Inovasi Kurikulum

https://ejournal.upi.edu/index.php/JIK

Exploring the perceptions of students on using Instagram as a digital portfolio

Haryo Guntoro Wicaksono[1], Henry Praherdhiono[2], Saidah Ulfa[3]
[1,2,3] Universitas Negeri Malang, Malang, Indonesia
hargunt.wi@gmail.com[1], henry.praherdhiono.fip@um.ac.id[2], saida.ulfa.fip@um.ac.id[3]

ABSTRACT

This study examines how students perceive and experience the use of social media as a digital portfolio in higher education. The main goal is to identify the advantages and disadvantages of using social media for digital portfolios, to highlight the challenges students face, and to examine its impact on teaching and learning in higher education. By filling research gaps, this study aims to reveal the benefits and drawbacks of using social media as a digital portfolio, the obstacles students encounter, and the effects on teaching and learning. This study employed a quantitative survey design to examine students' perceptions of social media use in their learning process. Social media has the potential to transform how students showcase their work and professional identity. It is crucial for educational institutions to support students in responsibly using social media as a digital portfolio, including educating them about online privacy and security. Faculty members can encourage responsible use of social media by integrating it into their teaching and evaluating students' online presence. While social media can help promote academic accomplishments, addressing privacy and ethical concerns is essential.

ABSTRAK

Studi ini mengeksplorasi bagaimana siswa memandang dan pengalaman menggunakan media sosial sebagai portofolio digital di pendidikan tinggi. Tujuan utamanya adalah untuk mengidentifikasi pro dan kontra menggunakan media sosial untuk portofolio digital, menyoroti tantangan yang dihadapi siswa, dan memeriksa dampaknya terhadap pengajaran dan pembelajaran di pendidikan tinggi. Dengan mengisi kesenjangan penelitian, penelitian ini bertujuan untuk mengungkapkan manfaat dan kerugian menggunakan media sosial sebagai portofolio digital, hambatan yang dihadapi siswa, dan efeknya pada pengajaran dan pembelajaran. Penelitian ini menggunakan metode kuantitatif dengan pendekatan survei untuk mengeksplorasi persepsi mahasiswa terhadap penggunaan media sosial dalam proses pembelajaran mereka. Media sosial memiliki potensi untuk mengubah cara siswa menampilkan karya dan identitas profesional mereka. Sangat penting bagi lembaga pendidikan untuk mendukung siswa dalam menggunakan media sosial secara bertanggung jawab sebagai portofolio digital, termasuk mendidik mereka tentang privasi dan keamanan online. Anggota fakultas dapat mendorong penggunaan media sosial yang bertanggung jawab dengan mengintegrasikannya ke dalam pengajaran mereka dan mengevaluasi kehadiran online siswa. Sementara media sosial dapat membantu mempromosikan prestasi akademik, mengatasi masalah privasi dan etika sangat penting.

Kata Kunci: Instagram; media sosial; portofolio digital

INTRODUCTION

In January 2023, Indonesia boasted a substantial social media user base of 167.0 million individuals. Recent revisions to data sources have introduced discrepancies relative to figures from previous years. These adjustments preclude a direct comparison between current and past statistics, emphasizing that any discrepancies should be interpreted as data refinements rather than actual shifts in social media usage trends. Notably, analyses by reputable sources such as GWI and data.ai indicate a consistent upward trend in social media engagement across most countries, dispelling notions of a decline in social media adoption. The 167.0 million social media users in Indonesia at the beginning of 2023 accounted for 60.4% of the nation's total population (see https://datareportal.com/reports/digital-2023-indonesia).

However, it is essential to acknowledge that this figure may encompass non-unique individuals. Further insights from the advertising tools of leading social media platforms indicated that 153.7 million users aged 18 and above were active on social media in Indonesia, representing 79.5% of the adult population. Notably, 78.5% of Indonesia's internet user base engaged with at least one social media platform in January 2023. Within this demographic landscape, female users accounted for 46.8% of Indonesia's social media audience, while male users accounted for 53.2%. This nuanced breakdown underscores the diverse social media demographics within Indonesia. According to the data, all age groups in Indonesia use the internet, with younger generations participating in online activities the most (Ningsih & Rahyuni, 2023).

Users of social media, particularly among young people, have been multiplying at rates that were never before seen (Beyari, 2023; El-Khoury et al., 2021; Gordon & Ohannessian, 2023; van Oosten et al., 2023). Instagram is a social media platform on which users can share original content, such as photos or videos (Abney et al., 2019). However, given the potential role of Instagram, taking into account the exploitation of Facebook and Twitter, in an art and teaching setting (not limited to, though), It is remarkable that, aside from a good number of research, Instagram has received so little scientific attention (Carpenter et al., 2020; Obeso et al., 2023; Shelton et al., 2022). Therefore, social media is now being adapted in education as a learning tool.

The use of social media as a digital portfolio in higher education is a new practice with the potential to transform how students document and showcase their work (Farrell, 2020; Vasco Delgado et al., 2023; Walland & Shaw, 2022). The use of social media as a digital portfolio in higher education raises several important questions that require answers. For example, how do students view social media as a digital portfolio, and what are the advantages and disadvantages of using social media in this way? What challenges do students face when using social media as a digital portfolio, and how can these challenges be overcome? What are the implications of using social media as a digital portfolio for teaching and learning in higher education? Research is needed to explore the experiences and perceptions of students who have used social media in this way.

Previous research has examined how social media can be used as an e-portfolio to support learning in higher education (Chang & Kabilan, 2022). According to the study's findings, social media can be a useful tool for e-portfolios in higher education, but it also presents challenges that require attention. The impact of using social media as an electronic portfolio in higher education requires further study. This study aims to address this gap by providing insights into the benefits and drawbacks of using social media as a digital portfolio, the challenges students face when using it in this way, and the implications of this practice for teaching and learning in higher education.

The purpose of this study is to explore the experiences and perceptions of students who have used social media as a digital portfolio in higher education. The expected findings of this study include a deeper understanding of the benefits and drawbacks of using social media as a digital portfolio, the

challenges students face when using it in this way, and the implications for teaching and learning in higher education. This research is expected to provide insights and recommendations for educators and students considering the use of social media as a digital portfolio in higher education.

LITERATURE REVIEW

Social media provides the most recent news and updates and has expanded significantly in popularity, taking on many forms in the modern period. Using social media can increase sales and ultimately increase business profits (Napitupulu et al., 2023). Moreover, research has shown that social media has been used to promote teaching and learning activities (Cassidy et al., 2020; Sivakumar et al., 2023; van Bommel et al., 2020). Hence, social media has been used in a variety of industries, including education. With its widespread use, social media has revolutionized the way we communicate and share information. Educators have recognized its potential to serve as a digital portfolio in higher education.

Higher education institutions are challenged to communicate and showcase students' achievements and skills effectively. Traditional methods, such as transcripts and resumes, can be limiting and do not always provide a comprehensive view of a student's abilities and accomplishments. As a result, students may struggle to differentiate themselves and stand out among their peers in a competitive job market or in pursuing further education. A digital portfolio is an online platform that showcases a student's work, skills, and accomplishments. It provides a dynamic and interactive way to demonstrate a student's academic and extracurricular achievements to potential employers or graduate schools. The objective of using social media as a digital portfolio in higher education is to provide students with an innovative means of showcasing their work and professional development.

In addition, social media enables students to interact more dynamically with potential employers and peers. Social media can help students develop their professional identity and career aspirations by providing a platform to network with professionals in their field. Social media platforms such as Facebook, Instagram, Twitter, Google+, Flickr, and others have significant potential for educational purposes. Educators frequently use them as a source for their lessons due to their growing popularity and use in education, as well as their mobile applications (Ansari & Khan, 2020; Haleem et al., 2022; Oguguo et al., 2020; Richter et al., 2022; Roemintoyo et al., 2020; Thaariq, 2020). The potential of social media can have both beneficial and detrimental effects. For instance, hoaxes (the spread of false information) (Allcott et al., 2019).

The use of social media as a digital portfolio tool in higher education has gained attention in recent years (Barrot, 2022; Lam, 2022; Papademetriou et al., 2022). Social media platforms enable students to create dynamic, interactive digital portfolios that showcase their academic work, extracurricular activities, and other experiences. A study found that children rarely had sufficient opportunities to interact with classmates while developing their self-regulated learning skills (Fukuda et al., 2022). They proposed that co-regulation of learning in technology-assisted learning environments (e.g., e-Portfolios) plays a critical role in encouraging the adoption of self-regulated learning strategies and self-assessment abilities. Institutions need to provide guidance and support to students to promote the responsible use of social media as a digital portfolio tool. This includes educating students about online privacy and security and providing guidance on professional self-presentation.

A study found that schools played an important role in integrating social media into the educational environment and assisting teachers in effectively using it for pedagogical purposes (Van Den Beemt et al., 2020). In conclusion, social media can provide a valuable platform for students to showcase their academic work, extracurricular activities, and other experiences. However, institutions must also be aware of the potential ethical and privacy concerns associated with using social media as a digital portfolio tool. By providing guidance and support to students, institutions can promote responsible use of

social media while also helping students differentiate themselves in a competitive job market or in their pursuit of further education.

Furthermore, social media can provide a more comprehensive view of a student's abilities and accomplishments. It allows students to showcase their work in multimedia formats, including videos, images, and interactive presentations. This provides a more accurate representation of their skills and achievements, enabling a deeper understanding of their abilities. In conclusion, the use of social media as a digital portfolio in higher education has become an innovative way for students to showcase their work and professional development. Social media provides a dynamic and interactive way to demonstrate a student's academic and extracurricular achievements to potential employers or graduate schools. It also helps students develop their professional identity and career aspirations, as well as their communication skills.

METHODS

This study employed a quantitative survey design to examine students' perceptions of social media use in their learning process. This study was conducted at SMA Negeri 13 Malang with a sample of 60 students. The survey in this study included questions about social media use in their learning, allowing participants to express their perceptions, emotions, and attitudes toward the phenomenon under study. The research questions were tested beforehand to ensure their effectiveness. Data were collected by distributing the survey to the research sample. The data analysis in this study employed descriptive analysis to explain the students' responses in detail. The analysis was conducted by two independent researchers, who cross-checked each other's work to ensure the reliability and validity of the findings.

RESULTS AND DISCUSSION

Instagram has emerged as a popular platform for showcasing personal and professional achievements, thereby enabling users to curate their digital presence. In this study, we investigate the viability of Instagram as a digital portfolio tool in vocational high schools.

Table 1. Students Survey Question

No.	Question
1	Using Social Media makes learning easier
2	Using Social Media makes learning more interesting
3	Using Social Media makes learning more fun
4	Using Social Media makes learning more interactive
5	Using Social Media makes learning more complicated
6	Using Social Media makes learning more effective
7	Using Social Media makes learning more efficient
8	Using Social Media makes students more motivated
9	Using Social Media makes students more troublesome
10	Using Social Media makes students more involved in learning

Source: Research Documentation

Through a survey of students in vocational programs, we aimed to assess the extent to which Instagram is used to showcase vocational skills, projects, and accomplishments (see **Table 1**). The survey sought to explore students' perceptions of Instagram as a portfolio tool, the types of content typically shared, the

170

level of engagement with their portfolios, and perceived benefits and challenges of using Instagram in this capacity.
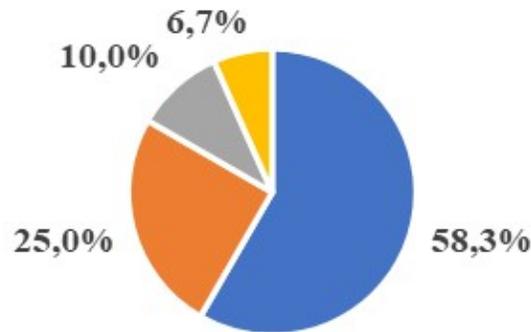
Using Social Media Makes Learning Easier

Figure 1. Percentage Results from Question Number 1
Source: Research Documentation 2024

Figure 1 shows that among the 60 participants, 35 (58.3%) strongly agreed and 15 (25%) agreed that social media makes learning easier. A total of 50 of 60 (83.3%) participants believe that social media can simplify the learning process. The high percentage of participants who agree that social media makes learning easier suggests that social media tools can be effective in breaking down complex concepts and making information more accessible to learners.

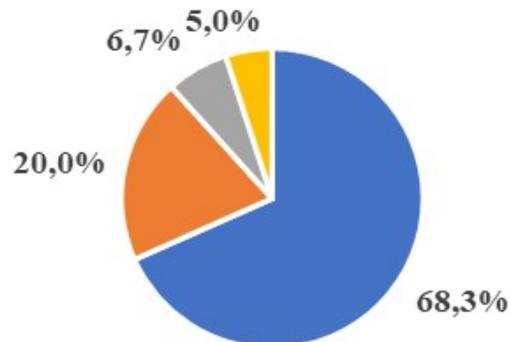**Using Social Media Makes Learning More Interesting**

Figure 2. Percentage Results from Question Number 2
Source: Research Documentation

Figure 2 shows that of the 60 participants, 41 (68.3%) agreed, and 12 (20%) strongly agreed that social media makes learning more interesting. A total of 53 of 60 (88.3%) participants believe that social media can be used to make the learning process more engaging and relevant to students' interests and experiences. The high percentage of participants who agree that social media makes learning more interesting suggests that social media tools can be used to capture learners' attention and motivate deeper engagement with course material.

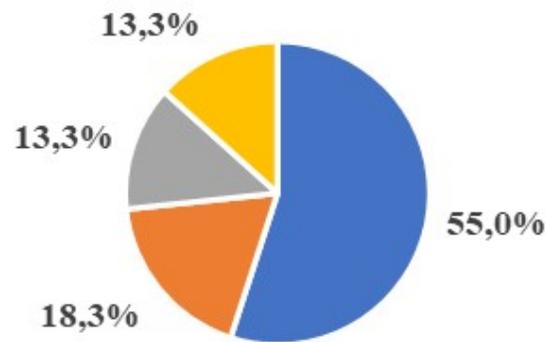**Using Social Media Makes Learning More Fun**

Figure 3. Percentage Results From Question Number 3
Source: Research Documentation

Figure 3 shows that, among the 60 participants, 33 (55%) agreed and 11 (18.3%) strongly agreed that social media makes learning more fun. This means that 44 of 60 (73.3%) participants believe that social media can introduce playfulness and enjoyment into the learning process. The high percentage of participants who agree that social media makes learning more fun suggests that social media tools can be used to create a positive, enjoyable learning environment, thereby enhancing learners' motivation and engagement.

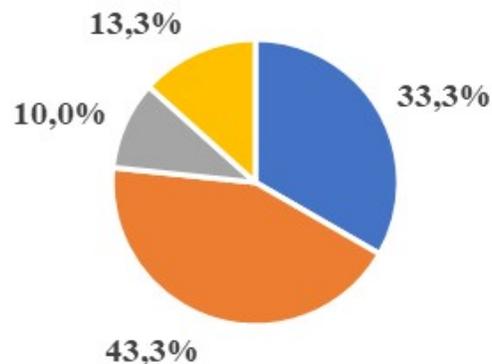**Using Social Media makes learning more interactive**

Figure 4. Percentage Results from Question Number 4
Source: Research Documentation

Figure 4 shows that, among the 60 participants, 20 (33.3%) agreed and 26 (43.3%) strongly agreed that social media makes learning more interactive. This means that 46 of 60 (76.7%) participants believe that social media tools can facilitate more collaborative and participatory learning experiences. The high percentage of participants who agree that social media makes learning more interactive suggests that social media tools can be effective in promoting deeper understanding and information retention through active engagement and discussion.
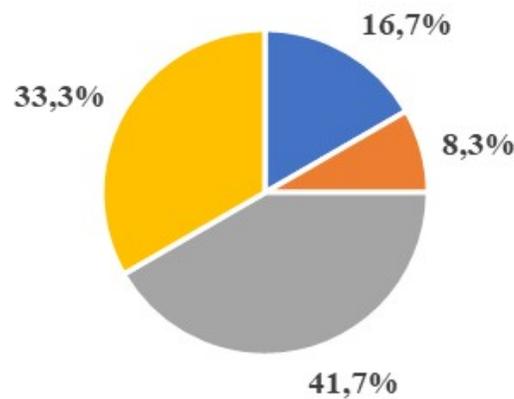
172

Using Social Media Makes Learning More Complicated

Figure 5. Percentage Results from Question Number 5
Source: Research Documentation

Figure 5 shows that, among the 60 participants, 10 (16.7%) agreed and 5 (8.3%) strongly agreed that social media makes learning more complicated. This means that 15 of 60 (25%) participants believe that social media can add unnecessary complexity to the learning process. The low percentage of participants who agree that social media makes learning more complicated suggests that social media tools are generally not perceived as increasing the difficulty or complexity of learning.

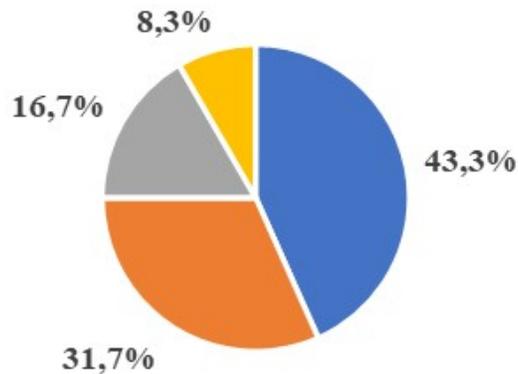**Using Social Media Makes Learning More Effective**

Figure 6. Percentage Results from Question Number 6
Source: Research Documentation

Figure 6 shows that, among the 60 participants, 26 (43.3%) agreed and 19 (31.7%) strongly agreed that social media makes learning more effective. This indicates that 45 of 60 (75%) participants believe that social media tools can enhance the learning process. The relatively high percentage of participants who agree that social media makes learning more effective suggests that social media tools can be used strategically to optimize learning outcomes.
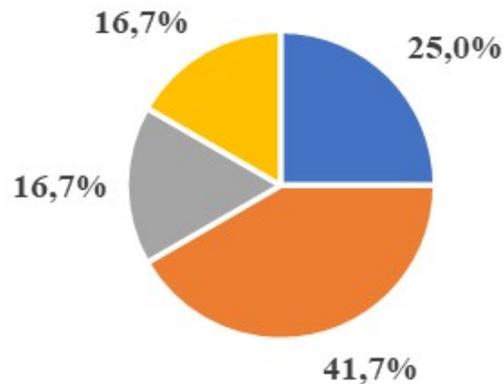
Using Social Media Makes Learning More Efficient

Figure 7. Percentage Results from Question Number 7
Source: Research Documentation

Figure 7 shows that, among the 60 participants, 15 (25%) agreed and 25 (41.7%) strongly agreed that social media makes learning more efficient. A total of 40 of 60 (66.7%) participants believe that social media tools can improve learners' productivity and time management. The high percentage of participants who agree that social media makes learning more efficient suggests that social media tools can be used to optimize instructional time and resources, enabling students to achieve more in less time.
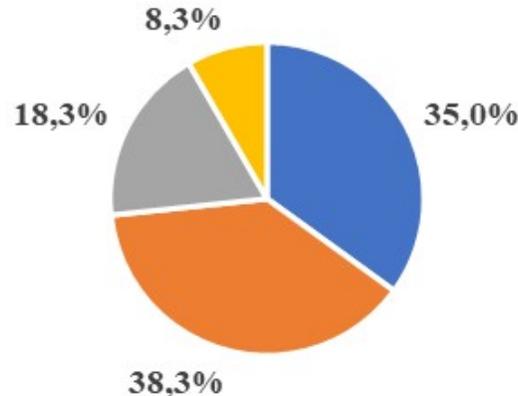
Using Social Media Makes Students More Motivated

Figure 8. Percentage Results from Question Number 8
Source: Research Documentation

Figure 8 shows that, among the 60 participants, 21 (35%) agreed and 23 (38.3%) strongly agreed that social media increases students' motivation. A total of 44 of 60 (73.3%) participants believe that social media tools can enhance students' motivation and engagement with course material. The high percentage of participants who agree that social media makes students more motivated suggests that social media tools can foster a sense of ownership and agency in the learning process, empowering students to take control of their learning and pursue their goals with greater enthusiasm and focus.
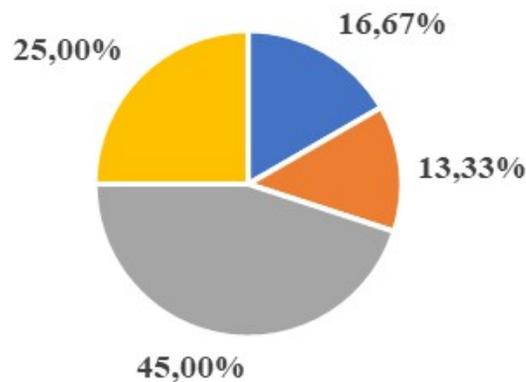
Using Social Media Makes Students More Troublesome

Figure 9. Percentage Results from Question Number 9
Source: Research Documentation

Figure 9 shows that, among the 60 participants, 10 (16.7%) agreed and 8 (13.3%) strongly agreed that social media makes students more troublesome. This means that 18 of 60 (30%) participants believe that social media tools can negatively affect students' behavior and conduct. The relatively low percentage of participants who agree that social media makes students more troublesome suggests that social media tools are generally not perceived as a major source of behavioral problems in the classroom.

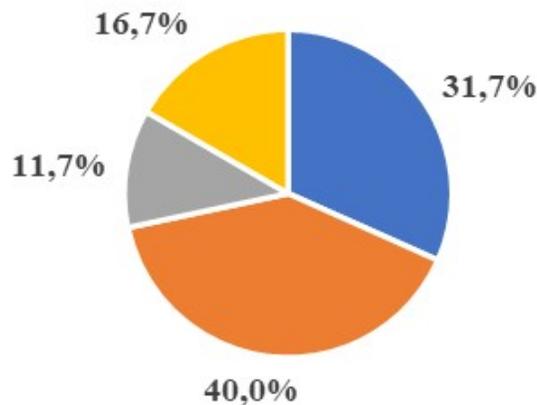**Using Social Media Makes Students More Involved in Learning**

Figure 10. Percentage Results From Question Number 10
Source: Research Documentation

Figure 10 shows that, among the 60 participants, 19 (31.7%) agreed and 24 (40%) strongly agreed that social media increases students' engagement in learning. A total of 43 of 60 (71.7%) participants believe that social media tools can promote deeper engagement and participation in the learning process. The high percentage of participants who agree that social media makes students more involved in learning suggests that social media tools can be used to create a more active and dynamic learning environment, in which students are encouraged to explore and experiment with new ideas and concepts.

175

In summary, the results of this study suggest that social media can be a valuable tool for enhancing the learning process by making it easier, more engaging, more interactive, more effective, more efficient, and more enjoyable. While there are concerns about potential drawbacks of social media, such as increased distraction or negative behavioral effects, these are generally outweighed by the benefits of using social media to promote deeper learning and engagement among students.

Discussion

Positive Impact of Social Media on Learning

The research results indicate that social media use can have several positive effects on the learning process. Participants agreed that using social media makes learning more interesting, fun, effective, and efficient. Additionally, social media can facilitate collaborative learning and peer feedback, thereby increasing learners' involvement and engagement. The positive impacts of social media on learning suggest that educators can use these platforms to enhance the learning experience, making it more engaging and interactive for students (Fukuda et al., 2022). In line with the statement that teachers have widely used social media as a learning resource that has a positive impact on students (Ansari & Khan, 2020; Haleem et al., 2022; Oguguo et al., 2020; Richter et al., 2022; Roemintoyo et al., 2020; Thaariq, 2020).

Potential Drawbacks of Social Media on Learning

Despite the positive effects of social media on learning, research also suggests potential drawbacks. Participants noted that using social media can make learning more complicated, decrease focus and discipline, and even make students more troublesome by facilitating cyberbullying and negative social interactions. These potential drawbacks highlight the need for educators and students to be mindful of the potential negative consequences of social media use in the classroom. To mitigate the potential drawbacks, it is important to set clear guidelines for social media use, monitor online behavior, and promote responsible use of these platforms. Overall, the research results suggest that social media can have both positive and negative impacts on the learning process (Allcott et al., 2019).

While social media can make learning more engaging and interactive, it is important to use these platforms responsibly and to ensure they do not distract from the learning process. By understanding the complex relationship between social media and learning, educators and students can harness the benefits of these platforms while mitigating their drawbacks. Social media is an effective tool in increasing student engagement with their academic and professional goals. Students who use social media as a digital portfolio are more likely to engage with their professional identity and career aspirations. It can also help students identify potential career paths and industries of interest. Social media can help students develop their communication skills by enabling them to articulate their skills and achievements more effectively and dynamically (Barrot, 2022; Lam, 2022; Papademetriou et al., 2022).

CONCLUSION

In conclusion, the results of this study indicate that social media tools can positively affect the learning process in several ways. The majority of participants agreed that social media makes learning more interesting, engaging, and effective. Specifically, social media was found to enhance the learning experience by making it more interactive, easier, and more efficient. Moreover, social media tools have the potential to increase student motivation and engagement in the learning process. However, it is important to acknowledge the potential risks associated with social media use in the classroom. A

minority of participants agreed that social media complicates learning and can make students more troublesome. Therefore, educators need to be mindful of the potential negative effects of social media use and take steps to mitigate these risks. This may involve setting clear expectations and guidelines for social media use, monitoring student behavior during social media activities, and providing guidance and support to students who may be struggling to stay focused or engaged. Overall, the findings of this study suggest that social media can be a valuable tool for enhancing the learning process, provided that educators are intentional and thoughtful in their use of these tools. As social media continues to play an increasingly important role in education, it will be important for educators to continue to explore and refine their use of these tools in the classroom to maximize their benefits while mitigating risks.

AUTHOR'S NOTE

The authors declare that there is no conflict of interest related to the writing or publication of this article. This article is purely the fruit of the author's thoughts, by adapting several reinforcing references so that the data and content in this article are free from plagiarism.

REFERENCES

Abney, A. K., Cook, L. A., Fox, A. K., & Stevens, J. (2019). Intercollegiate social media education ecosystem. *Journal of Marketing Education, 41*(3), 254-269.

Allcott, H., Gentzkow, M., & Yu, C. (2019). Trends in the diffusion of misinformation on social media. *Research And Politics, 6*(2), 1-8.

Ansari, J. A. N., & Khan, N. A. (2020). Exploring the role of social media in collaborative learning the new domain of learning. *Smart Learning Environments, 7*(1), 1-16.

Barrot, J. S. (2022). Social media as a language learning environment: a systematic review of the literature (2008-2019). *Computer Assisted Language Learning, 35*(9), 2534-2562.

Beyari, H. (2023). The relationship between social media and the increase in mental health problems. *International Journal of Environmental Research and Public Health, 20*(3), 1-11.

Carpenter, J. P., Morrison, S. A., Craft, M., & Lee, M. (2020). How and why are educators using Instagram?. *Teaching and Teacher Education, 96*(1), 1-14.

Cassidy, D. J., Mullen, J. T., Gee, D. W., Joshi, A. R. T., Klingensmith, M. E., Petrusa, E., & Phitayakorn, R. (2020). #SurgEdVidz: using social media to create a supplemental video-based surgery didactic curriculum. *Journal of Surgical Research, 256*(1), 680-686.

Chang, S. L., & Kabilan, M. K. (2022). Using social media as e-portfolios to support learning in higher education: a literature analysis. *Journal of Computing in Higher Education, 36*(1), 1-28.

El-Khoury, J., Haidar, R., Kanj, R. R., Bou Ali, L., & Majari, G. (2021). Characteristics of social media 'detoxification' in university students. *Libyan Journal of Medicine, 16*(1), 1-7.

Napitupulu, B. E., Herlina Karjo, C., & Hermawan, F. (2023). The effect of selling on social media on the profits of small businesses. *KnE Social Sciences, 1*(1), 161-172.

Farrell, O. (2020). From portafoglio to eportfolio: the evolution of portfolio in higher education. *Journal of Interactive Media in Education, 1*(1), 1-14.

Fukuda, S. T., Lander, B. W., & Pope, C. J. (2022). Formative assessment for learning how to learn: exploring university student learning experiences. *RELC Journal, 53*(1), 118-133.

Gordon, M. S., & Ohannessian, C. M. (2023). Social media use and early adolescents' academic achievement: variations by parent-adolescent communication and gender. *Youth and Society, 56*(4), 1-12.

Haleem, A., Javaid, M., Qadri, M. A., & Suman, R. (2022). Understanding the role of digital technologies in education: a review. *Sustainable Operations and Computers, 3*(1), 275-285.

Lam, R. (2022). E-portfolios for self-regulated and co-regulated learning: a review. *Frontiers in Psychology, 13*(1), 1-8.

Obeso, M., Pérez-Pérez, M., García-Piqueres, G., & Serrano-Bedia, A.-M. (2023). Enhancing students' learning outcomes through smartphones: a case study of using instagram in higher management education. *The International Journal of Management Education, 21*(3), 1-15.

Oguguo, B. C., Ajuonuma, J. O., Azubuike, R., Ene, C. U., Atta, F. O., & Oko, C. J. (2020). Influence of social media on students' academic achievement. *International Journal of Evaluation and Research in Education (IJERE), 9*(4), 1000-1009.

Papademetriou, C., Anastasiadou, S., Konteos, G., & Papalexandris, S. (2022). COVID-19 pandemic: the impact of the social media technology on higher education. *Education Sciences, 12*(4), 1-26.

Ningsih, V. R., & Rahyuni, V. S. (2023). Analisis penggunaan smartphone dan stres dengan kejadian insomnia pada mahasiswa kesehatan masyarakat Universitas Jambi. *Jurnal Kesmas Jambi, 7*(1), 49-54.

Richter, E., Carpenter, J. P., Meyer, A., & Richter, D. (2022). Instagram as a platform for teacher collaboration and digital social support. *Computers and Education, 190*(1), 1-18.

Roemintoyo, R., Muhammad, A. S., & Budiarto, M. K. (2020). The use of social media as learning tools in the era of 4.0 for elementary school. *International Journal of Multicultural and Multireligious Understanding, 7*(11), 67-77.

Shelton, C. C., Curcio, R., Carpenter, J. P., & Schroeder, S. E. (2022). Instagramming for justice: the potentials and pitfalls of culturally relevant professional learning on Instagram. *TechTrends, 66*(5), 837-854.

Sivakumar, A., Jayasingh, S., & Shaik, S. (2023). Social media influence on students' knowledge sharing and learning: an empirical study. *Education Sciences, 13*(7), 745-756.

Thaariq, Z. Z. A. (2020). The use of social media as learning resources to support the new normal. *Teknodika, 18*(2), 80-93.

van Bommel, J., Randahl, A.-C., Liljekvist, Y., & Ruthven, K. (2020). Tracing teachers' transformation of knowledge in social media. *Teaching and Teacher Education, 87*(1), 1-10.

Van Den Beemt, A., Thurlings, M., & Willems, M. (2020). Towards an understanding of social media use in the classroom: a literature review. *Technology, Pedagogy and Education, 29*(1), 35-55.

van Oosten, J. M. F., Vandenbosch, L., & Peter, J. (2023). Predicting the use of visually oriented social media: the role of psychological well-being, body image concerns and sought appearance gratifications. *Computers in Human Behavior, 144*(1), 1-13.

Vasco Delgado, J. C., Ortiz Chimbo, K. M., Ruiz Muñoz, G. F., Romero Amores, N. V., Macas Padilla, B. A., & Yépez González, D. A. (2023). E-portfolio as a support for teaching practice at the University of Guayaquil. *International Humanities Review / Revista Internacional de Humanidades, 21*(1), 213-219.

Walland, E., & Shaw, S. (2022). E-portfolios in teaching, learning and assessment: tensions in theory and praxis. *Technology, Pedagogy and Education, 31*(3), 363-379.