EXPLORING DIGITAL LITERACY USAGE FOR SELF-DIRECTED LEARNING: RURAL ADOLESCENTS' PERSPECTIVES

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Abstract

This study aims to address this gap by examining rural adolescents' perspectives on the use of digital literacy in self-directed learning and its potential to transform rural education. The research employed a qualitative approach and involved in-depth interviews with thirty rural adolescents. The findings indicate that rural adolescents perceive themselves to have good digital literacy skills and actively use digital media for learning. They recognise the benefits of digital literacy in accessing information, collaborating with others, and overcoming learning barriers. The study underscores the significance of digital literacy in empowering rural adolescents to take charge of their education and navigate the digital landscape. These findings have implications for educators and policymakers in promoting digital literacy in rural areas to ensure equitable access to high-quality education. Future research should further investigate the intersection of digital literacy and self-directed learning among adolescents to enhance educational outcomes in an increasingly digital world.
Keywords: Rural adolescents, Digital Literacy, self-directed learning, Digital Divide

Abstrak

Penelitian ini bertujuan untuk mengatasi kesenjangan ini dengan memeriksa perspektif remaja pedesaan tentang penggunaan literasi digital dalam pembelajaran mandiri dan potensinya untuk mengubah pendidikan pedesaan. Penelitian ini menggunakan pendekatan kualitatif dan melibatkan wawancara mendalam dengan tiga puluh remaja pedesaan. Temuan menunjukkan bahwa remaja pedesaan menganggap dirinya memiliki keterampilan literasi digital yang baik dan aktif menggunakan media digital untuk belajar. Mereka menyadari manfaat literasi digital dalam mengakses informasi, berkolaborasi dengan orang lain, dan mengatasi hambatan belajar. Studi ini menggarisbawahi pentingnya literasi digital dalam memberdayakan remaja pedesaan untuk bertanggung jawab atas pendidikan mereka dan menavigasi lanskap digital. Temuan ini memiliki implikasi bagi pendidik dan pembuat kebijakan dalam mempromosikan literasi digital di daerah pedesaan untuk

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memastikan akses yang adil ke pendidikan berkualitas tinggi. Penelitian di masa depan harus menyelidiki lebih lanjut persimpangan literasi digital dan pembelajaran mandiri di kalangan remaja untuk meningkatkan hasil pendidikan di dunia yang semakin digital

Kata Kunci: Remaja Di Pedesaan, Literasi Digital, Pembelajaran Mandiri, Kesenjangan Digital

The accelerated development of the digital age has integrated technology into daily life and education. The benefits of this digital integration are significant, particularly in the context of self-directed learning, where digital literacy can considerably empower individuals to direct their educational paths (Hanik, 2020; Salim et al., 2020). This change in learning dynamics is especially notable among adolescents living in rural areas, who frequently encounter obstacles such as limited access to resources and poor instruction (Chetty et al., 2018; King, 2021; Nurhayati et al., 2021; Nurhayati & Musa, 2020; Ruecker, 2022; Setiadi et al., 2023). However, for adolescents to completely benefit from technology in self-directed learning, they must possess strong digital literacy skills (Asnawati et al., 2023; Candrasari et al., 2020; Hasanah & Sukri, 2023; Liansari & Nuroh, 2020; Nurhayati & Falah, 2020; Prihatiningsih et al., 2023; Salim et al., 2020). While some studies have examined the impact of digital literacy on various aspects of life in rural areas, such as renewable energy consumption, adolescents' use of digital literacy for self-directed learning is largely unexplored. Digital literacy refers to the ability to utilise digital tools, gain access to digital resources, and facilitate the sharing of information. The concept was first proposed by Gilster in 1997 and has since been refined and expanded by multiple researchers and organisations, including UNESCO, which in 2018 published the Global Framework for Digital Literacy (Gilster & Watson, 1997; Pangrazio et al., 2020; Shepherd & Henderson, 2019). In the current educational environment, the ability to comprehend, critique, and communicate digital information is essential. Digital literacy empowers learners with the skills necessary to access, evaluate, and utilise online resources effectively in the context of self-directed learning (Nurhayati et al., 2021, 2022; Nurhayati & Musa, 2020; Setiadi et al., 2023). However, this potential remains largely underutilised, particularly among adolescents from rural areas. While research on the impact of digital literacy on various aspects of life in rural areas, such as green energy consumption, is expanding, the potential role of digital literacy in enhancing self-directed learning among adolescents in these areas remains unexplored.

Self-directed learning, on the other hand, is frequently defined as the capacity to assume responsibility for learning materials(Curran et al., 2019; Hanik, 2020). A study conducted at the University of Lampung demonstrated a positive and statistically significant effect of self-

directed learning on students' digital literacy levels, with a contribution of 54.80%, indicating that the higher a student's self-directed learning score, the better their digital literacy skills will be(Curran et al., 2019). Digital literacy, which was first proposed by Gilster in 1997, is the ability to comprehend the digital resources presented by digital media and the underlying significance of this information. This concept has been refined and expanded over time to include five dimensions: "picture-visual literacy," "recreation literacy," "classified thinking literacy," "information literacy," and "social-emotional literacy" (Falloon, 2020; Feerrar, 2019; Gilster & Watson, 1997; Nedungadi et al., 2018). A more recent viewpoint suggests that the digital literacy framework for rural residents should include six additional dimensions: information, health, finances, digital governance, digital security, and online education(Feerrar, 2019; Neumann et al., 2017; Novanana, 2022; Silvana et al., 2020).

Unfortunately, the research conducted to date has had some limitations. The previous study offered a glimpse into the connection between self-directed learning and digital literacy, but it did not concentrate on adolescents (Hanik, 2020). More research could shed light on how these two concepts interact with adolescents and how they can be used to enhance digital-based learning for this demographic(Curran et al., 2019).

It would be beneficial to continue investigating these two fields and their intersection in the future, with a particular emphasis on adolescents. Understanding how to best promote digital literacy and self-directed learning among adolescents may have significant educational and societal implications, given the increasingly digital nature of our world and the transition towards online learning.

This paper seeks to bridge this gap by examining the rural adolescents' perspective on the use of digital literacy for their own digital based self-directed learning. In addition, this research investigated the potential for digital literacy to transform rural education, offering adolescents new academic development and achievement opportunities. This research contributed to the corpus of knowledge on digital literacy and its role in self-directed learning by examining these relationships. This study may also provide educators and policymakers with insights on how to use digital literacy as an instrument to improve education in rural areas, thereby promoting equitable access to high-quality education for all rural citizens.

METHOD

The research method employed is qualitative research, which describes symptoms or situations using words, symbols, tables, and images. The methodology employed is descriptive. Qualitative approach was used to reveal the overall symptoms that emerge using researchers as instruments and direct participation in the research. The subjects of this research were thirty rural adolescents. This study was conducted in rural communities in

Patrol and Sukamulya Village, West Bandung regency.

A total of 27 rural adolescents consent to voluntarily participate in the research study. The age of the respondents is ranging from 13-17 years old. Most of them are still students in junior high school. In recruiting those respondents, the focus was on identifying respondents whose lived in rural area in West Bandung regency. In-depth interview guide was used to obtain qualitative data. The interviews were semi-structured following the research questions and included open-ended questions as well as "probe" questions. The in-depth interview guide was used to elicit information on the use of digital literacyin digital based self-directed learning. Besides the interviews, the data also gathered from direct observations and documents study. The data then analyzed using triangulation techniques.

RESULTS AND DISCUSSION

From the interview results, majority of the rural adolescents perceive that they have good enough level on digital literacy. Their perceptions can be detailed in a figure 1 below.
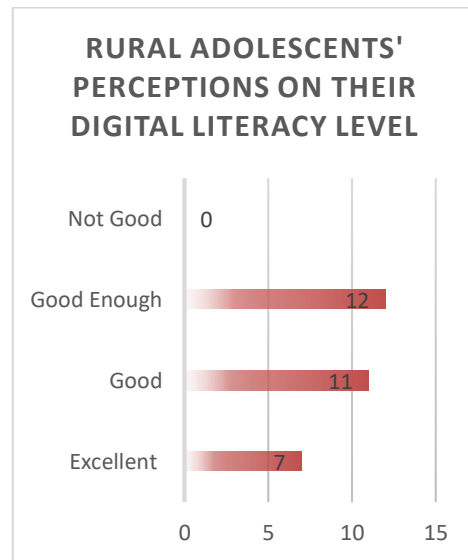

Figure 1.
Rural Adolescents' Perceptions on Their Digital Literacy Level
Source: empirical data 2023

Also From the interview results, 98% of rural adolescents used digital media such as smartphone everyday. Only one respondent used smartphone once in a week due to the availability of the smartphone in the family. They also used digital literacy skill for different activities that can be drawn in a figure 2 below.
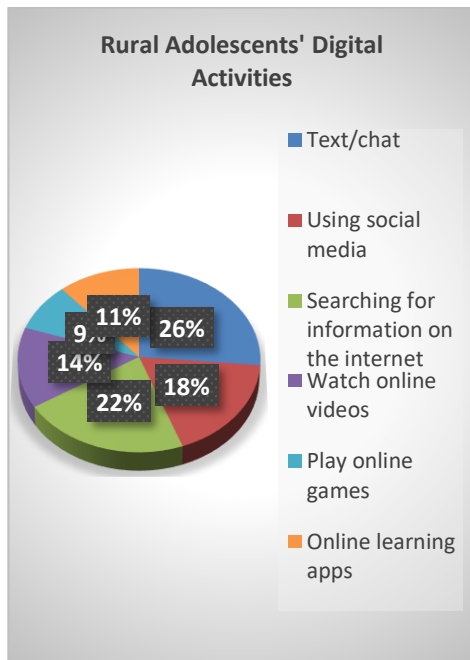
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Figure 2
Rural Adolescents' Digital Activities
Source: Empirical Data

On the frequency of digital literacy used for self directed learning activities such as accessing youtube learning videos and courses the data can be shown in the diagram below.
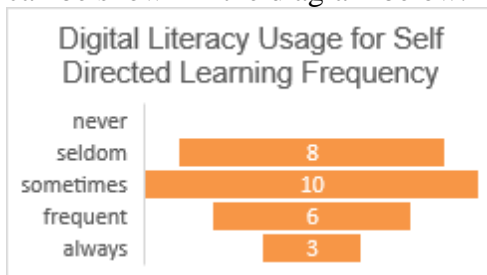

Figure 3
Frequency of Rural Adolescents' Digital literacy usage for Self Directed Learning
Source: Empirical Data

On the benefit of digital literacy skill that the rural adolescents possess in the context of self-directed learning, their perceptions are summarized in the table 1 below.

Table 1
Adolescents' Perceptions on the Benefit of Digital Literacy Skill for Self-Directed Learning
Source: empirical data

No.	Benefits of Digital Literacy Skill	Category
1	Ability to document activities	-
2	Facilitates online communication	-
3	Ease of providing information and news	-
4	Alleviates boredom	-
5	Stress reduction through entertainment-seeking	-
6	Yields satisfactory outcomes	-
7	Access to important information and communication with others	-
8	Easy access to answers through the internet	Self-Directed Learning
9	Personal improvement	Self-Directed Learning
10	Eases the search for materials and learning resources, allows access to learning during illness or absence from school	Self-Directed Learning
11	Ability to search for information online	Self-Directed Learning
12	Highly beneficial in solving difficult academic problems	Self-Directed Learning
13	Ability to search for and evaluate information online	Self-Directed Learning
14	Ability to find solutions to questions	Self-Directed Learning
15	Utilization of Google for completing academic assignments	Self-Directed Learning

16	Ability to search for information	Self-Directed Learning
17	Assistance in the learning process	Self-Directed Learning
18	Discovery of learning opportunities on social media	Self-Directed Learning
19	Facilitates personal learning	Self-Directed Learning
20	Awareness of unknown knowledge and enhancement of understanding	Self-Directed Learning
21	Incremental understanding	Self-Directed Learning
22	Ease of technology usage and information retrieval	Self-Directed Learning
23	Enhances learning and facilitates searching for educational information	Self-Directed Learning
24	Utilization of digital applications for school-related learning	Self-Directed Learning
25	Acquisition of new knowledge and understanding through internet-based learning	Self-Directed Learning

The following summary of findings can be derived from the data obtained from interviews regarding rural adolescents' perceptions of the essential digital literacy skills to be mastered. In the category of Information Retrieval and Evaluation, 19 out of 25 adolescents deemed this talent essential, while 6 held the opposite opinion. 17 out of the total 25 adolescents viewed Device and Digital Application Usage as an essential skill, while 8 had a different opinion. 15 adolescents viewed Communication and Collaboration via Digital Media as a vital skill, while 10 held the opposite view. Understanding and Applying Digital Ethics was deemed essential by a minority of adolescents (6), while the majority (19) held the opposite opinion. Regarding Online Security and Privacy, only five adolescents believed this skill to be essential, whereas twenty adolescents held a contrary opinion. Regarding Problem Solving Using Digital Technology, only six of the twenty-nine adolescents surveyed deemed this skill essential, whereas the remaining 19 did not. Perceptions of the significance of digital literacy skills vary significantly among rural adolescents. Most adolescents deemed skills such as information retrieval, device and digital application utilisation, and communication and collaboration via digital media to be essential. However, rural adolescents had more divergent perceptions regarding skills such as comprehending and applying digital ethics, maintaining online security and privacy, and problem-solving with digital technology.

The research findings regarding rural adolescents' perceptions of digital literacy skills are highly relevant to self-directed learning. Initially, most rural adolescents believe that their digital literacy skills are adequate. This is in contrast with previous researchs that reported the lack of digital literacy especially regarding youth's digital literacy (Nurhayati et al., 2021; Nurhayati & Falah, 2020; Nurhayati & Musa, 2020; Saryono et al., 2023; Setiadi et al., 2023). This self-perception is essential for self-directed learning

because it demonstrates confidence and belief in one's ability to independently navigate digital resources and engage in self-directed learning activities (Curran et al., 2019; Hanik, 2020). To be successful in lifelong learning, individuals must possess a variety of competencies. These competencies include learners assuming greater responsibility and initiative to organise their own learning processes, from the recognition of learning needs to the evaluation of learning outcomes individually or in a group, which refers to self-direction in a learning process (Nailah Zamnah & Meta Ruswana, 2018; Sumuer, 2018). Self-directed learning (SDL) is considered both a prerequisite and an outcome of lifelong learning. Individuals can take charge of their own education by determining what and how to learn, with or without assistance from others.(Hanik, 2020; Purbo Waseso & Irvan Fuadi, n.d.)

Second, the high prevalence of digital media usage among rural adolescents demonstrates their familiarity and confidence with digital technologies. This familiarity with digital tools and platforms lays the groundwork for self-directed learning, as it enables students to access a vast array of online resources, educational content, and learning platforms(He & Li, 2019; Levy, 2017; Liu et al., 2023).

The findings also emphasise the specific digital activities rural adolescents engage in for self-directed learning, such as accessing YouTube learning videos, enrolling in online courses, and utilising digital applications for school-related learning. This demonstrates their active participation in locating and employing digital resources to advance their own learning processes. This finding is in line with the previous research that found digital competence has a positive impact on learning process(He & Li, 2019; Liu et al., 2023)

In addition, the perceived benefits of digital literacy skills for self-directed learning, as shown in Table 1, highlight the significance of these skills. Adolescents in rural areas recognise that digital literacy skills enhance their ability to access information, discover answers to questions, and engage in online collaboration and communication. In addition, they acknowledge the simplicity of technology use and information retrieval, as well as the enhancements to learning and personal growth that come with digital literacy.

The findings also indicate that rural adolescents value digital literacy skills for circumventing learning barriers, such as accessing learning materials during illness or absence from school (Al-Qallaf & Al-Mutairi, 2016; Fallis, 2013; Jang et al., 2021). This demonstrates the potential for digital literacy to support and enhance self-directed learning in non-traditional learning environments or situations.

Overall, the findings highlight the significance of digital literacy skills for empowering rural adolescents' self-directed learning journeys (Munifah & Purwaningrum, 2022; Rahmah, 2015; Traxler, 2018). By possessing and utilising these skills effectively, rural adolescents can take charge of their own education, gain access to an abundance of digital

resources, collaborate with others, and perpetually expand their knowledge and abilities. The findings suggest that nurturing digital literacy skills among adolescents in rural areas can improve their ability to engage in self-directed learning and navigate the digital landscape with confidence and competence (Hanelahi & Atmaja, 2020; Mehrvarz et al., 2021; Pischetola, 2011).

CONCLUSION AND RECOMMENDATION
Conclusion

This study has cast light on the perceptions of rural adolescents concerning digital literacy skills and their relevance to self-directed learning. Most rural adolescents believe they have an adequate level of digital literacy and actively engage in digital activities for self-directed learning purposes. Most rural adolescents consider skills such as information retrieval, device and digital application utilisation, and communication and collaboration via digital media to be essential for self-directed learning. There are, however, divergent perceptions regarding the competencies of understanding and employing digital ethics, maintaining online security and privacy, and problem-solving with digital technology.The significance of digital literacy skills in empowering rural adolescents to take charge of their own education is highlighted by these research findings, which are highly relevant to the context of self-directed learning. The familiarity and use of digital media by adolescents in rural areas enables them to access a vast array of digital resources and participate in online learning

activities. The perceived benefits of digital literacy skills, such as easy access to information, personal development, and the ability to discover answers to questions, highlight their importance in promoting self-directed learning.

These results add to the existing literature on digital literacy and self-directed learning, particularly in the context of rural education. They emphasise the need to foster digital literacy among adolescents in rural areas to improve their educational opportunities and achievements. These findings can be used by educators and policymakers to develop strategies and initiatives that effectively integrate digital literacy into the learning experiences of rural adolescents, thereby ensuring equitable access to high-quality education. It is recommended that additional research be conducted in this area, with a particular emphasis on adolescents and their interactions with digital literacy and self-directed learning. Understanding how to promote and enhance digital literacy and self-directed learning among adolescents in rural areas can have significant implications for their educational outcomes and overall development in our increasingly digital world.

Recommendation

The inclusion of digital literacy education in the curriculum should be a top priority for education systems, notably in rural areas. This should emphasise the development of information retrieval, digital communication, critical evaluation of online resources, and online privacy

and security skills. Adolescents in rural areas will be able to engage in self-directed learning and navigate the digital landscape more effectively if they receive a comprehensive digital literacy education. Efforts should also be made to enhance the digital infrastructure in rural areas, ensuring that everyone has reliable and affordable internet access. This will allow rural adolescents to utilise digital resources to their maximum potential and engage in unrestricted self-directed learning activities. Governments, educational institutions, and technology providers must collaborate to bridge the digital divide and create equal opportunities for rural students.

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