DIGITAL LITERACY IN PROBLEM-BASED LEARNING FOR ISLAMIC RELIGIOUS EDUCATION

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Abstract

Learning in the current self-paced curriculum emphasizes a student-centered approach, requiring innovation in instructional strategies. At SMA Negeri 1 Jember, East Java, a model integrating Problem-Based Learning (PBL) with digital literacy was implemented in the 2024/2025 academic year for Islamic Religious Education and Ethics. This study critically evaluates the planning, implementation, and assessment of the model, and analyzes its impact on student engagement, critical thinking, and learning outcomes. The research involved 10 Islamic Education teachers and 120 students from grades X and XI, selected through purposive sampling. Employing a qualitative field research approach, data were collected through semi-structured interviews, classroom observations, and documentation analysis. Data analysis followed the Miles, Huberman, and Saldana model, comprising data condensation, data display, and conclusion drawing. Triangulation of sources and methods was applied to ensure validity and reliability. The findings show that the planning phase involved developing digital teaching modules and interactive presentations. Implementation followed a structured sequence of preliminary, core, and closing activities, while assessment utilized observational, formative, summative, and remedial tools. The study affirms that integrating digital literacy into a PBL framework enhances student participation, promotes higher-order thinking, and supports autonomous moral reasoning—key goals in Islamic Religious Education. Rooted in constructivist theory, this model demonstrates practical value for educators aiming to modernize religious instruction while maintaining its ethical and spiritual integrity, particularly within 21st-century digital learning contexts.
Keywords: *Digital Literacy; Problem-Based Learning; Islamic Religious Education*

A. Introduction

Education today continues to evolve in response to the demands of advancing human civilization. Without adapting to the dynamics of the times, education risks becoming obsolete and producing graduates who are unprepared to face contemporary challenges (Tintingon et al., 2023). Education is not merely about mastering academic content; it also serves as a life-guiding process, shaping individuals to live responsibly in society, the nation, and the global community. In the 21st century, which is marked by rapid digital transformation, technology plays an integral role in almost every aspect of life, including education—not only in Indonesia, but globally as well (Nukman, 2024; Mustari & Darmayanti, 2024).

Although various forms of literacy such as school literacy, scientific literacy, media literacy, and computer literacy are relevant, this study narrows its focus to digital literacy

due to its central role in preparing students to critically engage with digital content and learning platforms. In the context of Islamic Religious Education and Ethics (PAI dan Budi Pekerti), digital literacy is particularly important for helping students navigate moral, spiritual, and social dilemmas in the digital age. Moreover, the integration of digital literacy into the Problem-Based Learning (PBL) model is seen as a promising pedagogical strategy to foster critical thinking, collaboration, and contextual understanding.

However, previous studies have largely focused on general applications of digital literacy in secular subjects such as science, language, or vocational training (e.g., Wulandari & Lestari, 2022; Setiawan et al., 2023), and tend to overlook its integration in religious or values-based education. Some research has examined digital media use in Islamic education (e.g., Rahmawati, 2022), but these often remain descriptive and lack focus on structured learning models such as PBL. In addition, the implementation of digital literacy in PAI learning at public schools is often limited by the assumption that moral and religious education should rely on conventional, teacher-centered approaches.

Therefore, this study addresses a significant gap by exploring how digital literacy can be systematically integrated into a PBL framework to enhance learning in Islamic Religious Education and Ethics. It also investigates whether the implementation of such a model at SMA Negeri 1 Jember—within the public school context—can improve student engagement, critical thinking, and moral reasoning. This research not only contributes to the discourse on digital pedagogy but also provides an empirical reference for educators aiming to modernize religious instruction while maintaining its ethical core.

In this modern era, educating and preparing the best generation for the nation is a challenge for all levels of society. The government continuously strives to develop Indonesian education by focusing on equity, relevance, quality improvement, and efficiency. The quality of education in Indonesia has evolved through various curricula, each tailored to the demands of its time (Khaidir et al., 2023; Khumaini et al., 2023). With the rapid advancement of technology, access to information has become easier, prompting a shift towards student-centered learning models that encourage active participation and critical thinking.

Despite the growing attention to digital literacy as a critical competence, studies on the integration of digital literacy within the Problem-Based Learning (PBL) model—especially in the context of Islamic Religious Education (PAI)—remain limited. Previous research has primarily focused on digital literacy in general education subjects or on technology use in Islamic learning that is mostly descriptive and lacks an evaluative framework (e.g., Sari & Nugroho, 2022; Rahman, 2023). Furthermore, there is a scarcity of studies examining how digital literacy-based PBL can be systematically planned, implemented, and assessed to enhance not only cognitive skills but also moral and ethical reasoning in PAI subjects. This gap highlights the need for empirical studies that explore the effective integration of digital literacy with PBL in religious education, particularly within public schools where resources and pedagogical practices vary significantly.

Therefore, this study aims to fill this gap by providing a detailed analysis of the planning, implementation, and evaluation of digital literacy-supported PBL in Islamic

Religious Education and Ethics at SMA Negeri 1 Jember, contributing both to theory and practical applications in contemporary religious learning. Currently, education in Indonesia implements the Independent Learning curriculum, where students are no longer passive objects but active subjects who become the center of the learning process. Permendikbud No. 22 of 2016 provides comprehensive guidelines on the standards of the learning process that must be implemented in elementary and secondary schools across Indonesia. Efforts to foster students' social and scientific curiosity can be broadly classified into three approaches: (1) discovery or inquiry learning models, (2) problem-based learning models, and (3) project-based learning models (Dahri & Mallisza, 2024; Permadani et al., 2025). Among these, Problem-Based Learning (PBL) is especially promising as it directs students to actively solve real-world problems that stimulate critical thinking. This approach requires students to take an active role in learning activities, encouraging mental engagement and deep conceptual understanding that supports lifelong learning (Rahman et al., 2023; Anggraeni et al., 2025).

While various literacies such as school literacy, scientific literacy, media literacy, and computer literacy are important, this study specifically focuses on digital literacy due to its increasing relevance in contemporary education and its capacity to enhance student interaction with technology-based learning resources. In the context of Islamic Religious Education and Character Education, digital literacy is prioritized because it equips students with essential skills to critically access, evaluate, and utilize digital content aligned with moral and ethical values. This study therefore limits its scope to analyzing digital literacy and its direct integration within the PBL model to optimize learning outcomes in these subjects.

Problem-based learning is a learning model that exposes students to a variety of complex real-life problems to provide context for students to learn through problem-solving and problem identification. In general, students work together in groups through the guidance of teachers. In this case, students learn in groups through complex real-life problems by making students more active and students are facilitated with the role of the teacher only limited to facilitators (Putri et al., 2024). The application of the problem-based problem-based learning (PBL) model learning method is one of the efforts implemented in order to explore the hidden abilities in individual students in critical and creative thinking, the material prioritizes problem-solving in real life as real life as a source of student learning which is then associated with learning concepts. In the application of the model, it requires the active role of students in the learning process so that they can become positive contributors to learning and make learning more meaningful so that they can indirectly develop the abilities of the affective domain, cognitive domain, and psychomotor domain (Engkizar, Sarianti, et al., 2022; Saputra et al., 2024). The application of the Problem Based Learning (PBL) model will explore the ability to think critically and because this model uses real-world problems as a foundation for students to learn critical thinking and solve problems and relate them to the concepts learned. The use of this learning model makes the role of students more meaningful, and becomes an inspiring contributor to the learning process.

This learning model will be appropriate if applied in learning to create more meaningful learning, because it requires students to learn using cognitive, affective, and psychomotor skills (Desmaniarti & Aryanti, 2023). The application of this problem-based learning model will be realized if students read frequently. Reading or currently referred to as literacy, but the definition of literacy is very broad, not only means reading but also includes various components.

Literacy is a person's ability to understand information that has been managed through the process of reading or writing. Over time, literacy has transformed into a more general understanding so that it has become attached to culture and various political issues so that literacy has become a new paradigm that can be interpreted as the level of a person's ability to understand, involve, apply, analyze and transform reading texts through reading or writing activities, thus producing literacy variations that include school literacy, science literacy, Media literacy, digital literacy, computer literacy and so on (Ummah, 2022; Nurhasanah et al., 2025). In the era of technology that we feel today, the ease of accessing information is undeniable. In the past, reading only using books was certainly very different from the current situation. Electronic devices have been widely traded at very affordable prices, so that almost all levels of society can reach them. And for the use of electronic media today it is very easy, because the range of access to print media and internet access everywhere - almost all corners of the country to all corners of the world can get various information about the use of electronic media as a tool and means to make life easier (Rita, 2023; Budget al., 2023; Marti & Laugu, 2024).

In relation to the world of education, all education implementers are expected to have the ability to master existing technology. In the field of education, this also changes the role of educators from achieving subject matter to learning facilitators for students. Learning no longer refers to teacher-centred but has shifted to student-centred. In the learning designed by this educator, it is hoped that students will be able to master digital literacy so that they are more able to compete with the demands of the increasingly rapid times in the field of digital technology today (Amelia, 2023; Mustari & Darmayanti, 2024). Digital literacy is an awareness of the attitude and ability of individuals to use digital tools and facilities appropriately to identify, access, manage, integrate, evaluate, and analyze digital resources so that they can build new knowledge. This digital literacy is very helpful in various aspects, making it easier to know various kinds of science, and other important information. This digital literacy is a link between each other. Digital literacy is used in almost every subject. Not only in general subjects, digital literacy is also needed in religious subjects, especially in Islamic religious education subjects (Bahri, 2019; Khumaini et al., 2023; Ardiansyah & Basuki, 2023).

Islamic religious education is an education that is taught to students and is included in the national education curriculum which refers to the teachings and guidance of Islam as a form of effort to be able to form, foster and guide a Muslim who is pious to Allah SWT, love for both parents, fellow creatures and the country as a form of grace that has been given. Islamic religious education is education that is carried out consciously as an effort to prepare students to believe, understand, live and practice the various values contained in the

teachings of Islam through teaching and guidance activities as well as exercises and based on the recommendations of Islam (Hidayah, 2019; Mu'is, 2021; Fauzi, 2023).

Based on this description, it can be known that Islamic religious education is an effort that is carried out consciously so that it can provide guidance, nurturing, learning, nurturing and habituation for students to be able to understand the various meanings contained in the Qur'an and Al Hadith as a source of laws and guidelines in navigating life in the future in society The rapid development of technology has greatly facilitated easy access to information, prompting a shift from teacher-centered to student-centered learning approaches. Digital literacy has become an essential skill for students to critically engage with learning materials and real-world problems. While Problem-Based Learning (PBL) models have been widely adopted to promote active and critical thinking, studies specifically exploring the integration of digital literacy within PBL in Islamic Religious Education remain limited. Previous research on digital literacy in Islamic education often focuses on general digital skills or the use of media for religious content delivery (e.g., Sari & Nugroho, 2022; Rahman, 2023), without systematically examining how digital literacy enhances problem-solving processes in a PBL context. Moreover, few studies have evaluated the practical implementation and assessment of such models, especially in public senior high schools, leaving a gap in understanding how digital tools can be optimally leveraged to foster both cognitive and moral development. This study addresses these gaps by providing a comprehensive evaluation of the planning, implementation, and assessment of a digital literacy-supported PBL model in Islamic Religious Education and Ethics, aiming to enrich theoretical insights and offer practical solutions for contemporary religious education.

B. Method

This study uses a qualitative approach with the type of case study, because the researcher designs a careful investigation strategy related to various things in the research collection through direct interaction with individuals, groups, situations and conditions around the research (Moeloeng, 2018; Engkizar et al., 2021; Sugiyono, 2020). This research is located at the State High School (SMA) 1 Jember. Purposive was used by the researcher to determine the research subjects totaling 8 people including the curriculum waka, teachers and 6 students. The data collection techniques used in this study used observation, interview and documentation techniques (Sugiyono, 2020; Engkizar, Sarianti, et al., 2022; Murniyetti et al., 2023; Engkizar et al., 2021). Meanwhile, to analyze the data, the researcher applied the Miles, Huberman and Saldana development techniques which included data collection, data condensation, data presentation and drawing conclusions or verification. Then to determine the validity of the data, source triangulation techniques and triangulation techniques are used (Miles et al., 2018; Engkizar, Kaputra, et al., 2022).

C. Finding and Discussion

Based on the results obtained from interviews, observations and documentation. It can be known that the learning planning carried out by Islamic religious education and ethics teachers is by compiling and designing Learning Modules using digital devices in the form of laptops, computers and smartphones which include the following 5 components:

1. General Information consists of the name of the compiler, educational unit, class, semester, subject, time allocation, year of preparation, phases, and elements, initial competencies, learning media, learning model, profile of Pancasila students, target students. learning model, Pancasila student profile, target learner.
2. The core components consist of learning outcomes, learning objectives, meaningful meaning, provocative questions, and learning activity flows.
3. Assessments include attitude assessment, knowledge assessment, skill assessment, enrichment and remedial.
4. Reflection of teachers and students on temperament material (ghadhab).
5. And the last one contains the appendices

In addition to learning tools, namely learning modules, there are also powerpoints and textbooks that are prepared using digital devices by teachers as a support in learning using a problem-based learning model based on digital literacy. by using a problem-based learning model based on digital literacy. Based on the findings of the lesson plan above, it can be analogous to the theory put forward by (Romadhon et al., 2023) that in the learning module there are several components that must be designed. that in the learning module there are several components that must be designed and prepared, including 1). Objectives in learning, 2). Steps in learning activities, 3). Assessment plan at the beginning of learning, 4). Assessment plan at the end of learning, 5). Media used during learning.

At this stage, researchers also found that to create and design learning modules, powerpoints, and textbooks, teachers use digital devices. utilizing digital devices. This finding is included in one of the pillars of digital literacy, namely (Digital Skills), digital skills can be analogized to Siswant's theory. Analogous to theory (Sa'diyah, 2022) that digital skills are our ability to understand, know, and use digital tools. Digital skills are our ability to understand, know, use, and effectively utilize hardware and hardware and information and communication technology software as well as digital operating systems in daily life. operating system in everyday life. More specifically, digital skills are digital skills that are inherent in the ability to analyze various information and data and think critically (Sutrisno & Yulia, 2022; Rudiart, 2024).

However, there are several additions from teachers in this learning planning such as teacher and student reflection, in this case teachers and students introspect after the learning is completed so that it becomes evaluation material for further learning. Reflections of teachers and students added to the learning tools, namely learning modules, are complementary to improve learning in the classroom.

Application of the problem based learning (PBL) learning model based on digital literacy

The process of implementing the digital literacy-based problem-based learning model carried out by Islamic Religious Education and Ethics teachers has three stages of activities as follows:

1. Introductory Activities

   From the results of all interviews, observations and documentation obtained by the researcher, it was found that the teacher carried out an introductory activity which began with the teacher giving greetings followed by prayers and tadarus along with

using the digital Qur'an application led by three to four students. Then the teacher checks the attendance and readiness of students in participating in learning. Then the teacher checks the attendance and readiness of the students in participating in the learning, the teacher asks questions about the material of the previous meeting as a repetition and reinforcement so that the previous material is inherent in the students' memory. And before learning the next material, the teacher before studying the next meter, the teacher gives light questions to attract or stimulate students' attention. interest in student involvement in understanding the next meter well. This preliminary activity in the opening of learning is carried out regularly in order to instill students' mental readiness before receiving learning.

The researchers' findings are analogous to the theory put forward by (Puspitasari & Resmalasari, 2023; Pitrianti et al., 2023) that students who are trained in the skills open lessons to create a mentally prepared and attention-inviting atmosphere. skills to create an atmosphere that is mentally ready and invites students' attention so that they have better learning outcomes and can arouse students' motivation in participating in learning. Arouse students' motivation in participating in learning. The next finding in this preliminary activity is that learning begins with prayer and tadarus together using a digital Qur'an application led by three to four students. four students. This is in line with one of the pillars of digital literacy, namely digital skills put forward by (Mukminin et al., 2024) that digital skills are our ability to understand, know, use and make effective use of information and communication technology hardware and software as well as communication technology hardware and software as well as digital operating systems in daily life. More specifically, digital skills are attached to the ability to analyze various information and data and think critically. analyze various information and data and think critically

2. Core Activities

Based on the results of observations, interviews and documentation that have been collected by researchers, in this core activity, it was found that the implementation of the steps of the digital literacy-based problem-based learning model has five steps as follows:

a. Orienting Students to Problems: The teacher explains important points related to the material to avoid temperamental traits (ghadhab). Then the teacher begins to give an overview of the temper tantrum (Ghadhab) and asks the students about real examples of temperly temper (Ghadhab) in daily life. students related to real examples of grumpy traits (Ghadhab) that students have seen. Next, the teacher displays pictures and videos about temperamental traits (Ghadhab) after which students give their opinions regarding the pictures and videos shown and begin to raise problems that occur around.

The findings in the first step of the application of the problem-based learning model of the problem-based learning model are that teachers utilize digital literacy in the form of digital literacy in the form of powerpoint slides or images and videos as supporting media in understanding and providing an overview of examples of

Ghadhab's traits. This finding is analogous to the theory of (Mukminin et al., 2024) which states that digital skills are our ability to understand, know, use and make effective use of information and communication technology hardware and software as well as digital operating systems in our daily lives. More specifically, digital skills are attached to the ability to analyze various information and data and think critically, so the findings presented are included in digital skills.

b. Orienting Students to Learn: at this stage the teacher has previously divided the students into several groups a week before the lesson starts or the teacher also divides the group through a whatsapp group message before the lesson starts so as not to take up time during the lesson. The group consists of 6 to 7 random students, each group has a chairman to be responsible for coordinating the tasks of its group members. Then the teacher gives a problem that will be discussed together with his group mates, with each group discussing the same problem topic but related to a different sub-material. And the teacher also asked each group to look for an example of a video about the grumpy nature of the ghadhab which was then explained the cause and effect of the person in the video being angry and then shown during the presentation in front of the class.

   The findings in the second step of the implementation of this problem-based learning model are included in one of the pillars of digital literacy, namely (digital culture) digital culture which is analogous to theory (Sutrisno & Yulia, 2022; Mukminin et al., 2024) that digital culture refers to the habits, values and behaviors of people in the digital world, digital culture must be filled with good values, so digital culture for Indonesian citizens must certainly be based on the values that are believed to be the Indonesian nation, namely the values of Pancasila.

c. Guiding Individual and Group Debriefing: Teachers guide students to do literacy and find solutions to problems provided through textbooks lent by the library, reviewing journal literature or browsing the internet. Students begin to investigate and study the problem together. In this activity, students exchange opinions and thoughts. The submission of the results of this analysis and discussion is then outlined in the form of writing. Teachers continue to supervise related to helping students to solve problems by providing direction and guidance so that students who do not understand and do not understand immediately ask questions related to the problem. The teacher asked students to be more active in discussing the problems given.

   The findings in the third step of the application of the problem-based learning model are analogous to the theory put forward by (Sutrisno & Yulia, 2022; Pitrianti et al., 2023) namely (Digital Skills) digital skills and (Digital Safety) safe in digital media, with digital skills we are able to understand, know, use and utilize digital devices effectively so that we can sort and select information so as not to be trapped in data misuse with supervision by teachers and discussions between group members as a form of vigilance and self-effort to avoid digital crime.

d. Developing and Presenting Results: Students are tasked with creating a concept map based on the results of analysis and discussions that have been conducted previously. Each group progresses in sequence and presents the results of the discussion in front of the class in turn. Next, a question and answer session was carried out between groups and then provided clarification or responses based on the results of the presentation made by other groups.

The findings in the fourth step in the implementation of the problem-based learning model can be analogized by (Saputra et al., 2024) namely (Digital skills) skills in digital media and ethics in digital (Digital Ethics) are no different from the physical world which does not separate from the values of Pancasila which is the basic philosophy of the Indonesian nation. In this case, students are trained to convey the results of discussions, ask and answer, convey responses and listen to and appreciate different opinions which are tangible manifestations of the application of the fourth precept of Pancasila.

e. Analyze and Evaluate the Problem-Solving Process: At this stage the teacher gives appreciation to all groups who have completed the discussion and presentation. Then the teacher evaluates and clarifies or straightens out inappropriate explanations and provides reinforcement related to the facts, materials or concepts that have been found.

From the findings, the steps for implementing the problem-based learning model in this core activity are analogous to the syntax that has been put forward by Richard I. Arends in the book Problem Based Learning. The arends in the book Problem Based Learning are as follows:

a. Provide problem-orientation to students: Discuss learning objectives, describe, and motivate students to engage in problem-solving activities.
b. Organizing students to research/study: Helping students define and organize study tasks related to the problem.
c. Guiding individual/group experiences/investigations: Encouraging students to gather appropriate information, conduct experiments to gain explanations, and solve problems.
d. Develop and present work: Assist students in planning and preparing appropriate work such as reports, and help them to share assignments with their peers.
e. Analyze and evaluate the problem-solving process: Help students to reflect or evaluate their investigations and the processes they use (Pitrianti et al., 2023).

From the presentation of the findings above, it can be concluded that there is a compatibility between the findings in the field and Richard I Arends' theory, but not all findings are in accordance with the syntax of Richard I Arends' theory, there is one step in the second step, namely organizing students to research and learning where the teacher organizes students or divides groups of students before entering the classroom or before learning begins so as not to take up time when learning takes place. In Richard I Arends' theory, organizing students should be done after the teacher provides an explanation and description of the material to be studied.

3. Closing Activities

The findings of the researcher at the closing stage of this learning are that the teacher will provide further explanation about the results of the discussion from the students, and ask the students to ask everything that they have not understood. And the learning ended with the reading of the kafaratul ceremony together. The findings in this closing activity are analogous to the theory put forward by Wina Sanjaya in the microteaching course module book that the closing activity aims to provide a comprehensive overview of what has been learned by students.

From the overall data findings analogous to various theories, it can be concluded that in the application of the digital literacy-based problem-based learning model in Islamic religious education and ethics subjects, the implementation in class X-5 runs according to the planned stages and also in accordance with scientific theories but not all steps can run according to the theory, In this implementation, there are several additions and subtractions in its implementation, but they still do not go out of the goal of implementing a problem-based learning model based on digital literacy.

Assessment of the digital literacy-based problem based learning (PBL) learning model

In the final stage of this discovery, the researcher found that the assessment or evaluation stage of learning in the digital literacy-based problem-based learning model in the subject of Islamic religious education and ethics at SMA Negeri 1 Jember was carried out using observational assessments during the discussion and presentation process, after the completion of the material a formative assessment was carried out using multiple choice questions on google form and the last evaluation was carried out namely summative assessment or commonly referred to as PAS. When students have not reached the minimum completeness criteria, the teacher holds remedial but with different questions.

The findings at this final stage are analogous to Yogi Anggraena's theory which states that: The application of an independent curriculum, the term assessment changes to Assessment. Formative assessment has two forms, namely assessment at the beginning of learning and assessment during learning. Assessment at the beginning of learning aims to support differentiated learning, so that students can receive learning according to their needs. Meanwhile, formative assessments carried out during learning can be used as a basis for reflecting on the overall learning process.

The results of this assessment inform learning planning and serve as a basis for revisions if necessary. If the learner has achieved the learning objective, the educator can proceed to the next learning objective. However, if the learning objectives have not been achieved, educators need to provide reinforcement first. After that, educators need to conduct summative assessments to ensure the achievement of overall learning objectives (Engkizar, Sarianti, et al., 2022; Romadhon et al., 2023; Ningtias & Putri, 2024).

At this stage, it was found that teachers conduct assessments using digital media, this is analogous to the theory put forward by (Pitrianti et al., 2023; Putri et al., 2024) namely one of the pillars of digital literacy, namely (digital culture) digital culture that technology plays a role in helping all activities, including in this assessment activity, this if it continues to be

done will become a habit in simplifying all aspects in the world of education so that there is a culture in this assessment using various other digital devices.

E. Conclusion

Based on all the results of observations, interviews and documentation about the implementation of the digital literacy-based problem-based learning model in the subject of Islamic religious education and ethics in class X5 of SMA Negeri 1 Jember, conclusions can be drawn: 1). Planning a digital literacy-based problem-based learning (PBL) learning model, namely by preparing teaching module learning tools, power points and textbooks and then preparing teaching materials. 2). The application of the digital literacy-based problem based learning (PBL) learning model has three stages of activities. a). The first stage is the teacher's preliminary activity to condition students to be ready to receive and follow learning from the beginning to do tadarus together, the teacher checks the attendance and readiness of students, the teacher reviews the previous material by providing questions, then the teacher conducts perception and motivation by providing lighter questions. b). The second stage of core activities is the implementation of the syntax of the problem-based learning model, including providing problem orientation to students, organizing students to research/learn, guiding individual and group investigations, developing and presenting the results of the work, and evaluating the problem-solving process. c). The third stage of the closing activity is the teacher gives further explanation about the results of the discussion from the students, and asks the students to ask all the things that have not been understood. And the learning ended with the reading of the kafaratul ceremony together. 3). The assessment of the digital literacy-based problem based learning (PBL) learning model in Islamic religious education and ethics in grades X-5 of SMA Negeri 1 Jember was carried out using observation assessments during the discussion and presentation process, after the completion of the material a formative assessment was carried out using google form multiple-choice questions and finally an evaluation was carried out, namely a summative assessment or commonly known as PAS. When students have not reached the minimum completeness criteria, the teacher holds remedial but with different questions. In the entire learning series from the beginning of planning, implementation, and finally the assessment stage, it is inseparable from the use and utilization of digital devices which include four pillars in digital literacy which are then used to support digital-based learning that takes place, including digital ethics, digital culture, digital skills, and digital security. These four pillars cannot be separated because they are interconnected.

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