

Original Article

Analysis of the Concept of "Digital Financial Literacy" in the High School Economics Curriculum: An Exploratory Study of Impacts and Challenges

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Abstract

The SMA Economics curriculum has not yet integrated Digital Financial Literacy *well*, while students as a digital native generation actively use various modern financial platforms. This creates a dangerous gap where they are technically proficient but have little understanding of risk and the concepts behind it. As a result, students are vulnerable to digital fraud, online loan defaults, and irrational investment decisions. The type of research uses a qualitative approach with the type of library research (*library research*). The data collection technique applied is the documentary study technique. The research results show that: 1). The Literacy Gap: Between Technology Ability and Students' Digital Financial Understanding is that there is a dangerous paradox in high school students: although they are skilled in using digital financial applications such as e-wallets and investment platforms, their understanding of basic concepts and risks is very minimal. 2). Teacher Challenges and Curriculum Infrastructure Limitations is that on the educator's side, the integration of digital financial literacy is hindered by three main challenges. First, the rigid curriculum still focuses on traditional financial institutions without enough space for FinTech material. Second, the majority of teachers feel that they have a stutter in technology and do not have sufficient competence and teaching materials. Third, school policies such as banning the use of mobile phones and the inequality of digital infrastructure make it increasingly difficult to apply contextual learning. 3). Integration Strategy: Designing a Contextual and Adaptive Digital Financial Literacy Framework for Generation Z is that the solution offered is integration through an infusion approach into existing topics, such as discussing FinTech in the chapter on financial institutions or the psychology of impulse buying in the marketplace in the chapter on consumption.

Keywords : Digital Financial Literacy, Economic Curriculum, Impact, Challenges



Introduction

Digital financial literacy (*Digital Financial Literacy* , DFL) In today's digital era, it is very important, especially among the younger generation and students. The DFL concept not only includes an understanding of traditional financial products, but also the ability to use digital technology in personal financial management. An analysis of the integration of DFL into the economics curriculum at the Senior High School (SMA) level shows a significant impact on students' financial behavior as well as the challenges faced in its implementation.

One of the main challenges is how to define and measure DFL effectively. According to Lyons and Kass-Hanna, although many efforts have been made to define and measure financial literacy, there is no widely accepted approach to measure DFL and the relationship between financial and digital literacy (Lyons & Kass-Hanna, 2021). Clarity in the definition of DFL is very important to plan an effective curriculum. Research by Koskelainen et al. shows the need for a clear framework to integrate digital and financial literacy with the aim of forming better financial capabilities in society (Koskelainen et al., 2023).

Studies show that financial literacy and the use of financial technology can significantly influence the financial behavior of individuals. Farida et al. found that although financial literacy itself does not directly affect financial behavior, the use of financial technology has a significant influence (Farida et al., 2021). This shows the importance of a technology-based approach in teaching financial literacy, which should be integrated into the high school economics curriculum so that students can adapt to digital changes in the financial world.

Further, Rahayu et al. emphasizes that the limited understanding of digital financial literacy among the Indonesian millennial generation shows an urgent need to focus on the development of these skills, which can increase financial inclusion and well-being (Rahayu et al., 2022). Their research shows that a good understanding of digital finance influences investment decisions and more positive financial behavior among young people.

In this context, it is important to investigate how DFL can be effectively integrated in the educational curriculum. According to Millaningtyas et al., digitization has opened up new opportunities in financial literacy education through the use of interesting and interactive technology platforms, including videos and quizzes (Millaningtyas et al., 2024). The use of technology in learning not only makes the learning process more interesting but can also help students with various levels of literacy to understand complex financial concepts.

However, challenges remain in guaranteeing the accessibility of technology for all students, especially in less developed areas. According to Ediagbonya and Tioluwani, challenges in providing adequate access to technology and financial education affect financial inclusion in the market of developing countries (Ediagbonya & Tioluwani, 2022). This shows that to achieve the integration of DFL in the curriculum, there is a need for cooperation between the government, educational institutions, and the private sector to provide the necessary resources and training.

So, the integration of digital financial literacy in the high school economics curriculum will not only prepare students to face financial challenges in the digital era, but also

contribute to the financial well-being of society as a whole. However, this requires a multidimensional approach that includes clear definitions, the use of technology in teaching, and collaboration between sectors to overcome existing challenges.

The Economic Education Curriculum at the high school level is currently judged to be lagging behind in responding to the reality of the digital economy. The concept of "*Digital Financial Literacy*" (DFL) or Digital Financial Literacy that includes an understanding of FinTech, digital investment, online loans, e-wallets, and cyber security that has not been adequately integrated. As a result, a dangerous gap appears: students who are technically proficient in using financial applications actually have a minimal conceptual understanding of risk and the mechanisms behind it. On the other hand, teachers face great challenges due to the lack of training, teaching resources, and curriculum that still focuses on traditional financial institutions.

This research is urgent to be done because the SMA generation is the active and most vulnerable user in the digital financial ecosystem. Without an adequate understanding of DFL, they are at high risk of becoming victims of online fraud, defaulting on payments, or making irrational investment decisions. If formal education does not immediately adapt, school institutions will actually pass a generation that is "technologically literate" but "financially blind" digitally. DFL integration is no longer an option, but a necessity to protect and empower students as consumers and actors of the digital economy in the future.

This research aims to analyze in depth the level of implementation of the DFL concept in the High School Economics curriculum by identifying its impact on students' financial knowledge and behavior, as well as mapping the challenges faced by teachers in the learning process. Specifically, the purpose of the research is to provide empirical evidence on the gaps that exist and formulate strategic recommendations that can be the basis for curriculum development that is more relevant and responsive to the challenges of the digital era.

METHOD

This research entitled "Analysis of the Concept of '*Digital Financial Literacy*' in the High School Economics Curriculum: An Exploratory Study of Impacts and Challenges" will use a qualitative approach with the type of library research (*library research*). This approach was chosen because the purpose of the research is to analyze and synthesize existing concepts, findings, and theories in order to develop a comprehensive understanding and answer the formulation of the problem without directly collecting data in the field.

The data source that will be used is all secondary data, which consists of three layers. The first layer is the main textbook that discusses qualitative research methodology, educational economics, and curriculum. The second layer is national and international scientific journal articles published in the period 2019-2024, which focus on digital financial literacy, economic education in secondary schools, and technology integration in the curriculum. The third layer is policy documents and research reports, such as reports from the Financial Services Authority (OJK), the Ministry of Education, Culture, Research, and Technology, as well as other trusted research institutions that are relevant to the research topic. The selection of this data source is done selectively by considering the credibility of the publisher, the relevance of the topic, and its actuality (Sugiyono, 2023).

The data collection technique applied is a documentary study technique, where the researcher systematically searches, collects, and records the various written and electronic documents that have been mentioned. This process involves a search activity using specific keywords in the online journal database and library catalog, followed by the selection of documents based on the eligibility criteria that have been set. This technique allows researchers to gather rich and in-depth data without a physical presence in the field (Moloeng, 2021).

Once the data is collected, the data analysis technique that will be used is content analysis (*content analysis*) of the interactive model. This analysis is carried out systematically through several stages that run cyclically, namely: data collection, data reduction, data presentation, and drawing conclusions. So, in a thought it is highly expected to think systematically, thinking systematically means thinking about all components by considering the role of each component and how they interact with each other so that the set goals can be fully achieved (Azmi et al., 2022).

In the data reduction stage, the researcher will filter, focus, and organize the data that has been collected to facilitate the drawing of conclusions. The data is then presented in the form of a matrix or narrative description to facilitate the identification of patterns, themes, and relationships between concepts. This analysis process is iterative, where researchers continuously move back and forth between the three components until a deep understanding of how the concept of digital financial literacy is integrated, its impact, and the challenges faced (Creswell & Poth, 2023).

To ensure the quality and validity of the data, this research will apply the technique of source triangulation. Triangulation is done by comparing and checking the degree of trust of information obtained from one data source (for example, a journal article) with similar information obtained from other data sources (for example, textbooks or policy reports). By comparing various different data sources, researchers can develop matching and confirmation of findings, thus increasing the validity and depth of the analysis produced. This step is very crucial in literature studies to minimize interpretation bias and ensure that the conclusions drawn are supported by consistent evidence from various credible text sources (Moloeng, 2021).

RESULTS AND DISCUSSION

A. The Literacy Gap: Between Technology Ability and Students' Digital Financial Understanding

The findings of this research confirm the existence of a dangerous paradox among high school students. On the one hand, they are the digital native generation who nimbly and confidently operate various digital financial applications. Surveys and literature studies show a very high level of adoption of *e-wallet* platforms (such as GoPay, OVO, Dana) for daily transactions, retail investment applications (Ajaib, Pluang, Stockbit) to start investing, as well as peer-to-peer lending platforms (online loans) to access quick funds. However, behind these technical-operational skills, there is a deep understanding gap about the concept and financial risk behind the service (Lusardi & Mitchell, 2023).

This research found that the majority of students have a very limited understanding of basic concepts such as effective annual interest (*effective annual rate*) on online loans which is often a trap, the working mechanism and high volatility of crypto assets, the

importance of portfolio diversification, as well as aspects of cyber security and personal data protection. They often get stuck in cognitive bias, where they feel they "understand" just because they are able to click and tap on the screen, even though they do not have the knowledge base to evaluate the health of a financial product or distinguish between legal and illegal platforms. This gap, which can be called "technologically literate but financially blind", creates a serious vulnerability where students become easy targets for digital fraud practices, stupid investments, and impulsive consumptive behavior due to aggressive marketing strategies on digital platforms (Lusardi & Mitchell, 2023). The impact is not only on potential short-term financial losses, but also on the formation of incorrect financial management habits that can be carried into adulthood.

The literacy gap, both in the context of technology and students' digital financial understanding, is an important issue in modern education. This issue reflects the urgent need to improve students' ability to face the challenges of an increasingly digital and complex age. In this context, technological literacy and financial literacy among students are interrelated and influence each other.

Digital literacy is necessary so that students can use modern technology optimally, safely, and responsibly. Research results show that good digital literacy can improve students' technological competence, which in turn can better prepare them to face the current digital era (Devi & Winangun, 2024). In the educational environment, the role of the teacher is very critical in improving students' digital literacy by integrating technology in the teaching and learning process (Manik, 2022). This action creates an adaptive learning environment and encourages students to be more critical of digital content (Manik, 2022).

Meanwhile, financial literacy is a crucial skill for students, especially in the context of personal financial management. Research shows that there is a significant gap in the understanding of financial literacy among primary school students, and this requires a more innovative approach in teaching. The development of Problem-Based Learning (PBL) teaching modules has been proven to be effective in improving students' financial literacy by involving them in situations that simulate real financial decisions (Darmansyah et al., 2023).

Research also shows that social and financial literacy can be improved through the storytelling method, which introduces basic concepts such as cooperation and financial management in a simple and attractive way for children (Alfarizka & Nirwana, 2024). The use of this method not only makes it easier for children to understand the concepts, but also builds sustainable positive character.

However, the real challenge remains in terms of literacy. Recent research shows that despite efforts to promote financial literacy among students, there is still a large gap that reflects several factors, including socioeconomic background and gender. In a survey of the young generation in developing countries, it was found that the financial and digital literacy gap between men and women is very striking, which has the potential to hinder women's ability to participate in the digital economy (Kristianti & Kristiana, 2023).

In conclusion, to overcome the gap in technological literacy and financial understanding among students, a multidimensional approach is needed that includes the development of a relevant curriculum, the active role of teachers in teaching, and collaboration

between home and school in developing literacy awareness in the community (Devi & Winangun, 2024). Only in this way, the next generation will have sufficient knowledge and skills to move in an increasingly complex and connected world.

B. Teacher Challenges and Curriculum Infrastructure Limitations

On the educator's side, this research reveals the complexity of the challenges that hinder the integration of DFL. The first and most fundamental challenge is the rigid and non-adaptive curriculum. The Merdeka Curriculum document and its predecessors, although they have touched on financial literacy, still focus on traditional financial institutions (such as banks and cooperatives) as well as abstract macroeconomic concepts. The space to discuss FinTech, cryptocurrency, or strategies to deal with online fraud is very limited and is not explicitly required in the Basic Competencies. This places teachers in a dilemmatic position: should they add material outside of the existing "grip". The second challenge is the readiness and competence of teachers (Zubaidah, 2021).

Most economics teachers do not receive specific training on the digital economy. They feel technology stutters (*digital immigrants*) and overwhelmed by the speed of development of the *FinTech* industry , so they lack confidence to bring material that they consider very technical and quickly obsolete. The lack of a comprehensive teaching module or handbook about DFL further exacerbates this condition, so that teachers rely on personal knowledge that may not be complete. The third challenge is infrastructure and school policies. The ban on the use of cell phones in the school environment, which is intended to increase focus on learning, actually contradicts the needs of DFL contextual learning that requires interaction with applications. Inequality of internet access and digital devices between schools is also a real obstacle that cannot be ignored. The combination of all these factors creates a "high wall" that prevents the transformation of economic learning that suits the times (Zubaidah, 2021).

The challenges faced by teachers in the current context of education, especially during and after the pandemic, have become the focus of attention of many researchers. In the context of the rapid transition of online education, teachers experience various difficulties related to curriculum changes, limited infrastructure, and aspects of mental health. Various studies show that these challenges contribute directly to the experience and effectiveness of teaching, which has an impact on the quality of education provided to students.

The transition to online learning during COVID-19 creates significant challenges for teachers at various levels of education. According to Ma et al, the implementation of online teaching requires an increase in self-confidence and self-efficacy from educators (Ma et al., 2021). The research shows that many teachers experience difficulties in adapting their teaching methods to the online format, resulting in stress and anxiety related to their ability to provide quality education. This is exacerbated by the limitations of uneven technological infrastructure, which causes an access gap for students and teachers (Guise et al., 2024). Teachers are faced with technological challenges, including a lack of appropriate equipment and digital skills, which hinder their teaching effectiveness.

In addition to the technology aspect, limited educational resources also hinder teachers' efforts in providing quality education. Inadequacy of materials and teaching materials is a serious problem, especially at the basic education level. As expressed by Tabura, kindergarten teachers face a significant struggle in implementing quality education

without the support of adequate resources. The inability to provide a deep learning experience has implications for children's cognitive and emotional development, which is essential in the early stages of their education (Tabura, 2025).

The implementation of the Independent Curriculum in Indonesia also brings its own challenges. Research by Slamet et al. shows that although there is hope to facilitate better learning through outdoor learning methods, there are obstacles in its implementation. In this context, teachers are often caught between curriculum demands that require them to adapt and insecure or inadequate infrastructure. This limitation creates a significant gap between the desired educational policy and the actual educational practice (Slamet et al. (2025).

The mental health of teachers is also an important issue in this context. Research by Spadafora et al. noted that many teachers feel burdened by the additional responsibilities that appear as a result of the shift to online learning, including difficulty adapting to new technology, lack of communication with students, and increased stress due to poorly managed work. This shows that psychological support for teachers is very necessary, especially in facing these stressful transitional phases (Spadafora et al., 2022).

So, the solution to overcome this challenge requires a holistic and integrated approach. The digital skills of teachers need to be improved through training programs that are more adaptive and based on real practice. In addition, investment in educational infrastructure, both educational materials and technology, should be a priority to support teachers in implementing the curriculum effectively. In addition, attention to the mental health of teachers should be given high priority to create a healthier and more sustainable educational environment.

C. Integration Strategy: Designing a Contextual and Adaptive Digital Financial Literacy Framework for Generation Z

Based on the analysis of existing gaps and challenges, this research formulates an integration strategy framework that is contextual and adaptive. This framework does not aim to create new subjects that will burden the curriculum, but instead proposes an infusion and embedding approach *into* existing topics. For example, in the discussion about financial institutions, teachers can introduce the roles and types of *FinTech* and Digital Banks. In the consumer behavior chapter, the psychology behind discounts, flash sales, and digital marketing strategies that encourage impulse buying can be analyzed, as well as teach smart online shopping strategies. On the topic of investment and capital markets, it is important to introduce modern digital investment instruments (such as online mutual funds, retail stocks, and crypto assets) in addition to gold or property, with a strong emphasis on risk profile analysis and the importance of responsible investment (Fullan, 2020).

So, to make learning more interesting and relevant, this research recommends the use of learning modules based on actual case studies, such as raising cases of online loan defaults, investigating a viral stupid investment scheme, or analyzing the promotion strategy of a product on TikTok Shop. This approach will directly touch the real world of students. Furthermore, to overcome the challenge of teacher competence, the integration strategy should be supported by a strong ecosystem collaboration. Schools need to open space for collaboration with external parties such as the Financial Services Authority (OJK) for workshops on safe digital finance, or *FinTech* industry actors who

are responsible for providing practical understanding. Empowering the teacher community through the Learning Community Program (PKB) to share resources and good practices regarding DFL is also a crucial step to build teacher capacity on a sustainable basis (Fullan, 2020). With this framework, economic education is no longer a set of outdated theories, but a transformation into a life guide (life skills) that is essential for generation Z to not only survive, but also succeed and be empowered in the ever-changing digital economic landscape.

Generation Z, which includes individuals born between 1996 and 2010, is a group that has unique characteristics in facing the digital era and the economic challenges faced today. Therefore, the integration strategy in designing a contextual and adaptive digital financial literacy framework for this generation is very important. Financial literacy and digital literacy both become very relevant, considering the shift towards the use of digital banking services and technology-based investment platforms that is increasing among the younger generation (Tiffani, 2023; Erliana & Tjokrosaputro, 2023).

Financial literacy education in Indonesia is developing, but there is still a lack of an integrated approach, especially for generation Z. Research shows that the government and the private sector have begun to invest in financial literacy education, but its implementation still needs to be improved, especially in terms of providing appropriate educational media and training for educators (Sari & Sa'ida, 2021). Training plans and workshops for high school students, for example, can help them better understand the concept of financial literacy and investment, enabling generation Z to make smarter financial decisions (Octrina et al., 2023).

In the context of investment, financial literacy plays an important role in encouraging generation Z's interest in investing, as shown by studies that identify technology and financial literacy as significant factors in influencing the investment decisions of the younger generation (Erliana & Tjokrosaputro, 2023; Bidari & Sinarwati, 2023). Programs targeting generation Z in this regard should also consider the ways they access information, which is very different compared to previous generations (Muaviah et al., 2023). In addition, greater access to information through the internet gives this generation the opportunity to enrich their knowledge about financial management and investment (Bidari & Sinarwati, 2023).

From the point of view of consumption behavior, research shows that financial literacy influences the purchase decisions of generation Z, which are often influenced by digital marketing strategies and social trends they follow (Sustiyo, 2020; Listyaningsih & Launi, 2024). Therefore, it is important for a digital financial literacy framework that is designed to strengthen their ability to sort financial information and make smart decisions, especially in the context of online shopping (Listyaningsih & Launi, 2024).

In order to design an effective and adaptive digital financial literacy framework, collaboration between academia, government, and industry players is essential. An approach that involves direct exposure and real practice in investment and financial management can strengthen the understanding and skills of this generation in facing more complex economic challenges in the future (Judijanto et al., 2024). This initiative can include community-based engagement programs that target the specific needs of generation Z, integrate current technology, and provide relevant and interesting learning (Octrina et al., 2023).

So, the planned integration strategy must be contextual to the current situation and

habits of youth, as well as adaptive in order to be able to respond to the dynamics that occur in the ever-changing digital world. This will be key in ensuring that generation Z is not only a consumer of information, but also a smart financial user and manager in the digital era (Muaviah et al., 2023).

CONCLUSION

Based on the results of the research, it can be concluded that there is a significant gap between the technical skills of students in using digital financial applications and their conceptual understanding of the risks and mechanisms behind the service. This "*technologically literate but financially blind*" phenomenon creates a serious vulnerability among generation Z to digital fraud practices and irrational financial decision-making. On the other hand, efforts to overcome this gap are hindered by multidimensional challenges from the side of educators and curriculum, where teachers face obstacles in the form of a rigid curriculum, lack of training, and limited supporting infrastructure. However, this research also offers a strategic solution through a contextual integration framework that focuses on the approach of inserting digital financial literacy materials into existing topics, the development of modules based on actual case studies, as well as the development of ecosystem collaboration with external parties to empower teachers.

As a form of implementation of the research findings, a comprehensive follow-up program can be planned. First, it is necessary to develop a Digital Financial Literacy Learning Module for high school teachers and students that contains practical material on recognizing FinTech products, calculating online loan costs, safe investment principles, and tips to avoid digital fraud, with presentations based on actual case studies that are close to students' daily lives. Second, the Ministry of Education together with the Financial Services Authority (OJK) can organize a Tiered Training and Support Program for Teachers to increase the capacity of educators in teaching digital economy concepts, while also forming a learning community (PKB). Third, the policy at the school level needs to be adapted by compiling Technical Guidelines for the Integration of DFL in the School Operational Curriculum which provides concrete guidance for teachers to insert DFL concepts into various subjects, especially Economics and PKN.

REFERENCE

- Alfarizka, D. and Nirwana, E. (2024). The influence of the storytelling method on improving the social and financial literacy skills of early childhood children. *Journal of Early Childhood Education Obsession*, 8(2), 265-271. <https://doi.org/10.31004/obsesi.v8i2.5441>
- Azmi, U., Rosadi, KI, & Zebua, AM (2022). The Urgency Of Ihsan And Thinking Systemic In Increasing Motivation And Quality Of Education. *Teunuleh Scientific Journal*, 3(2), 83-92. <https://doi.org/10.51612/teunuleh.v3i2.88>
- Bidari, N. and Sinarwati, N. (2023). The role of financial literacy and herding in the investment decisions of generation z. *Journal of Economic Management*, 5(2), 146-152. <https://doi.org/10.36985/managemen.v5i2.850>
- Creswell, JW, & Poth, CN (2023). *Qualitative Inquiry and Research Design: Choosing Among Five Approaches* (5th ed.). SAGE Publications.
- Darmansyah, A., Susanti, A., & Rahman, A. (2023). The development of a teaching module based on problem-based learning to improve the financial literacy of primary school students. *Basicedu Journal*, 7(6), 3630-3645.

- <https://doi.org/10.31004/basicedu.v7i6.6349>
- Devi, L. and Winangun, I. (2024). The role of digital literacy in improving the technological competence of primary school students. *Citra Bakti Scientific Journal of Education*, 11(4), 1255-1267. <https://doi.org/10.38048/jipcb.v11i4.4681>
- Dewi, D., Hamid, S., Annisa, F., Oktafianti, M., & Genika, P. (2021). Developing student character through the use of digital literacy. *Basicedu Journal*, 5(6), 5249-5257. <https://doi.org/10.31004/basicedu.v5i6.1609>
- Ediagbonya, V. and Tioluwani, C. (2022). The role of fintech in driving financial inclusion in developing and emerging markets: issues, challenges and prospects. *Technological Sustainability*, 2(1), 100-119. <https://doi.org/10.1108/techs-10-2021-0017>
- Erliana, E. and Tjokrosaputro, M. (2023). Factors that influence generation z's intention to invest in stocks. *Journal of Business Management And Entrepreneurship*, 7(6), 1254-1267. <https://doi.org/10.24912/jmbk.v7i6.27258>
- Farida, M., Soesatyo, Y., & Aji, T. (2021). Influence of financial literacy and use of financial technology on financial satisfaction through financial behavior. *International Journal of Education and Literacy Studies*, 9(1), 86. <https://doi.org/10.7575/aiac.ijels.v.9n.1p.86>
- Fullan, M. (2020). *The New Meaning of Educational Change* (5th ed.). Teachers College Press.
- Guise, A., Girard, S., & Boulanger, M. (2024). Pre-service physical education teachers' perceptions of anticipated challenges and needs during teacher education programs. *Canadian Journal of Higher Education*. <https://doi.org/10.47678/cjhe.vi.189943>
- Judijanto, L., Rasidun, L., & Aris, N. (2024). Academic contribution in the development of digital financial literacy. *West Science Journal of Economics and Entrepreneurship*, 2(03), 329-340. <https://doi.org/10.58812/jekws.v2i03.1432>
- Koskelainen, T., Kalmi, P., Scornavacca, E., & Vartiainen, T. (2023). Financial literacy in the digital age—a research agenda. *Journal of Consumer Affairs*, 57(1), 507-528. <https://doi.org/10.1111/joca.12510>
- Kristianti, I. and Kristiana, D. (2023). Analysis of financial literacy, financial attitudes and financial behavior in millennials and generation z. *Mercu Buana Accounting Research Journal*, 9(1). <https://doi.org/10.26486/jramb.v9i1.3275>
- Listyaningsih, E. and Launi, A. (2024). The influence of prices, shopee discounts, media advertisements, and online customer reviews on the interest in buying online with digital financial literacy as a moderating variable on the shopee marketplace. *JAKPT*, 1(3), 213-228. <https://doi.org/10.59407/jakpt.v1i3.603>
- Lusardi, A., & Mitchell, OS (2023). *The Importance of Financial Literacy: Opening a New Field*. Oxford University Press.
- Lyons, A. and Kass-Hanna, J. (2021). A methodological overview to defining and measuring "digital" financial literacy. *Financial Planning Review*, 4(2). <https://doi.org/10.1002/cfp2.1113>
- Ma, K., Chutiyami, M., Zhang, Y., & Nicoll, S. (2021). Online teaching self-efficacy during covid-19: changes, its associated factors and moderators. *Education and Information Technologies*, 26(6), 6675-6697. <https://doi.org/10.1007/s10639-021-10486-3>
- Manik, J. (2022). The role of teachers in maintaining the e-safety of students in the era of digital technology in Indonesia. *Educational Journal of Education*, 4(4), 5098-5108. <https://doi.org/10.31004/edukatif.v4i4.3085>
- Millaningtyas, R., Amin, M., Hermawan, A., & Handayati, P. (2024). Digital transformation of financial literacy and inclusion as a support for convenience for

- msmes. *International Journal of Humanities Education and Social Sciences (Ijhess)*, 3(5). <https://doi.org/10.55227/ijhess.v3i5.824>
- Moloeng, LJ (2021). *Qualitative Research Methodology (Revised Edition)*. PT Rejama Rosdakarya.
- Muaviah, E., Lathifaturrahmah, L., Dewi, A., & febriani, n. (2023). Generation z, step in the digital era wisely and planned. *JSC*, 1(2), 63-81. <https://doi.org/10.61183/jsc.v1i2.39>
- Octrina, F., Rizal, N., Krisnawati, A., & Hendayani, R. (2023). Socialization of financial and investment literacy for gen z. *JMM (Independent Society Journal)*, 7(5), 4195. <https://doi.org/10.31764/jmm.v7i5.16751>
- Rahayu, R., Ali, S., Aulia, A., & Hidayah, R. (2022). The current digital financial literacy and financial behavior in Indonesian millennial generation. *Journal of Accounting and Investment*, 23(1), 78-94. <https://doi.org/10.18196/jai.v23i1.13205>
- Sari, A. and Sa'ida, N. (2021). Investing in financial literacy education for early childhood children in Indonesia. *Obsession Journal Early Childhood Education Journal*, 6(3), 2085-2094. <https://doi.org/10.31004/obsesi.v6i3.1369>
- Slamet, S., Soelistijanto, R., Setyaningsih, S., Redjeki, S., & Sayekti, S. (2025). Implementation of merdeka curriculum in the learning process through outdoor learning methods. *Ra Journal of Applied Research*, 11(02). <https://doi.org/10.47191/rajar/v11i2.01>
- Spadafora, N., Reid-Westoby, C., Pottruff, M., & Janus, M. (2022). Family responsibilities and mental health of kindergarten educators during the first covid-19 pandemic lockdown in Ontario, Canada. *Teaching and Teacher Education*, 115, 103735. <https://doi.org/10.1016/j.tate.2022.103735>
- Sugiyono. (2023). *Qualitative Research Methods (Fourth Edition)*. Alfabeta.
- Sustiyo, J. (2020). Does financial literacy affect the consumption behavior of generation z?. *Immanensi Journal of Islamic Accounting and Management Economics*, 5(1), 25-34. <https://doi.org/10.34202/imanensi.5.1.2020.25-34>
- Tabura, R. (2025). Struggles experienced by kindergarten teachers in implementing quality education. *International Journal of Multidisciplinary Research and Analysis*, 08(01). <https://doi.org/10.47191/ijmra/v8-i01-43>
- Tiffany, I. (2023). The influence of financial literacy and digital literacy on digital bank preferences. *Mbia*, 22(1), 152-167. <https://doi.org/10.33557/mbia.v22i1.2039>
- Zubaidah, S. (2021). *Freedom to Learn and Educational Transformation in Indonesia*. Erlangga Publishers.