond to the digitization of information for the development of learning.

The development of information and communication technology (ICT) has brought various innovations to the world of education.

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One technology that is now widely used is Google System (GS), which includes various applications such as Google Classroom, Google Drive, Google Meet, and others. GS offers a flexible, collaborative, and efficient learning platform, so that it can help educators and students in managing learning better. However, the implementation of technology such as GS in schools, especially in superior Islamic junior high schools, still faces several challenges. Based on initial observations, it was found that: 1) Suboptimal learning management, namely that many schools have not utilized technology optimally in the planning, implementation, and evaluation of learning, 2) Limited teacher capabilities where most teachers have limitations in integrating digital technology into their learning strategies, 3) Lack of systematic guidance where there is no structured model or guide to implementing GS in learning management in superior Islamic school environments, and 4) The gap between technology and education culture, namely that several schools are still struggling to align Islamic values with the use of modern technology in learning.

The digital era has brought significant changes in various aspects of life, including the world of education. Information and communication technology (ICT) is now a key element in supporting effective and efficient learning processes. At the junior high school level, especially in leading Islamic educational institutions, the application of digital-based technology is essential to support learning that is relevant to the needs of the times.

SMP Ar-Rafi Drajat, as one of the leading Islamic schools in Bandung City, has a vision to produce a generation that excels in academic achievement and Islamic values. However, the challenge in managing learning integrated with technology is still one of the issues that need to be overcome. Teachers and students often face obstacles in terms of coordination, access to learning materials, and structured evaluation. This shows the need for a learning management system that can increase the effectiveness of learning without abandoning Islamic values as the basis of education.

Google System (GS) is a digital-based platform that offers integrated solutions for learning management. With features such as Google Classroom, Google Drive, and Google Forms, this system can support various aspects of learning, from planning, implementation, to evaluation. However, the implementation of this technology requires a planned strategy to suit the needs of students and teachers in Islamic educational environments.

This study is important because of the need to develop a GS-based learning management model that can be applied at SMP Ar-Rafi Drajat. This study will focus on how technology can be integrated with effective learning methods according to the characteristics of Islamic educational institutions. The resulting model is expected to be able to answer the challenges of modern learning while maintaining the essence of Islamic values in the educational process.

At SMP Ar-Rafi Drajat Bandung City, as one of the leading Islamic junior high schools, there is an urgent need to develop a learning management model that not only utilizes GS technology but is also in line with the school's vision in forming students with Islamic character and academic achievement. The use of GS is expected to help overcome problems in the efficiency of learning management, improve interaction between teachers and students, and provide a more interesting and meaningful learning experience.

This research is based on the urgency to develop GS-based learning management that can be implemented systematically and in accordance with the characteristics of superior Islamic junior high schools. This model is expected to be able to answer the challenges of learning in the digital era while strengthening Islamic values in education.

Thus, this study aims to design and develop a GS-based learning management model at SMP Ar-Rafi Drajat, Bandung City, which is expected to be an innovative solution for improving the quality of learning in leading Islamic schools.

The development of GS-Based Learning Management in schools is a potential as well as an alternative to meet the challenges in the digital era. This is quite reasonable because Google is part of a system and is the largest internet search engine in the world. Most aspects of knowledge, both natural and social knowledge, including literacy related to Islamic religious learning are available on this largest digital search engine. Digital-based learning is an appropriate alternative in today's modern era. According to (Kathleen Scalise, 2016) explains that learning through digital networks and the use of digital media, in the context of schools, has been based on the conceptualization of the use of information and communication. Information technology is seen as a resource for creating, collecting, storing, and using knowledge as well as for communication and collaboration. Thus, GS-Based Learning Management is an alternative to collaborative learning in the digital era.

The Development of GS-Based Learning Management did not come out of the blue. It started from the author's reflection on the importance of learning media to meet the needs of students in the current digital technology era. The use of GS as a learning medium provides an effective way in the learning process in schools. The author met and discussed with an education expert who had successfully carried out the Development of GS-Based Learning Management at SMP Ar Rafi Drajat Bandung which he had pioneered. The Development of GS-Based Learning Management implemented at Ar Rafi Darajat Bandung School is only a tool so that Islamic values in each subject are conveyed well to students. Learning becomes effective and efficient. Students learn according to their current world, namely the digital world. GS is the right tool so that students and learning in schools in general become very easy and enjoyable.

GS with its complete features is really utilized in this school so that the learning process runs very well. As in reality, Google has many features to facilitate the use of gadgets in daily activities. Google is needed by all groups. School children need websites to find more information about lessons. Google helps provide information for people who want to work. Thus, the development of learning management in schools becomes important when there is innovative collaboration with Google in producing the next generation. The principal must know how to maximize learning with the concept of digitization of information, one of which is maximizing the potential of GS.

I made Andi Arsana and Atriyon Julzarika (Lahiya, 2025) explain that Google is a popular and very complete search engine. With Google, according to Atriyon (Arifudin, 2025), the masses can search for websites, news, images, documents, blogs, stock prices, weather information, books, papers, educational information, and various other information. Google also provides access in various languages. Atriyon (Kartika, 2020) explained that there are 36 features that can be used for anyone, including for learning purposes.

SMP Ar Rafi Drajat Bandung is one of Google's recommended schools that uses Information and Communication Technology (ICT) in the GS-based learning process. PAI teachers at SMP Islam Ar Rafi have maximized the use of ICT by using chromebooks, LCD projectors, videos, and the internet such as Google applications (classroom, slides, docs), game applications (bookwidget, kahoot, quizizz), hadith encyclopedias and interpretations with the aim of facilitating teachers in the learning process so that learning for students is more enjoyable and improving the quality of education for schools.

SMP Ar Rafi has used the Learning Management System (LMS) as a whole, such as

from learning, teacher planning, to evaluation, all are GS-based. Then, school management is also GS-based to monitor the entire school, both from children's learning outcomes, teacher human resources, training, attendance, employee performance assessments. All data at SMP Ar Rafi is digital, including the curriculum such as making Learning Implementation Plans (RPP), teaching modules, and books using digital GS.

In addition, the standards of Teachers and Education Personnel (GTK), Public Facilities and Infrastructure, and the financial system have also used GS. Based on the explanation above, SMP Ar Rafi' is a school based on GS. The actualization of GS for SMP Ar Rafi' is not only an institutional recognition, but SMP Ar Rafi' has received an official certificate from Google as a school that is a Google recommendation (Google Reference School).

Research at Ar Rafi' Drajat Islamic Junior High School in Bandung on the Development of GS-Based Learning Management has the potential for the good and improvement of the learning system in Indonesia today. Thus, for the purpose of developing knowledge in GS-Based Learning Management at Ar Rafi' Drajat Islamic School in Bandung City, it is important to be studied.

## Method

According to Rahardjo quoted (Noviana, 2020) that the research method is one way to obtain and seek tentative truth, not absolute truth. The result is scientific truth. Scientific truth is a truth that is open to being tested, criticized, and even revised. Therefore, there is no best method for seeking truth, but what exists is the right method for a particular purpose according to the existing phenomenon. Budiharto quoted (Rismawati, 2024) that the selection of research methods must be adjusted to the research being conducted so that the results are optimal.

The type of research used in this study is a case study method. According to Skate (Judijanto, 2025), case study research aims to reveal the unique characteristics contained in the case being studied. The case itself is the cause of the case study research. Therefore, the main purpose and focus of case study research is on the case that is the object of research. Robert K. Yin (Nuryana, 2024) explains that case study is an empirical investigation that investigates contemporary phenomena in a real-life context. According to Yin, case study research is a more suitable strategy if the main question of a study concerns how or why. The focus of case study research is contemporary phenomena.

The approach used in this study is a qualitative approach. According to Bogdan and Taylor in (Arifudin, 2024) a qualitative approach is a research procedure that produces descriptive data in the form of written or spoken words from people and observable behavior. According to (As-Shidqi, 2025) the method is by transcribing data, then coding the notes in the field and interpreting the data to obtain conclusions.

This study uses qualitative research with field research methods. According to (Farid, 2025) this approach is adjusted to the main objective of the study, namely to describe and analyze the development of learning management based on the Google System (GS) at SMP Islam Unggulan. So that with this method it will be able to explain the problems of the study (Arifudin, 2022).

Bungin quoted (As-Shidqi, 2024) explained that qualitative descriptive research aims to describe the situation, condition, or social phenomenon that exists in society and then used as an object of research and tries to draw reality to the surface as a model or description of a particular condition or situation. This study aims to provide an overview of the development of learning management based on the Google System (GS) at SMP Islam Unggulan.

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Determining the right data collection technique greatly determines the scientific truth of a study. The data collection techniques used in this study are Observation, Interview and Documentation.

Technique can be seen as a means of doing technical work carefully using the mind to achieve goals. Although the study is an effort within the scope of science, it is carried out to collect data realistically and systematically to realize the truth. Research methodology is a means of finding a cure for any problem. In this case, the author collects information about the analysis of the development of learning management based on the Google System (GS) at SMP Islam Unggulan, articles, journals, theses, theses, ebooks, and others (Afifah, 2024).

Because it requires library materials for its data sources, this study utilizes library research. Researchers need books, scientific articles, and other literature related to the topics and problems they are exploring, both printed and online (Supriani, 2024).

Finding information from data sources requires the use of data collection techniques. Amir Hamzah in (Kurniawan, 2025) claims that data collection is an effort to collect information related to the subject matter being studied. The author uses a library research method to collect data. Specifically, the author starts with the library to collect information from books, dictionaries, journals, encyclopedias, papers, periodicals, and other sources that share views on the development of Google System (GS)-based learning management at SMP Islam Unggulan.

Furthermore, Amir Hamzah said that data collection means various efforts to collect facts related to the topic of discussion that is being or will be explored (Aidah, 2024). These details can be found in scientific literature, research, and scientific writings, dissertations, theses, and other written sources. According to (Zulfa, 2025) data collection can be done in various circumstances, using different sources, and using different techniques.

Observation is part of the direct research process on the phenomena to be studied (Romdoniyah, 2024). With this method, researchers can see and directly feel the atmosphere and conditions of the research subjects (Rohimah, 2024). The things observed in this study are about the analysis of the development of learning management based on the Google System (GS) at SMP Islam Unggulan

The interview technique in this study is a structured interview, namely an interview conducted using various established standard guidelines, questions are arranged according to information needs and each question is needed to reveal each empirical data (Nuary, 2024).

Documentation is one of the data collection techniques through existing documents or written records (Ramli, 2024). Documentation comes from the word document, which means written goods. In implementing the documentation method, researchers investigate written objects, such as books, magazines, meeting minutes, and diaries. According to Moleong in (Djafri, 2024) that the documentation method is a way of collecting information or data through examining archives and documents. Furthermore, according to (Sappaile, 2024) that the documentation strategy is also a data collection technique submitted to the research subject. The data collection method using this documentation method is carried out to obtain data on the condition of the institution (research object), namely the analysis of the development of learning management based on the Google System (GS) at SMP Islam Unggulan.

Moleong quoted (Arifin, 2024) explained that the collected data was analyzed using an interactive analysis model consisting of data reduction, data presentation, and drawing conclusions. Meanwhile, Syarifah et al in (Rifky, 2024) explained that data reduction was carried out by filtering relevant information, data

presentation was carried out in the form of a systematic narrative, and conclusions were drawn based on research findings. To ensure the validity of the data, this study used source triangulation, namely comparing information from sources. According to Moleong in (Sanulita, 2024), source triangulation helps increase the validity of research results by comparing various perspectives on the phenomenon being studied.

Muhadjir dalam (Hoerudin, 2023) states that data analysis is the activity of conducting, searching and organizing records of findings systematically through observations and interviews so that the researcher focuses on the research being studied. After that, make a discovery material for others, edit, classify, and present it. Data validity techniques using triangulation techniques cover techniques and sources. Data analysis using the Miles and Huberman model in (Ningsih, 2024) consists of data collection, data reduction, data presentation, and drawing conclusions.

## Results and Discussion

### Planning of GS-based learning programs at Ar Rafi' Drajat Middle School, Bandung City

The management of GS-based learning program planning at SMP Ar Rafi" Drajat, Bandung City, West Java, utilizes a structured management framework to integrate digital technology into teaching and learning activities. In this case, George R. Terry's management theory of planning, which includes identifying goals, selecting actions, and allocating resources, is very relevant in ensuring that GS-based learning programs can run effectively (Terry, 2010).

According to (Terry, 2010), planning is a process that sets goals, designs steps to achieve them, and allocates resources effectively. At SMP Ar Rafi'' Drajat, the management of GS-based learning program planning begins with the identification of clear educational goals, such as improving digital interaction, collaborative skills,

and understanding scientific concepts through technology. Thus, the school sets the main goal, which is to prepare students to learn actively and collaboratively using Google Workspace tools such as Google Classroom, Google Docs, Google Sheets, and Google Forms. In addition, this goal is aligned with the school's vision to support technology skills that are relevant to the needs of the digital era.

The next step in Terry's theory is the selection of steps or actions to be taken to achieve the goal. Here, SMP Ar Rafi' Drajat developed an action plan that included intensive training for teachers in utilizing Google Workspace, development of digital-based teaching materials, and setting evaluation policies that support project-based learning programs. Teachers were given training to be able to design interactive learning activities, such as collaborative assignments in Google Docs or Google Forms-based evaluations, which are in accordance with digital learning methods.

Terry also emphasized the importance of resource allocation to ensure that the plan can be realized properly. In this context, SMP Ar Rafi' Drajat allocates resources that include stable internet network infrastructure, computer devices, and access for students and teachers to GS devices. This allocation is made to support the smooth implementation of the program, minimize technical obstacles, and ensure that all students can fully participate in this technology-based learning. In addition, expert resources in the IT field are also prepared to assist the teaching and learning process, especially in terms of device management and technical support for teachers and students.

Overall, planning management based on George R. Terry's theory at SMP Ar Rafi' Drajat focuses on the formation of clear educational goals, the selection of strategic action steps, and the allocation of supporting resources, so that GS-based learning programs can run optimally and in accordance with the targets set by the school. With

this careful planning, it is expected that the application of GS technology in learning will increase the effectiveness of student learning and develop relevant skills in the digital era.

**Implementation of GS-based learning at Ar Rafi' Drajat Middle School, Bandung City**

The implementation of GS-based Islamic Religious Education (PAI) learning management at SMP Ar Rafi' Drajat, Bandung City aims to improve the quality and effectiveness of learning by integrating technology into the educational process. This learning utilizes various tools from Google Workspace for Education such as Google Classroom, Google Meet, Google Docs, and Google Forms, which enable more flexible, efficient, and collaboration-based learning. The implementation of this technology provides a fun, more interactive learning experience that suits the needs of students in the digital era. To ensure smooth implementation, the implementation of GS-based learning management also refers to George R. Terry's management implementation theory, which includes four important steps, namely planning, organizing, implementing, and supervising.

The implementation of GS-based Islamic Religious Education Learning at SMP Ar Rafi' Drajat began with the preparation of technological infrastructure and training for teachers to be able to use various Google applications effectively. Google Classroom is used as the main platform for uploading teaching materials, giving assignments, and conducting assessments. In face-to-face sessions, Google Meet is used for online meetings, while Google Docs allows students to work together in groups to complete project-based assignments, such as creating presentations on Islamic religious topics. Evaluations are carried out using Google Forms, which make it easy to collect data and provide feedback quickly.

The implementation of this learning supports the goal of creating more active and collaborative learning, as well as providing new experiences for students in utilizing technology to deepen Islamic religious values. All of these activities are carried out by paying attention to student needs and learning characteristics that are in accordance with the development of the times.

In Relation to the Theory of Management Implementation George R. Terry in his theory of implementation management identifies four main stages in the managerial process, namely planning, organizing, implementing, and monitoring. Each of these stages plays an important role in ensuring that the implementation of GS-based learning can run successfully and efficiently.

a. Planning Stage

In the planning stage, the education management team at SMP Ar Rafi' Drajat designed how technology would be used in Islamic Religious Education learning. The learning plan includes selecting the right platform such as Google Classroom for learning strategies and evaluation methods that will be carried out using Google Forms. Planning also involves teacher training to maximize the use of this technology in delivering Islamic Religious Education materials. The purpose of this planning is to ensure that each component of technology-based learning can be implemented properly and achieve the learning objectives set.

b. Organizing

Organizing here involves establishing a clear structure of tasks and responsibilities between the parties involved in GS-based learning. PAI teachers are responsible for creating and managing teaching materials in Google Classroom, providing assignments and feedback through the platform, and facilitating discussions or learning sessions with Google Meet. IT staff play a role in ensuring the availability of hardware and software needed to support learning, as well as providing technical support for teachers and students. In addition, dividing tasks into groups

and forming an effective study schedule are also part of organizing

c. Actuating

Implementation is the implementation stage of the plan that has been prepared. At SMP Ar Rafi' Drajat, learning is carried out using Google Classroom to deliver materials, give assignments, and provide direct assessments. Teachers use Google Meet for face-to-face meetings, provide explanations of teaching materials, and answer student questions. During learning, students can work on assignments collaboratively using Google Docs, which allows them to work together in groups. All of these activities are designed to facilitate more flexible and participatory learning. Students are also given the opportunity to discuss and ask questions directly through Google Meet, which brings them closer to their teachers in a more interactive way.

d. Supervision (Controlling)

The supervision stage involves evaluation and monitoring to ensure that the implementation of learning is in accordance with the objectives that have been set. Supervision is carried out by monitoring student activities in Google Classroom, such as whether they have uploaded assignments on time, attended online meetings, and participated in discussions. Evaluation is carried out through Google Forms, where students work on quizzes or surveys that provide an overview of their understanding of the material that has been taught. Teachers also provide real-time feedback, both for individual and group assignments, to help students improve their understanding. This supervision is important to detect obstacles that students may face, both related to understanding the material and technical problems, and to ensure that learning objectives can be achieved. The implementation of GS-based PAI learning management at SMP Ar Rafi' Drajat, Bandung City refers to George R. Terry's management implementation theory which consists of four main stages, namely planning, organizing, implementing, and

supervising. Through the use of technology integrated into Google Workspace for Education, SMP Ar Rafi' Drajat has succeeded in organizing effective, flexible, and collaborative learning. With careful planning, clear organization, efficient implementation, and continuous supervision, this GS-based PAI learning can run successfully and provide maximum results for students at SMP Ar Rafi' Drajat Bandung.

**GS-Based Learning Supervision at Ar Rafi' Drajat Middle School, Bandung City.**

Supervision of Islamic Religious Education (PAI) learning based on GS at SMP Ar Rafi' Drajat, Bandung City, is an approach that utilizes digital technology to ensure effectiveness, achievement of goals, and improvement of the quality of the PAI learning process. In this supervision, GS is used as a platform to monitor learning activities, from delivering materials to student evaluations, and to facilitate communication between teachers, students, and the school.

This approach can be analyzed using the supervision theory proposed by (Terry, 2010). In his theory, Terry explains that supervision is one of the management functions that plays an important role in achieving predetermined goals by ensuring that actual performance is in accordance with the plan. According to Terry, supervision consists of several important stages, namely determining standards, measuring performance, comparing actual performance with standards, and taking corrective action if necessary.

The application of Terry's supervision theory in the context of GS-based PAI learning at SMP Ar Rafi' Drajat involves formulating the objectives and quality standards of PAI learning to be achieved through GS, such as the achievement of basic competencies, student participation, and the effectiveness of utilizing GS features such as Google Classroom or Google Forms in PAI learning. Then, the Principal and the

supervisory team monitor the implementation of GS-based PAI learning by measuring teacher performance in using this platform. This measurement can be done by looking at usage reports, evaluations of student assignment or test results in GS, and student activity in learning activities. Student and teacher performance is evaluated periodically to ensure that learning activities are in accordance with what was planned.

Then compare actual performance with standards. This stage is the process of comparing the results obtained with the standards that have been set. If there is a difference or deviation between actual performance and the expected learning standards, then identification of the causal factors is carried out, such as technical constraints, lack of teacher understanding of technology, or low student participation. Then take corrective action.

Based on the comparison results, if there is a deviation from the standard, then corrective action is taken to improve the learning process. For example, the principal can provide additional training for teachers related to the use of GS or create policies that better support student participation. This corrective action aims to ensure that the PAI learning process continues to run according to the goals that have been set. Supervision based on George R. Terry's theory helps ensure that the use of GS in PAI learning at SMP Ar Rafi 'Drajat runs effectively and in accordance with standards, and supports the achievement of the desired educational goals. This also allows for ongoing evaluation of the effectiveness of technology-based learning methods.

## Conclusion

This study develops an Islamic Religious Education (PAI) Learning Management Model Based on Google System (GS) at SMP Unggulan Ar Rafi' Drajat, Bandung City, with an Integrative-Interconnective Islamic approach as

developed in Amin Abdullah's theory. This model emphasizes the integration of modern technology with Islamic values to form an effective, efficient, and morally oriented learning system. The Relevance of the Model in Islamic Education in the Digital Era where the GS-Based PAI Learning Management Model proves that the integration of technology and Islamic values can create a modern, relevant, and spiritually based education system. This is in line with the concept of Islamic Knowledge Integration, where knowledge and religion are not separated but united in a holistic educational framework.

## References

Afifah, H. (2024). Implementasi Technology Acceptance Model (TAM) Pada Penerimaan Aplikasi Sistem Manajemen Pendidikan Di Lingkungan Madrasah. *Jurnal Tahsinia*, *5*(9), 1353–1367.

Aidah, A. (2024). Pengembangan Sistem Informasi Manajemen Dalam Dunia Pendidikan. *Jurnal Tahsinia*, *5*(6), 966–977.

Amma et al. (2021). Problematika Pembelajaran pendidikan Agama Islam Pada Peserta Didik. *Edification Journal*.

Arifin, A. (2024). The Relationship Between Classroom Environment, Teacher Professional Development, and Student Academic Performance in Secondary Education. *International Education Trend Issues*, *2*(2), 151–159.

Arifudin, O. (2022). Analysis Of Learning Management In Early Childhood Education. *Technology Management*, *1*(1), 16–26.

Arifudin, O. (2024). Trends in Teaching Research with Technology in Indonesia. *Journal of Multidisciplinary Global*, *1*(2), 107–116.

Arifudin, O. (2025). Application Of Steam Learning Methods To Increase Student Creativity And Innovation. *International*

*Journal of Teaching and Learning (INJOTEL)*, *3*(1), 97–108.

As-Shidqi, M. H. (2024). Integrasi Pendidikan Manajemen Dengan Prinsip-Prinsip Tasawuf. *Al-Mawardi: Jurnal Manajemen Pendidikan Islam*, *1*(1), 83–95.

As-Shidqi, M. H. (2025). Menggali Potensi Transformasi Islam Dan Perencanaan Pendidikan. *JUMADIL: Jurnal Manajemen Pendidikan Islam*, *1*(1), 1–15.

Djafri, N. (2024). Development Of Teacher Professionalism In General Education: Current Trends And Future Directions. *International Journal of Teaching and Learning*, *2*(3), 745–758.

Farid, M. (2025). Mekanisme Pengambilan Keputusan Berbasis Sistem Informasi Manajemen Dalam Lembaga Pendidikan Islam. *Jurnal Tahsinia*, *6*(1), 86–103.

Hoerudin, C. W. (2023). E-Learning as A Learning Media Innovation Islamic Education. *QALAMUNA: Jurnal Pendidikan, Sosial, dan Agama*, *15*(1), 579–594.

Ifham Choli. (2020). Pendidikan Agama Islam Dan Industri 4.0. Tahdzib Al-Akhlak-PAI-FAI-UIA Jakarta.

Judijanto, L. (2025). Ethics And Security In Artificial Intelligence And Machine Learning: Current Perspectives In Computing. *International Journal of Society Reviews (INJOSER)*, *3*(2), 374–380.

Kartika, I. (2020). Implementasi Manajemen Berbasis Sekolah Dalam Meningkatkan Mutu Pendidikan Di Sekolah Menengah Atas. *Jurnal Al-Amar*, *1*(2), 137–150.

Kartika, I. (2021). Upaya Mewujudkan Karakter Peserta Didik Pada Pembudayaan Kehidupan Beragama (Religious Culture) Di Sekolah. *Jurnal Al-Amar*, *2*(2), 221–232.

Kartika, I. (2022). Manajemen Kurikulum Sebagai Upaya Meningkatkan Mutu Pembelajaran Pada Sekolah Menengah Atas. *Jurnal Al-Amar*, *3*(1), 81–94.

Kathleen Scalise. (2016). Assessment of Learning in Digital Interactive Social Networks: A Learning Analytics Approach, Mark Wilson, Perman Gochyyev University of California, *Berkeley, Online Learning*. 20 (2).

Kurniawan, M. A. (2025). Lokakarya Pengembangan Pembelajaran Dan Asesmen Bagi Guru Sekolah Dasar. *Jurnal Bakti Tahsinia*, *3*(1), 109–120.

Kusmawan, A. (2025). The Relationship Between Teacher Involvement in Curriculum Development and Student Learning Outcomes. *International Journal of Educatio Elementaria and Psychologia*, *2*(1), 1–12.

Lahiya, A. (2025). Education Administration Reform: A Case Study On The Implementation Of The Merdeka Curriculum. *INJOSEDU: International Journal of Social and Education*, *2*(2), 29–37.

Ningsih, I. W. (2024). Manajemen Pembelajaran Pendidikan Agama Islam Dalam Meningkatkan Prestasi Belajar Peserta Didik Di Sekolah Dasar. *Jurnal Tahsinia*, *5*(1), 23–37.

Noviana, A. (2020). Effect of accountability, transparency of management amil zakat institutions and poverty alleviation of Muzakki trust. *Journal of Advanced Research in Dynamical and Control Systems*, *12*(6), 199–208. https://doi.org/10.5373/JARDCS/V12I6/S20201022

Nuary, M. G. (2024). Teacher Strategies In Instilling Nationalist Values In The Millennial Generation In The Technological Era. *International Journal of Teaching and Learning*, *2*(4), 954–966.

Nuryana, M. L. (2024). Implementasi Dan Transformasi Sistem Informasi Manajemen Di Era Digital. *Jurnal Tahsinia*, *5*(9), 1325–1337.

Ramli, A. (2024). Analysis of the Influence of Organizational Commitment on Work Discipline of Public High School Teachers. *Journal on Education*, *6*(2), 12927–12934.

Rifky, S. (2024). Professionalism Of Educators In Learning Development. *International Journal of Teaching and Learning*, *2*(2), 579–588.

Rismawati, R. (2024). Peran Sistem Informasi Dalam Meningkatkan Mutu Layanan Pendidikan. *Jurnal Tahsinia*, *5*(7), 1099–1122.

Rohimah, R. B. (2024). Madrasah's Contribution To The Empowerment Of The Village Community In Indonesia. *International Journal of Teaching and Learning*, *2*(4), 1088–1101.

Romdoniyah, F. F. (2024). Implementasi Kebijakan Education Mangement Information System (EMIS) Di Seksi PD. Pontren Pada Kemenag Kota Bandung. *Jurnal Tahsinia*, *5*(6), 953–965.

Sappaile, B. I. (2024). The Role of Artificial Intelligence in the Development of Digital Era Educational Progress. *Journal of Artificial Intelligence and Development*, *3*(1), 1–8.

Sanulita, H. (2024). Analysis Of The Effectiveness Of Audio Visual Learning Media Based On Macromedia Flash Usage On School Program Of Increasing Student Learning Motivation. *Journal on Education*, *6*(2), 12641–12650.

Suherman. (2020*). Industri 4.0 VS Society 5.0*. Purwokerto: Pena Persada.

Supriani, Y. (2024). Fasilitasi Kebutuhan Belajar Dan Berbagi Praktik Baik Pengawas Sekolah Ke Kepala Sekolah. *Jurnal Bakti Tahsinia*, *2*(1), 75–85.

Terry, G. (2010). *Dasar-dasar Manajemen*. Jakarta: Bumi Aksara.

Zulfa, A. A. (2025). Peran Sistem Informasi Akademik Berbasis Web Dalam Upaya Meningkatkan Efektivitas Dan Efisiensi Pengelolaan Akademik Di Perguruan Tinggi. *Jurnal Tahsinia*, *6*(1), 115–134.