

DIGITAL LITERACY AMONG THE ELDERLY: LITERATURE REVIEW AND IMPLEMENTATION IN COMMUNITY SERVICE

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Abstract

The literature review on digital literacy among the elderly highlights the barriers faced by this age group in adopting digital technology, including access, understanding, and confidence. The implementation of the community service program shows concrete steps to improve the digital literacy of the elderly, such as hands-on training, partnership building, awareness campaigns, and the creation of a supportive physical environment. Periodic evaluation, documentation of results, and cross-sector collaboration are key in maintaining the sustainability of these programs. The implication of this study is that efforts to improve digital literacy among older adults have the potential to have a positive impact on older adults' quality of life and enable them to stay connected to the digital world more effectively.

Keywords: Digital Literacy, Elderly, Implementation in Community Service

Introduction

The development of technology has brought significant impacts in various aspects of human life. Technological breakthroughs such as the internet, artificial intelligence, Internet of Things (IoT), and mobile technology have changed the way humans communicate, work, learn, and interact with the surrounding environment (Sitopu et al., 2024). Advances in information and communication technology (ICT) have also enabled easier and faster access to information from various parts of the world, and facilitated efficient and real-time data exchange (Hairiyanto et al., 2024).

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The use of digital technologies such as smartphones, computers and the internet has become an integral part of modern society's daily life. However, in this context, the elderly are often left behind due to their limitations in keeping up with these technological developments (Peralta & Arps, 2021).

The elderly are a technologically vulnerable group and often experience difficulties in adapting digital technologies, such as operating electronic devices, using applications, or understanding information on the internet (Amalia et al., 2023). This limitation can be an obstacle for the elderly in utilizing the potential offered by digital technology in various aspects of life, such as communication, information, and social participation. In addition, the inability to understand or adapt to the development of digital technology also makes the elderly vulnerable to false or misleading information spread on the internet (Mayasari et al., 2022). This emphasizes the importance of empowering digital literacy among the elderly so that they are able to overcome these barriers and stay connected to the evolving digital world (Rahmawati, 2021).

To increase digital inclusion and strengthen older adults' participation in the technological age, efforts are needed to support them in acquiring the necessary digital skills. Comprehensive approaches, such as specialized digital literacy training programs for the elderly, can help reduce the digital divide among them (Yu & Wang, 2024). In addition, incorporating elder-friendly technologies and learning approaches tailored to their needs can have a positive impact on strengthening their ability to cope with digital technologies. Thus, systematic efforts to improve the digital literacy of older adults can ensure that they remain engaged, connected and benefit from advances in digital technology (Casanova, 2021).

Therefore, research on digital literacy among older adults has important relevance and urgency. With a better understanding of their digital literacy levels and the barriers they face, appropriate strategies and programs can be developed to improve digital literacy among the elderly (Utama et al., 2023); (Vavuris, 2021). This research also aims to encourage community service that focuses on providing digital literacy training to the elderly, so that they can keep up with the changing times and stay connected to the digital world.

Thus, a deeper understanding of digital literacy among the elderly will open up opportunities to increase their participation in the digital age, improve their quality of life, and encourage better digital inclusion in society.

Research Methods

The study conducted in this research uses the literature research method. The literature research method is an important approach in the academic world to investigate and analyze certain topics by relying on existing written sources. In practice, researchers use various literature sources such as scientific journals, books, and articles to gain deeper insight into a research topic (Heriyanto, 2018); (Rizkykawasati, 2019).

Results and Discussion

Digital Literacy

Digital literacy is a person's ability to use digital technology effectively and responsibly. In today's digital era, digital literacy is very important because almost all aspects of daily life involve technology. Digital literacy skills include knowledge of hardware and software, as well as the ability to assess information found online (Vavuris, 2021). A person who has good digital literacy is able to use technology to obtain information, communicate with others, and manage data efficiently (Syaifudin et al., 2022).

One important aspect of digital literacy is the ability to sort out valid and accurate information from the internet. With the rise of false information or hoaxes in the digital world, the ability to identify reliable sources of information is needed (Carl & Worsfold, 2021). In addition, digital literacy also includes skills to protect oneself from online security threats, such as phishing, hacking, or cyber bullying. With a good understanding of technology use and the associated risks, one can maintain the privacy and security of their personal data when interacting in the digital world (Parianom et al., 2022).

In this digital era, digital literacy also involves the skills to collaborate online with others, both in professional and social contexts. The ability to use various online communication and collaboration platforms, such as email, social media or collaborative apps, is important in an increasingly digitally connected world of work. By understanding how to work virtually and collaborate with people from different backgrounds, a person with good digital literacy can increase productivity and work continuity in an ever-evolving digital world (Kim, 2022).

Digital literacy also includes the ability to exploit various digital resources in the process of learning and self-development. With good digital literacy, one can access various online learning platforms, online courses or other digital information

sources to improve their knowledge and skills. This allows one to continue learning and developing in the rapidly changing digital era (Park, 2023).

In conclusion, digital literacy is an important key in facing the challenges of an ever-evolving digital world. By having good digital literacy skills, a person is not only able to adapt to technological changes, but can also utilize the potential of technology for personal and professional interests. Therefore, it is important for every individual to continuously improve their digital literacy skills in order to optimize the benefits of digital technology and better face the challenges of the digital world.

The Importance of Digital Literacy for the Elderly

Digital literacy is important for older adults in this digital era. With technological advances, many aspects of daily life, including access to information, health services and social interactions, are increasingly shifting to digital platforms (Permana et al., 2022). Therefore, older adults who have good digital literacy will be able to benefit greatly from the easy access to information and services offered by technology.

The importance of digital literacy for the elderly is also related to access to health services. During this pandemic, many health services have shifted to online platforms, including medical consultations, drug ordering, and health monitoring. With digital literacy, older adults can utilize technology to stay connected to health services without having to leave home, which can be crucial in ensuring their health is maintained (Kartikawangi, 2020).

In addition, digital literacy also allows older adults to stay connected with their family, friends and community, especially in situations where physical encounters may be limited. Through the use of social media, messaging apps and video platforms, older adults can stay engaged in social life and get emotional support and information from those closest to them (Park, 2023).

Finally, digital literacy is also important in enabling older adults to remain engaged in learning and self-development. With access to various information sources and online learning platforms, older adults can continue to develop their knowledge and skills, which can improve their quality of life and provide a positive sense of achievement. Thus, digital literacy is important for older adults to stay connected, healthy and thrive in this digital era (Septiari & Suwandi, 2024).

Challenges and Barriers in Improving Elderly Digital Literacy

In an effort to improve the digital literacy of the elderly, there are several challenges and obstacles that need to be considered. First, some older adults may find it difficult to operate digital technology due to a lack of experience and knowledge about technology. This may affect their motivation to learn and improve digital skills (Kusuma et al., 2022).

Second, cost and accessibility may be an obstacle for some older adults. Some older people may not have access to digital technology devices or choose not to purchase due to factors including lack of income or the need for more pressing needs (Fauziah & Aliza, 2023).

Third, health issues such as vision and hearing problems, arthritis, and motor impairments can affect the ability of older people to use digital devices. This can make them feel frustrated and unmotivated to learn more about digital technology (Hani & Mendrofa, 2023).

Fourth, it is difficult to overcome older people's fears and concerns about digital technology, such as worries about online scams, privacy and security, and confusion about the language of digital technology. Specific strategies and approaches are needed to help them overcome this, including specialized training and ongoing support from family and society (Adhimursandi et al., 2024).

Although there are many challenges and obstacles in improving the digital literacy of the elderly, with the right support and efforts from the family, community and government, it is expected to help improve the digital abilities and skills of the elderly for the better and improve their quality of life (Harisanty et al., 2021).

In addition, an elder-friendly approach and providing easily accessible resources to learn about digital technology will also help overcome these barriers. This could include the provision of hands-on training, online tutorials, or community programs designed specifically for older adults (Wambua et al., 2023).

Efforts are also needed to promote the importance of digital literacy among older adults and change the perception that they are incapable of mastering technology. With increased awareness and support, older adults will feel more motivated to learn digital skills (Eckersley, 2022).

In conclusion, improving the digital literacy of older adults has real challenges, but with the right approach, it can be done. This will provide great benefits to older people, allowing them to stay connected with their family and friends, enjoy access to health services and information, and open up new

opportunities to learn and participate in social and economic activities. Supporting older adults in meeting the challenges of digital literacy is an important step in ensuring they remain active and engaged in an increasingly technology-dependent world.

Implementation in Community Service

In the context of community service, implementation to improve the digital literacy of the elderly can be done through various activities and initiatives. First, training or workshops can be organized directly in the elderly community. Participants can be invited to learn about the use of digital devices, internet navigation, and basic skills needed to participate in the digital world (Eryansyah et al., 2020).

Secondly, a partnership program can be established between students, academics or professionals in the field of technology and the elderly community. They can provide regular guidance, training or mentoring sessions to help older people overcome barriers and challenges in understanding digital technology (Enescu & Szeles, 2024).

Third, a collaborative approach with government and non-profit organizations can also be involved in conducting awareness campaigns on the importance of digital literacy for the elderly. This can be done by providing training programs and supporting infrastructure that supports technology accessibility for the elderly (Rood et al., 2023).

Fourth, creating a supportive physical environment is also an important step. For example, setting up an elderly-friendly community technology center, equipped with equipment that is comfortable for them. By bringing digital technology physically closer to the elderly, it can also help facilitate their access and learning (Cherif, 2022).

With proper implementation in community service, it is expected to facilitate the process of improving the digital literacy of the elderly effectively and sustainably, so that they can take full advantage of technological advances and remain engaged in an increasingly digitized society.

In this series of implementation, periodic evaluation will be an important part to ensure the effectiveness and relevance of the programs conducted. Through evaluation, we can get feedback from older adults themselves and adjust the approaches used to better suit their needs and preferences (Coleman & Arxer, 2021).

In addition, documenting and disseminating the results of these programs would also be beneficial. This can provide information and inspiration for related parties, as well as provide impetus for the development of similar programs elsewhere (Plaza-Zamora et al., 2020).

By involving various parties including the elderly, families, communities and related agencies, it is hoped that these programs can make a meaningful contribution to improving the digital literacy of the elderly as a whole. Over time, it is hoped that older people will become more skilled and confident in using digital technology, so that they can stay connected, engaged and enjoy the benefits of an ever-evolving digital world.

Conclusion

Studies on digital literacy among older adults highlight the importance of understanding and overcoming the barriers faced by this age group in adopting digital technologies. Based on the literature review, it was found that older adults often face challenges in terms of access, understanding and confidence when it comes to using digital technologies. This emphasizes the need for an elder-friendly approach and concrete efforts to improve their digital understanding and skills.

In terms of implementation in community service, concrete steps can be taken to improve the digital literacy of the elderly. These initiatives can include organizing hands-on training, building partnership programs with relevant parties, awareness campaigns, and creating a supportive physical environment. All these efforts aim to empower the elderly to understand and use digital technology more effectively.

Periodic evaluation will be an important part of this implementation process, so that programs can be tailored to the needs and preferences of older adults. Meanwhile, the documentation and dissemination of the results of this program will provide information and inspiration for related parties, as well as build a foundation for the development of similar programs elsewhere.

By involving various parties and with continued support, it is hoped that these programs can make a meaningful contribution to improving the digital literacy of the elderly as a whole. This implementation is expected to help older adults stay connected, engaged and enjoy the benefits of an increasingly digitally connected life.

The conclusion of this summary of research on digital literacy among older adults shows the importance of efforts to improve their digital understanding and

skills. Elderly people often face challenges in adopting digital technology, but with a friendly approach and various implementation programs initiated, it is expected that they can benefit significantly. Regular evaluation, documentation of results, and cross-sector collaboration are key to maintaining the sustainability of these programs, as well as ensuring that the elderly can stay connected to the digital world and experience the maximum benefits. Thus, efforts to improve digital literacy among the elderly are very relevant and have the potential to have a positive impact in advancing their overall quality of life.

References

- Adhimursandi, D., Azis, M., Heksarini, A., & Asnawati, A. (2024). Socialization of Digital Marketing and Fintech Literacy for Micro & Small Businesses in Samarinda City. *Journal of Community Service and Society Empowerment*, 2(2), 188–195. <https://doi.org/10.59653/jcsse.v2i02.607>
- Amalia, A. R., Hasanah, N., & Padoli, P. (2023). AKTIVITAS FISIK PADA LANSIA HIPERTENSI DI POSYANDU LANSIA KELURAHAN PACAR KEMBANG SURABAYA. *JURNAL KEPERAWATAN*, 16(2). <https://doi.org/10.36568/nersbaya.v16i2.48>
- Carl, M., & Worsfold, L. (2021). The implementation and embedding of digital skills and digital literacy into the curriculum considering the Covid-19 pandemic and the new SQE. *Journal of Information Literacy*, 15(3). <https://doi.org/10.11645/15.3.3007>
- Casanova, F. O. (2021). Unpacking culture. *Community-Based Service Delivery*, Query date: 2024-06-06 10:36:37, 28–39. <https://doi.org/10.4324/9781003020783-31a>
- Cherif, S. (2022). P26 Technology: Creating a digital front door for sexual health provision during COVID-19 through the implementation of a remote clinical images service in a community clinic. *Abstracts*, Query date: 2024-06-06 10:36:37. <https://doi.org/10.1136/sextrans-bashh-2022.73>
- Coleman, J. E., & Arxer, S. L. (2021). Methodological reflections on research in a community service organization. *Community-Based Service Delivery*, Query date: 2024-06-06 10:36:37, 55–67. <https://doi.org/10.4324/9781003020783-51a>
- Eckersley, N. (2022). Review of the Maryland Department of Labor’s Adult Education Digital Literacy Framework for Adult Learners: Instructor Implementation Guide. *Adult Literacy Education: The International Journal of Literacy, Language, and Numeracy*, 4(3), 63–65. <https://doi.org/10.35847/neckersley.4.3.63>
- Enescu, A.-G., & Szeles, M. R. (2024). Portfolio Allocation, Risk Aversion, and Digital Literacy Among the European Elderly. *Economics*, 18(1). <https://doi.org/10.1515/econ-2022-0072>

- Eryansyah, E., Petrus, I., Indrawati, S., & Erenalida, E. (2020). Pre-Service EFL Teachers' Digital Literacy and Factors Affecting Digital Literacy Development. *Indonesian Research Journal in Education |IRJE|*, Query date: 2024-06-06 10:36:37, 402–412. <https://doi.org/10.22437/irje.v4i2.10892>
- Fauziah, K., & Aliza, N. F. (2023). Strengthening Family Literacy Through Gerakan Ibu Mendongeng. *Proceeding International Conference of Community Service*, 1(2). <https://doi.org/10.18196/iccs.v1i2.104>
- Hairiyanto, Sartika, E., Fransiska, F. W., & Aslan. (2024). UNDERSTANDING THE STUDENTS' ENGLISH LEARNING ACHIEVEMENT AND HOME ENVIRONMENT SUPPORTS DURING SCHOOL CLOSURE TO RESPOND TO PANDEMIC AT PRIVATE MADRASAH TSANAWIYAH AT-TAKWA SAMBAS. *International Journal of Teaching and Learning*, 2(4), Article 4.
- Hani, U., & Mendrofa, F. A. M. (2023). Strengthening community empowerment for elderly health service in new normal by Pol-Sadar (Integrated Health Service Post for Elderly). *Journal of Community Empowerment for Health*, 6(2), 64–64. <https://doi.org/10.22146/jcoemph.66506>
- Harisanty, D., Srirahayu, D. P., Anna, N. E. V., Mannan, E. F., Anugrah, E. P., Nurpratama, M. R., & Dina, N. Z. (2021). SOCIALIZATION OF DIGITAL LITERACY EDUCATION TO ANTICIPATE HOAX NEWS. *Darmabakti Cendekia: Journal of Community Service and Engagements*, 3(1), 33–33. <https://doi.org/10.20473/dc.v3.i1.2021.33-37>
- Heriyanto, H. (2018). Thematic Analysis sebagai Metode Menganalisa Data untuk Penelitian Kualitatif. *Anuva*, 2(3), 317–317. <https://doi.org/10.14710/anuva.2.3.317-324>
- Kartikawangi, D. (2020). The 2011-2019 Media Literacy Improvement: Strategy and Implementation of Sustainable Community Service Program. *MITRA: Jurnal Pemberdayaan Masyarakat*, 4(1), 71–81. <https://doi.org/10.25170/mitra.v4i1.1075>
- Kim, J. (2022). The Effect of the Digital Literacy on Life Satisfaction and Depression of Elderly Living in Jeju: A Comparison of Seoul Province. *Journal of Community Welfare*, 83(Query date: 2024-06-06 10:36:37), 1–33. <https://doi.org/10.15300/jcw.2022.83.4.1>
- Kusuma, C. S. D., Muslikhah, R. I., & Suhartanto. (2022). Strengthening of Digital Literacy to Support Student Community Service to Prevent Hoax and Cybercrime. *Proceedings of the 9th International Conference on Education Research, and Innovation (ICERI 2021)*, Query date: 2024-06-06 10:36:37, 477–487. https://doi.org/10.2991/978-2-494069-67-1_54
- Mayasari, E., Hayu, R. E., & Sumandar. (2022). ANALISIS PEMANFAATAN BINA KELUARGA LANSIA (BKL) OLEH KELUARGA YANG MEMPUNYAI LANSIA GUNA MENCIPTAKAN LANSIA TANGGUH. *Al-Tamimi Kesmas*:

- Jurnal Ilmu Kesehatan Masyarakat (Journal of Public Health Sciences)*, 11(1), 51–57. <https://doi.org/10.35328/kesmas.v11i1.2224>
- Parianom, R., J. I. A., & Desmintari, D. (2022). The Impact of Digital Technology Literacy and LifeSkills On Poverty Reduction. *Devotion : Journal of Research and Community Service*, 3(12), 2002–2007. <https://doi.org/10.36418/dev.v3i12.247>
- Park, S. H. (2023). The Effect of Pre-service Teachers' Digital Literacy Attitude on Digital Literacy Competency. *Asia-Pacific Journal of Convergent Research Interchange*, 9(3), 561–570. <https://doi.org/10.47116/apjcri.2023.03.44>
- Peralta, K. J., & Arps, S. (2021). A community does not exist. *Community-Based Service Delivery, Query date: 2024-06-06 10:36:37*, 76–91. <https://doi.org/10.4324/9781003020783-71a>
- Permana, P. S., Sesriyani, L., Prasetyawan, E., Anwar, S., Rusmaini, R., & Zubaidah, S. (2022). The Analysis of Digital Literacy of Teachers in PGRI 363 Junior High School in Pondok Petir. *Journal of Community Research and Service*, 6(2), 179–179. <https://doi.org/10.24114/jcrs.v6i2.37488>
- Plaza-Zamora, J., Legaz, I., Osuna, E., & Pérez-Cárceles, M. D. (2020). *Medication literacy in elderly patients with chronic diseases: A community pharmacy perspective. Query date: 2024-06-06 10:36:37*. <https://doi.org/10.21203/rs.2.20968/v1>
- Rahmawati, R. (2021). GAMBARAN PENGETAHUAN DAN SIKAP YANG MENYEBABKAN RENDAHNYA KUNJUNGAN LANSIA DI POSYANDU LANSIA SALO TIMUR. *PREPOTIF : Jurnal Kesehatan Masyarakat*, 5(2), 1126–1132. <https://doi.org/10.31004/prepotif.v5i2.2442>
- Rizkykawasati. (2019). *Teknik Pengumpulan Data Metode Kualitatif. Query date: 2024-05-25 20:59:55*. <https://doi.org/10.31227/osf.io/cy9de>
- Rood, J., Walker, P. C., & Moser, L. R. (2023). *Patient Perspective and Impact on Implementation of Health Literacy Universal Precautions at a Program for All-Inclusive Care for the Elderly. Query date: 2024-06-06 10:36:37*. <https://doi.org/10.2139/ssrn.4442234>
- Septiari, W. D., & Suwandi, S. (2024). Systematic Review of Digital Literacy in the Implementation of Indonesian Language Learning. *Devotion : Journal of Research and Community Service*, 5(1), 36–47. <https://doi.org/10.59188/devotion.v5i1.672>
- Sitopu, J. W., Khairani, M., Roza, M., Judijanto, L., & Aslan, A. (2024). THE IMPORTANCE OF INTEGRATING MATHEMATICAL LITERACY IN THE PRIMARY EDUCATION CURRICULUM: A LITERATURE REVIEW. *International Journal of Teaching and Learning*, 2(1), Article 1.
- Syaifudin, S., Kusumawati, K. D., & Indrato, T. (2022). The Use of Two DPM Modes Equipped with a Thermohygrometer and Pressure Selection for the

- Implementation of Community Service. *Frontiers in Community Service and Empowerment*, 1(1). <https://doi.org/10.35882/ficse.v1i1.5>
- Utama, S., Sofiana, R., & Rozikan, R. (2023). Training and Assistance in the Implementation of QRIS DIGITAL PAYMENT Technology for MSMEs Assisted by Lazismu UMY. *Proceeding International Conference of Community Service*, 1(2), 348–355. <https://doi.org/10.18196/iccs.v1i2.238>
- Vavuris, T. J. (2021). There is no generalizability in community-based work. *Community-Based Service Delivery*, Query date: 2024-06-06 10:36:37, 92–103. <https://doi.org/10.4324/9781003020783-81a>
- Wambua, E. W. E., Maithya, P., Kisirkoi, F., & Njathi, S. N. (2023). School Administrators' Possession of Digital Skills and Digital Literacy Content for Implementation of Digital Literacy Program in Public Primary Schools in Kitui County-Kenya. *Journal of Education and Practice*, 7(6), 76–100. <https://doi.org/10.47941/jep.1505>
- Yu, B., & Wang, W. (2024). *Using Digital Storytelling to Promote Language Learning, Digital Literacy and Digital Collaboration Among English Pre-Service Teachers*. Query date: 2024-06-06 10:36:37. <https://doi.org/10.2139/ssrn.4687456>