

# Digital Literacy and Teacher Efforts in its Utilization in Islamic Religious Education (PAI) Learning

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**Abstract:** This study aims to analyze digital literacy among students and its correlation with student learning outcomes in Islamic Religious Education subjects and to find out the efforts made by teachers in utilizing digital literacy in PAI learning at SMPN 05 Lebong, Bengkulu Province. Digital literacy refers to an individual's ability to access, evaluate, used, shared and create information effectively using digital technology. In the context of PAI learning, digital literacy is becoming increasingly important due to the influence of technology on social interaction and access to religious information. This study uses mixed methods with qualitative and quantitative approaches. Data was collected through a digital literacy questionnaire given to 109 grade VIII students and in-depth interviews with PAI teachers. The questionnaire was distributes to measure students' digital literacy index and how much correlation it has with student Islamic education learning outcomes. Interviews with teachers were used to identify the strategies used in teaching PAI and the obstacles encountered in integrating digital literacy. The results of this study found out that there was a positive correlation between students' digital literacy index and Islamic education learning outcomes and an  $r$  value of 0.5017. Then there are 3 important efforts made by PAI teachers: 1) becoming a skilled and technology-based facilitator, 2) building communication with the headmaster, 3) being innovative and creative. It is hoped that digital literacy in PAI learning will provide students with a better understanding of technology, as well as being a driving force for teachers to continue to facilitate the use of digital in PAI learning. The implications of this research can be the basis for curriculum development that is more adaptive to technological developments and student learning styles. In addition, this research also contributes to the literature regarding the integration of digital literacy in PAI learning, which is still relatively under-researched.

**Keywords:** Digital Literacy, Teacher Efforts, Student Learning Outcomes, PAI Learning.

## Introduction

Digital literacy is one part of the National Literacy movement initiated by the government to support the creation of superior human resources which aims to provide basic literacy that individuals must have as part of their ability to survive in the 21st century (*Gerakan Literasi Nasional* | GLN, 2022). Digital literacy is also a content in current learning after the Covid-19 pandemic several years ago (Kenedi & Hartati, 2022). The impact of Covid on education has been felt so much that learning has changed to technology-based online. After Covid-19, the use of digital technology in learning remains an alternative (Aliyah, 2023) that teachers use to carry out interesting learning and train

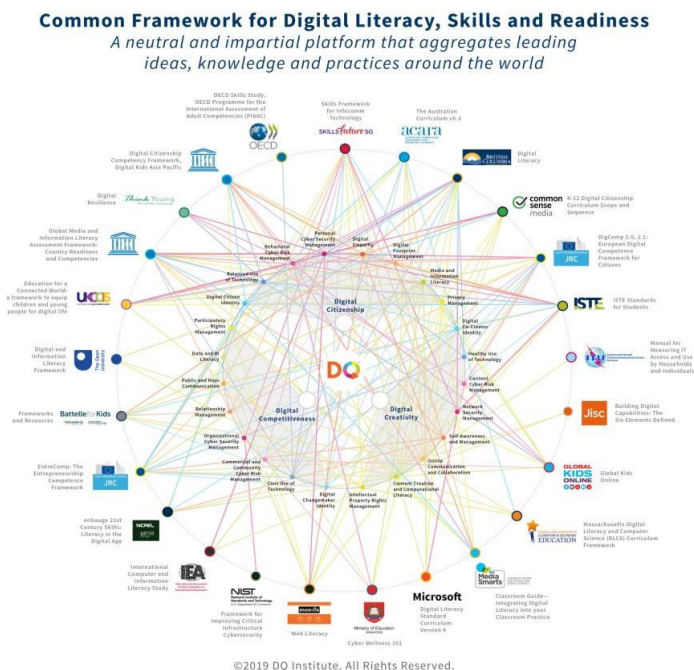
students' digital literacy. One of the subjects that uses digital technology as a learning medium is Islamic Religious Education at SMPN 5 Lebong. The use of digital technology as a PAI learning medium is based on the concerns of PAI teachers at SMPN 5 Lebong regarding students' low interest in learning PAI and a boring learning climate. Geographically, Lebong is a mountainous area in the northern part of the city of Bengkulu consisting of 12 sub-districts, SMPN 5 is located in Bingin Kuning Sub-district and the average population works as farmers. This is the background to which students' interest in technology at SMPN 5 Lebong is quite strong, so the teacher took the initiative to use the computer laboratory (Hafizah, 2022) as one of the classes for PAI learning and the results were

able to arouse students' interest in PAI learning. Once students have good interest, of course in the future it will have an impact on student learning outcomes (Citra & Rosy, 2020).

Teachers' efforts to design PAI learning to be interesting are a must (Darmasari, 2023) so that students can help students better understand the material presented in class. The use of technology is an alternative chosen by many teachers in designing PAI learning at school (Zen et al., 2023), because it is considered capable of attracting students' interest and learning motivation better than not using technology (Akram et al., 2022). The use of technology in learning for students will provide a pleasant experience and be able to develop their creativity (Zainuri & Sukarno, 2022) so that it becomes an alternative choice for teachers to use it in classroom learning.

The use of technology is also inseparable from digital literacy, starting from the fields of

pharmacy (Crilly et al., 2023), ELT (Bilki et al., 2023), psychology (Hu & Meng, 2023) (Camacho & Torous, 2023), politics (Guess & Munger, 2023), and various other educational fields. The development of digital literacy is a concern with the widespread use of technology in education (Marín & Castaneda, 2023). In fact, the definition of digital literacy is still being discussed by various experts, based on research conducted by (Marín & Castaneda, 2023) that the development of digital literacy in the educational context is shaped by complexity both internationally, nationally and even in some cases locally and institutionally. The number of frameworks developed in the last 20 years is enormous. Several global frameworks in the form of integration that summarize all the competencies and literacy needed by anyone in any condition to face new technologies and society efficiently.



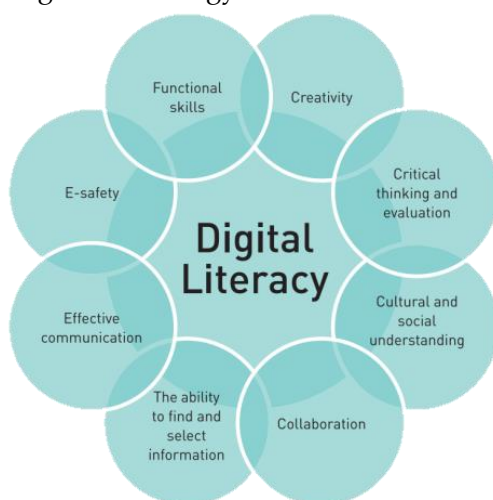
**Figure 1.** Digital Literacy Framework, downloaded from Dqinstitute (<https://www.dqinstitute.org/global-standards/>) @2019.

Because too many frameworks have been developed (see Figure 1) related to digital literacy, in this study researchers used the digital literacy index developed by Hague and Payton (Hague, C., & Payton, S., 2010) which suggests that digital literacy is concept of technological interaction and *user* in its effective use. Digital literacy is also

considered the ability to create and share in different modes and forms; create, collaborate and communicate more effectively, and understand how and when to use digital technology well to support these concepts.

There are 8 components of the digital literacy index according to Hague and Payton (see figure

2), namely **a) Functional skill and beyond**, is the first ability related to knowledge, understanding and skills in using technology, familiarity with various types of technological content and the ability to produce final products from technology; **b) Creativity**, is a component related to the ability to think imaginatively, innovatively and develop ideas in creating a product in various formats and models by utilizing digital technology; **c) Collaboration**, is the ability to build collaboration in the form of dialogue, discussion and building ideas together in digital space; **d) Communication**, is a component that measures a person's ability to communicate via digital media. Effective communication and digital literacy are closely related to the ability to build ideas and mutual understanding between audiences in the digital space; **e) The Ability to Find and Select Information**, is the ability to search, select and be careful with information in the digital space and use search sources selectively; **f) Critical thinking and evaluation**, is the ability to analyze and contribute thoughts to the information obtained, so that the information is more meaningful; **g) Cultural and Social Understanding**, digital literacy practices should be in line with the context of social and cultural understanding and **h) E-Safety**, is the ability to use digital media safely, and guarantees users to explore, create, collaborate with digital technology



**Figure 2.** Digital Literacy (chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.nfer.ac.uk/media/1tgpl0a5/futl06casestudies.pdf).

The digital literacy index is a step to determine the extent to which someone understands, owns

and uses their knowledge related to digital technology (Adriansyah & Rahmayati, 2023). Students as individuals who frequently interact with technology should have their digital literacy index known by teachers (Bahri et al., 2022) so that the media used and educational services provided will help students understand learning material, increase interest and effectiveness of learning (Palangda, 2023) especially PAI learning which requires specificity so that students are able to understand the material well (Romdhoni, 2023). This is what TH, a PAI teacher at SMPN 05 Lebong Bengkulu, has done, who utilizes digital technology in PAI learning so that students' interest in learning PAI is quite high when learning is carried out in the computer laboratory, which is the basis for researchers to explore further how students' digital literacy at SMPN 05 works. Lebong. This is important, because good digital literacy will make it easier for students to understand and operate various electronic devices used by teachers during the learning process. After knowing the students' digital literacy index (Syefrinando et al., 2022), the researchers continued by looking at the correlation with PAI learning outcomes for one semester. Of course, this is based on the researcher's assumption that a good digital literacy index will have a positive correlation with student learning outcomes. This assumption is based on the results of research conducted by (Hafizah, 2022) regarding the use of computer laboratories which can arouse students' interest in learning at SMPN 05 Lebong. Apart from that, researchers are also interested in the various efforts made by teachers in utilizing digital technology (Ahmaddien et al., 2022) in PAI learning so that students' interest can increase than before.

## Materials and Methods

This research uses a mixed methods approach or what is often called mixed methods. This mixed method research is a research method that to answer research questions needs to be tested not only in terms of outcomes but also the process so that this research combines quantitative and

qualitative research methods in one study (Arslantas & Gul, 2022).

Based on theory, mixed methods have four types and two main models (Cresswell, 2007; Sugiyono, 2011). These four types of mixed methods consist of embedded, explanatory, exploratory and triangulation types. Meanwhile, the two main models are sequential (sequence) and concurrent (mixed) models. The sequential model encompasses the explanatory type (sequential explanatory) and the exploratory type (sequential exploratory). The sequential explanatory type is a mixed qualitative and quantitative method where quantitative data mining is carried out first and then research implications are obtained through qualitative evidence.

In the context of this research, the mixed method that will be used is the sequential explanatory method. Researchers chose to use this research method with several considerations. First, researchers want to measure students' digital literacy index and its correlation with PAI learning outcomes for class VIII students at SMPN 05 Lebong. To measure the student's digital literacy index, the author uses a quantitative method where the author will conduct a survey by distributing digital literacy questionnaires which was adapted from Hague & Payton in (Nasionalita dan Nugroho, 2020) then modified according to research needs, namely digital literacy related to the use of computer laboratories in PAI learning at SMPN 05 Lebong. Then, researchers will also measure student learning outcomes by looking at the PAI course report scores for the even semester of the 2022/2023 academic year. The results of measuring students' digital literacy index and learning outcomes will be seen in their relationship and/or interrelationship with each other using quantitative calculations to measure correlation. With the hypothesis that there is a positive correlation between students' digital literacy index and PAI learning outcomes. Finally, as a reinforcement of the results of quantitative data analysis, researchers want to obtain information related to the efforts that PAI teachers have made in utilizing technology so far so that students have a digital literacy index and good or bad learning outcomes.

In summary, the sequence of using sequential explanatory mixed methods in research is depicted in the following diagram.

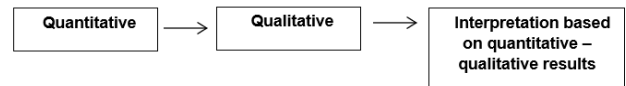


Figure 3. Mixed methods sequential explanatory

Quantitative methods were used in the initial stages of this research method and qualitative methods were used for the subsequent stages. The method emphasis is more on the first method, namely the quantitative method and is complemented by the next method, namely the qualitative method. The combination of data from both methods is connected between the results of the first research using quantitative methods and the results of second research using qualitative methods.

The population in this study were all class VIII students at SMPN 05 Lebong, Bengkulu Province for the 2022/2023 academic year as in the following table:

| No     | Class  | The number of students | Gender |       |
|--------|--------|------------------------|--------|-------|
|        |        |                        | Man    | Woman |
| 1      | VIII 1 | 30                     | 14     | 16    |
| 2      | VIII 2 | 33                     | 16     | 17    |
| 3      | VIII 3 | 29                     | 15     | 14    |
| 4      | VIII 4 | 30                     | 14     | 16    |
| 5      | VIII 5 | 29                     | 12     | 17    |
| Amount |        | 151                    | 71     | 80    |

Based on the table above, the population of class VIII students at SMPN 05 Lebong is 151 students. For research purposes a sample will be determined through *random sampling*. Determining the number of samples in this study used the Generic Sample Size Formula pioneered by Maman A. Djauhari with a normally distributed population as follows (Taufiqurrahman & Rofiqah, 2023):

$$n = \left( z \frac{\sigma}{e} \right)^2$$

After carrying out calculations using the help of MS. Excel found z value without rounding =

1.959964,  $p$  value = 0.5,  $e$  value = 0.05 and  $\alpha$  value = 0.05 so the total sample in this study was 108,559. The value of  $n$  is a number that has a decimal point (if you write a sample of 2 digits after the comma,  $n$  = 108,559). In practice, the value of  $n$  is rounded up to  $n$  = 109.

The data analysis technique for measuring the digital literacy index uses a scale of 1-6 on a scale adapting calculations from Cris Wornshop in (Nasionalita dan Nugroho, 2020) which divides the answers into 6 levels as in the following table

| Level | Information       |
|-------|-------------------|
| 1     | Don't know        |
| 2     | Strongly disagree |
| 3     | Don't agree       |
| 4     | Disagree          |
| 5     | Agree             |
| 6     | Strongly agree    |

Then for the digital literacy index, the score is calculated using an average (Mean) then the results are divided into 3 levels, namely Basic with a mean value of 17% - 45%, Intermediate level with a mean value of 45.1% - 73% and finally the Advanced level with a value mead 73%-100%. For students' PAI learning outcomes, researchers used students' report card scores in the 2022/2023 even semester academic year. Then, after obtaining these two data, the researcher carried out a correlation analysis to see whether there was a positive relationship between students' digital literacy index and student learning outcomes in PAI subjects at SMPN 05 Lebong using SPSS-assisted product moment analysis.

Data collection was carried out by distributing questionnaires directly to respondents at schools. The subjects in this research were 109 class VIII students at SMPN 5 Lebong consisting of student representatives from 5 classes. This research is not intended to generalize the digital literacy index as a whole, but is a continuation as an initial illustration of the results of research conducted by Tamama Hafizah regarding the positive results of students' interest in learning PAI at SMPN 05 Lebong in the computer laboratory.

## Result and Discussion

Based on the results of filling out the questionnaire by 109 respondents in the survey that was conducted, the student digital literacy index data was obtained at 61.40. In calculating the percentage value, this value was at level 2, which means that the digital literacy index for class VIII students at SMPN 05 Lebong was at an intermediate level. Further information can be seen in the following chart:

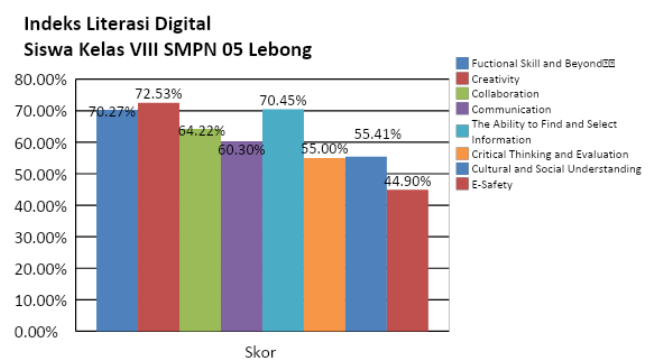


Figure 4. Digital Literacy Index Results for Each Dimension.

From the chart above, the highest score is 72.53 in the dimension *creativity*, the use of a computer laboratory in PAI learning carried out at SMPN 05 Lebong provides support for students' digital literacy index, so that students' creativity becomes better in studying PAI material through the use of digital-based media. This is also in line with students' digital literacy ability to be more active in searching for and finding information related to PAI material through digital-based media, indicated by a score of 70.45 in the dimension *The Ability to Find and Select Information*. In this case, someone with good digital literacy is required to be careful in selecting and finding information with the help of digital media. Students at SMPN 05 Lebong in accessing information on PAI learning materials already have quite good skills in using digital media available in the school computer laboratory. This is indicated by a score of 70.27 on the dimension *Funcional Skill and Beyond*, where the ability to operate technology-based media such as computers has been well mastered, apart from that students are also used to using cellphones in PAI learning. The use of computers in PAI learning is

not only limited to learning media, but also becomes a place for students to be creative and create various assignments and carry out digital-based evaluations.

| No                     | Indicator                                  | Statement   | Mark  | Index per dimension |
|------------------------|--|---|-------|---------------------|
| 1                      | Functional Skill and Beyond                | I have ICT skills and am able to operate them in a computer laboratory                          | 70.45 | 70.27               |
|                        |  | I have the ability to access the internet in the computer laboratory                            | 70.09 |                     |
| 2                      | Creativity                                 | I am able to create various PAI learning tasks in various forms by utilizing digital technology | 66.23 | 72.53               |
|                        |  | I have the ability to think creatively when learning PAI in the Computer Laboratory             | 73.39 |                     |
|                        |  | I have the ability to think imaginatively when using software in PAI learning                   | 77.9  |                     |
| 3                      | Collaboration                              | I have the ability to participate in the digital space  | 80.7  | 64.22               |
|                        |  | I am able to explain ideas/opinions with other people in groups in the digital space            | 54.7  |                     |
|                        |  | I am able to explain ideas/opinions with other people in groups in the digital space            | 57.7  |                     |
| 4                      | Communication                              | I am able to communicate via digital technology media   | 81.6  | 60.30               |
|                        |  | I understand the audience in the digital space  | 51.19 |                     |
|                        |  | I understand audiences in the digital space   | 48.07 |                     |
| 5                      | The Ability to Find and Select Information | I am able to search for information in the digital space when learning PAI                      | 71.74 | 70.45               |
|                        |  | I am able to select information in the digital space related to PAI material                    | 69.1  |                     |
| 6                      | Critical Thinking and Evaluation           | I am able to contribute when dealing with information in the digital space                      | 61.4  | 55.04               |
|                        |  | I am able to analyze the moment when dealing with information in the digital space              | 51.3  |                     |
|                        |  | I am able to think critically when dealing with information in the digital space                | 52.2  |                     |
| 7                      | Cultural and Social Understanding          | I have thoughts that are in line with social and cultural understanding                         | 55.4  | 55.41               |
| 8                      | E-Saftey                                   | I can guarantee safety when creating with digital technology                                    | 41.28 | 44.9                |
|                        |  | I can guarantee safety when exploring with digital technology                                   | 43.1  |                     |
|                        |  | I can guarantee security when collaborating with digital technology                             | 50.45 |                     |
| Digital Literacy Index |  |   |       | 61.40               |

Source: Processed research data (2023)

Overall, the digital literacy index for class VIII students at SMPN 05 Lebong is 61.40. These numbers fall into categories *intermediate* seen from the eight components of digital literacy. Of the eight components of digital literacy according to (Hague, C., & Payton, S., 2010), *Creativity* got a score of 72.53. as the component with the highest score. This component focuses on students' ability

to be creative in the tasks given by the teacher in PAI learning. PAI learning carried out in the computer laboratory has provided opportunities for students to be creative by utilizing the computers and internet used at school. As generation Z, who is very close to technology, they are used to using digital technology in their daily lives. So the ability to search and find the



information needed regarding PAI material is easy. As components *The Ability to Find and Select Information* has the next highest score with a score of 70.45. The opportunity given by teachers to access information related to PAI material being studied through the use of digital technology brings students the ability to search and find information while still paying attention to boundaries that are in accordance with academic rules. This is because students' computer operating skills are already good because they are used to using computer laboratories before. Students at SMPN 05 Lebong often use computer laboratories in other subjects, and often also use computers outside of school such as internet cafes, so the components *Functional Skill and Beyond* was at the third highest score of 70.27. Even though the students at SMPN 05 come from simple family backgrounds, their ability and willingness to learn about technology is quite high.

Furthermore, related to student PAI learning outcomes, researchers took the summative evaluation scores of students for the 2022/2023 academic year in the even semester. The data that has been obtained is then analyzed and distributed using the TSR method as follows:

Frequency Distribution of PAI Learning Outcome Scores for Class VIII Students at SMPN 05 Lebong

| Classification | Frequency | Present |
|----------------|-----------|---------|
| Height         | 26        | 23.85%  |
| Currently      | 59        | 54,12%  |
| Low            | 24        | 22%     |
| Amount         | 109       | 100%    |

From the data above, it can be concluded that the PAI learning outcomes of class VIII students in the even semester of the 2022/2023 academic year are in the good category with an accumulated percentage of 77.97% spread across three classifications, namely a percentage of 23.85% in the high PAI learning outcomes category, with a percentage of 54.12% of students' PAI learning outcomes are in the medium category and 22% of students' PAI learning outcomes are in the low category.

After obtaining the two data required in this research, a correlation analysis was then carried

out between students' digital literacy index and PAI learning outcomes. To test the correlation hypothesis between students' digital literacy index and PAI learning outcomes for class VIII students at SMPN 05 Lebong where:

Ha = There is a positive and significant correlation (relationship) between students' digital literacy index and independent PAI learning outcomes for class VIII students at SMPN 05 Lebong

Ho = There is no positive and significant correlation (relationship) between students' digital literacy index and independent PAI learning outcomes for class VIII students at SMPN 05 Lebong

The basis for decision making uses the correlation coefficient ( $r_{xy}$ ). If the correlation coefficient value is positive, it can be seen that there is a positive relationship between the independent variable and the dependent variable. To test this hypothesis, Karl Person's Product Moment correlation analysis was used. Meanwhile, to test significance is to compare the  $r_{count}$  value with  $r_{table}$  at a significance level of 5%. If the  $r_{count}$  value is greater than  $r_{table}$  then the relationship is significant. Conversely, if the  $r_{count}$  value is smaller than  $r_{table}$  then the relationship is not significant.

The price of the  $r$  product moment table with 109 respondents. The value of the  $r$  table for 109 respondents (how to read " $r$ "  $df = N - nr = 109 - 2 = 107$ ) by examining 5%, the value of  $r$  table = 0.188 is obtained which is positive or there is a relationship in the same direction . Because  $r_{xy} =$  at a significance level of 5% is greater than  $r_{table}$ , namely  $0.188 > 0.05$ , at a significance level of 5% the null hypothesis is rejected, while the alternative hypothesis is accepted, meaning that at a significance level of 5% as seen from the correlation coefficient figure. So it can be stated that there is a positive and significant correlation between students' digital literacy index and the independence of PAI learning outcomes for class VIII students at SMPN 05 Lebong.

The results of the correlation test between self-endurance and learning independence for new

students from SMA, MA and Islamic Boarding Schools in online lectures can be seen in the following table.:

| Correlations           |                     | Digital Literacy Index | PAI Learning Outcomes |
|------------------------|---------------------|------------------------|-----------------------|
| Digital Literacy Index | Pearson Correlation | 1                      | .501**                |
|                        | Say. (2-tailed)     |                        | .000                  |
|                        | N                   | 109                    | 109                   |
| PAI Learning Outcomes  | Pearson Correlation | .501**                 | 1                     |
|                        | Say. (2-tailed)     | .000                   |                       |
|                        | N                   | 109                    | 109                   |

\*\* . Correlation is significant at the 0.01 level (2-tailed).

From the SPSS output results in the table, it is obtained:

- The correlation coefficient ( $r$ ) value is 0.5017 which has a positive sign, meaning (there is a unidirectional relationship), so the higher the digital literacy index, the better the students' PAI learning outcomes will be.
- The magnitude of the correlation (0.5017) is  $> 0.05$ , where a correlation ranging from 0.40-0.599 is a fairly strong correlation. This means that students' digital literacy index is quite strongly correlated with students' PAI learning outcomes.

Based on the SPSS analysis that was carried out previously, it was found that the correlation coefficient ( $r$ ) was 0.501, which was positive, meaning there was a unidirectional and significant relationship between the digital literacy index and students' PAI learning outcomes. Furthermore, the magnitude of the correlation (0.501) is  $> 0.05$ , where a correlation of 0.40-0.599 is a fairly strong correlation. This means that students' digital literacy index is quite strongly correlated with students' PAI learning outcomes. This cannot be separated from the efforts that teachers have made in designing and implementing PAI learning with different treatments. One of them is carrying out PAI learning in a computer laboratory. Apart from utilizing existing school facilities, PAI teachers of course have other efforts to provide the best educational services for students. Based on the results of interviews conducted, there are three

categories of efforts made by teachers in utilizing students' digital literacy in PAI learning.

**First**, Become an agile and technology-based facilitator. The first effort made was to position oneself as a facilitator, namely providing good learning facilities for students and of course technology-based, so choosing a computer laboratory was the initial effort made by PAI teachers. This can be seen in the interview excerpt as follows:

*In an interview with TH PAI Teacher SMPN 05 Lebong, She stated that choosing the computer laboratory as a place to learn PAI other than in class was to provide different treatment and have an impact on students. Nowadays, students are very used to using technology in their daily lives, so it is not wrong to use the computer laboratory as a place for students to study PAI material with the help of technology. Also to improve students' digital literacy so that it will be even better in the future.*

This is also reinforced by AO, ICT Teacher / Head of the Computer Laboratory, he stated that the use of the computer laboratory is not only for ICT subjects, teachers of other subjects may use it too but still pay attention to time and permission from the leadership.

PAI learning in the laboratory was also felt by HA students in class VIII.2 he stated that it was really exciting to study PAI in a computer laboratory, different from usually studying outside the classroom only in the library or in the yard. Mrs. TH often uses technology in learning PAI so that learning is not boring and we can also use the computer in the room.



Based on the interview excerpt above, it can be concluded that the PAI teacher at SMPN 05 Lebong is making maximum efforts to become a facilitator by utilizing digital media provided by the school. So that PAI learning which was previously carried out conventionally can be made more interesting and memorable and increase students' skills in operating computers in the computer laboratory room. The teacher as a facilitator provides opportunities for students (Darmasari, 2023) to explore their abilities so that they can develop well, so that the teacher does not provide the material in its entirety but rather gives students the opportunity to search for and find the material.

**Second,** The efforts made by the PAI teacher at SMPN 05 Lebong were to build communication with the school principal, the communication in question was to collaborate with the head of the curriculum as well as the principal and head of the computer laboratory regarding scheduling so as not to clash with other subject teachers. This can be seen in the following interview excerpt:

Interview with J, Headmaster of SMPN 05 Lebong, *He stated that it was true that PAI teachers built communication to use the computer laboratory to learn PAI. At the beginning I was pessimistic because PAI learning was usually carried out in the prayer room or library. This is the first time PAI learning has been carried out in a computer laboratory, I think the reasons given are also reasonable, and use technology in its implementation. Of course, as leaders, we appreciate this, so we are given 2 semesters to see what changes occur in students.*

This was also reinforced by TH, PAI teacher at SMPN 05 Lebong she said that building communication with the principal was an initial effort made so that in the future the steps taken would not harm students and would be known by the leadership. *Of course, what we are doing is different with the aim of achieving extraordinary things. Building communication is also being carried out with the deputy principal for curriculum so that the scheduling for this semester can be improved according to previous discussions.*

In line with this, AO ICT teacher / Head of Computer Laboratory said *I received directions from the deputy principal for curriculum to give Mrs. TH a special schedule for learning PAI in the Computer*

*Laboratory. I only helped, adapting to my superior's directions.*

Based on the interview excerpt above, efforts to build communication with leadership have been implemented and received support. It has been proven that the computer laboratory can be used by PAI teachers to carry out PAI learning and get a special schedule for one semester.

**Third,** The final effort made by PAI teachers is innovation and creativity. The innovations carried out by PAI teachers are very diverse and enable students to gain different experiences (Tytova & Mereniuk, 2022) in PAI learning. This can be seen from the following interview excerpt:

Interview with RA students of class VIII.1, *learning PAI with Mrs. TH was really fun, we learned a lot of new things. As with the material about respecting parents, apart from getting PAI learning material related to parents, we were taught to edit photos with parents in the computer laboratory using the Canva application. This makes me happy because I can upload photos with my parents with my own work.*

This is in line with ISA, students of class VIII.4, *studying PAI is usually in the prayer room or library. This time we studied in the computer laboratory, it was fun because the laboratory room was cool and comfortable, I concentrated more on following the PAI learning.*

According to AZE, students of class VIII.3, *it's true that studying with Mrs. TH is unpredictable, very innovative, sometimes I'm tired but still enthusiastic because I often use technology-based media that I usually use at home such as WA and the internet in the computer laboratory. Once we learned to use Prezi and Quizzizz in the computer laboratory and it was really fun.*

Based on the interview excerpts, information was found that PAI learning was carried out with various innovations and creativity (Latip et al., 2022), so that the learning carried out was not boring and still used a technological approach as an effort to stimulate students' digital literacy in the current technological era.

## Discussion

The digital literacy index for students at SMPN 5 Lebong is 61.40, which is in the intermediate

category, meaning that students' literacy skills in utilizing digital space are quite good based on the 8 digital literacy index categories according to (Hague, C., & Payton, S., 2010). The ability to use technology and digital spaces well and effectively must be possessed by every individual in facing learning in the 21st century as it is today, including teachers and students (Marín & Castaneda, 2023). The digital literacy index in the context of this research only looks at students' ability to utilize technology (computer laboratories), the internet, and their use in digital spaces to search, find, analyze and produce relevant PAI learning materials. This is also assumed to have a positive correlation with student PAI learning outcomes. After exploring in depth. The assumed hypothesis is proven to have a positive correlation between students' digital literacy index and students' PAI learning outcomes with a value of 0.501. This finding is in line with research conducted by (Pirnazarovna, 2022) that the use of digital technology in learning will help students be more interactive and encourage quite strong interest in learning compared to not using technology.

Utilizing digital literacy is also a necessity for teachers (Umayah & Riwanto, 2020). In this era of 21st century education, teachers must also be sensitive to increasingly rapid technological developments. Various efforts that can be made by teachers are planning and utilizing technology in classroom learning. In the context of this research, this has been done by PAI teachers with various approaches such as communicating with the school principal, building collaboration with the head of the computer laboratory and trying to provide innovation by utilizing existing facilities at school, finally teachers also have creativity in designing PAI learning to be more effective and fun.

### Conclusions

The digital literacy index for class VIII students at SMPN 05 Lebong is at the intermediate level with a score of 61.40, this shows that students are used to using technology in Islamic Education learning at school. Even though they are still at the intermediate stage, students' digital skills still need

to be developed so they are able to use digital more effectively. Then, based on the analysis, it is known that the correlation is quite strong between students' digital literacy index and PAI learning outcomes with an  $r$  value of 0.501. This shows that the better the student's digital literacy, the stronger the relationship with PAI learning outcomes. Finally, the efforts made by teachers to utilize students' digital literacy are categorized into 3, namely: 1) becoming agile and technology-based facilitators, 2) building communication with school principals, and 3) innovation and creativity. It is hoped that digital literacy in PAI learning will provide students with a better understanding of technology, as well as being an incentive for teachers to continue to facilitate the use of digital in PAI learning.

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