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Implementation of Digital Literacy-Based Learning in Developing Students' Critical Thinking Skills at Mtsn 1 Palu

Ummu Kalsum[1]*
[1]*Islamic Religious Education Study Program State Islamic University Datokarama Palu, Indonesia*

***Corresponding Author**: **Ummu Kalsum** E-mail: ummukalsum2811@gmail.com

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ABSTRAK

This study aims to describe the implementation of digital literacy-based learning in developing students' critical thinking skills at MTsN 1 Palu. The background of this research is the growing need to foster students' critical thinking abilities in the digital era through the effective use of information technology in the learning process. This research employed a descriptive qualitative method, involving teachers and eighth-grade students of MTsN 1 Palu as participants. Data were collected through observation, interviews, and documentation, and analyzed through data reduction, data display, and conclusion drawing. The results indicate that digital literacy-based learning at MTsN 1 Palu is implemented through the use of digital media such as e-learning platforms, online learning applications, and various digital literacy resources. This implementation has enhanced students' active participation and fostered critical thinking skills through activities of analyzing, evaluating, and reflecting on digital information. Therefore, digital literacy plays an essential role in sustainably developing students' critical thinking skills within the madrasah learning environment.

1. Introduction

The development of information and communication technology in the digital era has brought significant changes to the world of education. Learning processes, previously dominated by conventional methods, are now transforming toward more interactive, technology-based learning. Digital literacy is a crucial competency for educators and students to adapt to the dynamics of the times. In this context, the ability to utilize digital resources wisely, critically, and creatively is the primary foundation for creating meaningful learning processes relevant to the needs of the 21st century.

Critical thinking skills are a key competency that needs to be developed in students in the digital age. Through critical thinking, students are able not only to receive information but also to analyze, evaluate, and make rational decisions based on evidence and logic. However, in reality, critical thinking skills among madrasah students are still relatively low because the learning process is often teacher-centered and does not involve students in exploring ideas and reasoning. Therefore, learning innovations are needed that can foster critical thinking skills, one of which is through the implementation of digital literacy-based learning.

Digital literacy-based learning is an approach that integrates technical skills in accessing, analyzing, and critically evaluating digital information. Digital literacy supports the development of students' critical thinking skills by providing broad access to

Ummu Kalsum is a Student of Islamic Religious Education Study Program at Postgraduate School, State Islamic University Datokarama Palu, Indonesia. This paper was presented at the 4th International Conference on Islamic and Interdisciplinary Studies (ICIIS) 2025, as a presenter, held by the Postgraduate School State Islamic University Datokarama Palu, Indonesia.

various digital information sources and encouraging the process of analysis, reflection, and evaluation of the truth of information (, web: Implementation of digital literacy-based learning can use an effective Problem-Based Learning (PBL) approach to provide space for students to actively seek and process digital information and develop logical and reflective arguments. Various digital applications such as Merdeka Mengajar, Canva, and Quizizz support learning activities and deepen critical thinking skills.

Digital iteration not only improves critical thinking skills but also contributes to students' creative thinking, particularly in developing new ideas and constructing logical arguments. However, the influence of digital literacy is more dominant in information evaluation and critical problem-solving skills (web: The development of digital literacy in schools, such as MTsN 1 Palu, is also supported by innovative programs such as digital classes (Smart Class), which implement IT-based learning, thus providing more varied learning tools and resources for students.

MTsN 1 Palu, as one of the state madrasahs in Palu City, strives to integrate digital literacy into the learning process to improve the quality of education and improve students' 21st-century skills. The implementation of digital literacy-based learning not only involves the use of technology as a learning medium but also emphasizes students' abilities to critically understand, analyze, and produce digital information. This study aims to describe how digital literacy-based learning is implemented at MTsN 1 Palu and how this implementation can contribute to the development of students' critical thinking skills.

2. Literature Review

Digital literacy is the ability to understand, evaluate, and utilize information through digital technology effectively, ethically, and responsibly (Gilster, 1997). According to UNESCO (2018), digital literacy is an integral part of 21st-century competencies, encompassing the ability to access, manage, understand, and create information in various digital formats. In the context of learning, digital literacy serves to support a more interactive learning process based on the exploration of information from various digital sources.

Critical thinking is defined as the ability to analyze, assess, and evaluate information logically and reflectively in order to make informed decisions (Ennis, 2011). According to Facione (2015), critical thinking involves six key skills: interpretation, analysis, evaluation, inference, explanation, and self-regulation. Therefore, effective learning must provide space for students to ask questions and consider multiple perspectives.

The relationship between digital literacy and critical thinking is complementary. Digital literacy provides broad access to information, while critical thinking helps students interpret information rationally. According to Hobbs (2010), critical thinking skills are at the heart of digital literacy because students need to evaluate the credibility of sources and understand the biases of information they encounter online**.**

In the context of this research, several relevant studies have been conducted regarding the implementation of digital literacy-based learning to build critical thinking skills of students at MTsN 1 Palu.
Tabel of Previous Reseach

No	Research Title	Resercher/ Year	Subject/ Location	Method	Main Result	Relevance
1.	Analysis of Students' Digital Literacy in Science Learning at MTs Negeri 1	**Fatimah Lutfiati Syifa (2022)**	Student of MTsN 1 Bogor	Qualitatifve descriptive	Digital literacy can train critical thinking skills and improve the quality of science learning; however, students	Menunjukan bahwa terdapat perbedaan signifikan dalam keterampilan berpikir kritis antara peserta didik yang aktif

	Bogor				tend to be less able to evaluate information.	menggunakan sumber belajar digital
2	The Influence of the Gerakan Literasi Sekolah Program on Students' Critical Thinking Skills in the Civics Subject of Class VIII MTsN 3 Mataram	Nur Gita Suciyati, Rispawati, Sawaludin, & Lalu Sumardi (2022)	Students of Class VIII MTsN 3 Mataram	Quantitative (experimental or quasi-experimental))	Gerakan Literasi Sekolah (GLS) program significantly improves students' critical thinking skills; students are more active in reading, analyzing, and arguing logically.	Proving that structured literacy activities in learning (PPKn) can strengthen critical thinking and understanding of social issues in a contextual manner.
3.	Improving Digital Literacy Skills of MTs Students through the iPusnas Online Library Application	Siti Fatimah (2022)	*MTs Studens*	Quasi-eksperiment	Researching the use of the iPusnas application as a digital media to improve digital literacy of MTs students.	Researching the digital literacy as an effort to improve the quality of learning for MTs students.

3. Methodology

This research uses a quantitative approach with a classroom action research (CAR) design focused on improving the learning process through the implementation of digital literacy-based learning. The classroom action model employed is based on Kurt Lewin's model, which consists of four stages: (1) planning, (2) acting, (3) observing, and (4) reflecting (Lewin, 1946 in Hopkins, 2014).

This approach was chosen because the primary objective of the research is to improve students' critical thinking skills through the application of digital literacy-based learning strategies that can be implemented and evaluated directly in the classroom (Arikunto, 2019).

4. Results and Discussion

The implementation of digital literacy-based learning at MTsN 1 Palu was carried out through the use of media such as Google Classroom, Canva, and madrasah e-learning. Teachers acted as facilitators, guiding students in searching, selecting, and interpreting information from various digital sources (UNESCO, 2018; Hobbs, 2010). This implementation increased active student participation and fostered critical thinking skills through analysis and reflection on digital information (Facione, 2015).

The results of the study showed that the implementation of digital literacy-based learning at MTsN 1 Palu significantly improved students' critical thinking skills. Students became more active in searching, analyzing, and evaluating digital information obtained from various learning sources. This helped them develop logical and systematic argumentation and problem-solving skills throughout the learning process.

This section is a comparative or descriptive analysis of the study based on the study results, previously literature, etc. The results should be offered in a logical sequence, given the most important findings first and addressing the stated objectives. The author should deal only with new or important aspects of the results obtained. The relevance of the findings in the context of existing literature or contemporary practice should be addressed.

The use of various digital media and applications in learning provides a more engaging and effective learning experience. Teachers utilize technologies such as smart classes, digital quizzes, and online learning platforms that integrate digital literacy

into every learning activity. Thus, students not only become accustomed to using technology but also train themselves to think critically and creatively when addressing complex problems.
However, research has also identified several obstacles, such as limited digital facilities and infrastructure and variability in teachers' digital literacy skills (Gilster, 1997). Environmental factors and school support also influence the successful implementation of digital literacy-based learning.

Therefore, infrastructure support and digital competency training for teachers are essential for optimal implementation of digital literacy and the development of students' critical thinking skills at MTsN 1 Palu.

5. Conclusion

5.1 Conclusions

Based on the research results and data analysis conducted through two cycles of action, the following conclusions can be drawn:

1. The implementation of digital literacy-based learning has proven effective in improving students' critical thinking skills at MTsN 1 Palu.The application of learning strategies involving digital literacy activities—such as searching, analyzing, and evaluating online information—has fostered students' ability to analyze, assess the accuracy of sources, and develop logical arguments. This is demonstrated by the increase in the average critical thinking test score from cycle I to cycle II and the increase in the gain score from the low to medium-high category.
2. The integration of interactive digital media strengthens student participation and motivation in learning.The use of platforms such as Google Classroom, Padlet, and Canva Edu encourages collaboration, creativity, and a sense of responsibility in completing digital assignments. These activities enrich the learning experience and facilitate the development of reflective thinking among students.
3. The role of teachers as digital literacy facilitators is a key factor in success. Teachers play a role in guiding students to use digital sources ethically, assess the validity of information, and relate it to learning materials. With appropriate guidance, students demonstrate improved abilities to identify information bias and formulate evidence-based conclusions.
4. The main obstacles to implementation are limited infrastructure and basic digital literacy among some students. However, these obstacles can be overcome with gradual guidance and the use of simple, easily accessible digital media.

Overall, the implementation of digital literacy-based learning not only improves critical thinking skills but also fosters a culture of active and collaborative learning within the madrasah environment.

5.2 Recommendations

Based on the research results and findings, the researcher offers the following recommendations:

1. For Teachers:
Teachers are expected to continue developing digital literacy competencies and designing learning activities that require students to engage in higher-order thinking skills. Teachers also need to provide explicit guidance in evaluating digital sources so that students become not just users but also critical evaluators of information.

2. For Educational Units (MTsN 1 Palu):
Madrasahs need to support the implementation of digital literacy-based learning by providing stable internet access, adequate ICT devices, and ongoing training for teachers. Digital literacy activities can be systematically integrated into school literacy programs.

3. For Students:

Students are expected to be able to utilize digital sources wisely, critically, and ethically. Digital literacy learning should not only be used to seek information, but also to hone reflective and argumentative thinking skills.

4. For Future Researchers:
It is recommended to conduct further research using a quasi-experimental or mixed methods approach to measure the effect of digital literacy on critical thinking in other subjects. In addition, further research can explore the integration of Artificial Intelligence (AI) in madrasa learning as a medium for developing more contextual critical thinking.

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