Exploring Social Media Use Integration Based on Educational Level Among Emerging Adults

Vania Ardelia*[1], Siti Jaro'ah[2]
[1,2] Universitas Negeri Surabaya, Surabaya, Indonesia

ABSTRACT

Objective: Social media has become integral to everyday life, including among emerging adults. Surveys showed that Instagram has become one of emerging adults' most popular social media. Social media could facilitate emerging adult developmental tasks, such as identity exploration. Further, social media uses integration concepts to explore how individuals build emotional connections and involve social media in their daily social routines. Additionally, it is essential to view social media use integration based on educational background. This study explored differences in social media use integration among emerging adults based on education level. **Method:** A cross-sectional study design was conducted among 305 men and women emerging adults. Participants completed a self-administered questionnaire comprising demographic characteristics and a Social Media Use Integration scale. Data were analyzed using descriptive analysis and one-way ANOVA statistic technique. **Results:** Descriptive analysis results showed that individuals with a high school education level had the highest social media use integration scores compared to groups from other education levels. Further, education level notably contributed to the score difference in social media use integration among emerging adults. **Novelty:** This study contributed to exploring further the social media use integration among emerging adults, specifically in the context of educational background.

INTRODUCTION

Social media has significantly allowed humans to create more effective and efficient communication. Through social media, individuals may have easier access to maintain interpersonal relationships with their closest relatives (Khan et al., 2022). Social media has also become an integral part of everyday life. Statista reported that in early January 2023, over 4.76 billion (59.40%) of the world's population accessed the internet using social media. Specifically in Indonesia, social media users continue to increase and are predicted to reach more than 267 million users by 2028 (Degenhard, 2023). This increased number of social media users coincides with the increased types of social media platforms offered, with Instagram being one of the most popular.

In early 2023, there were more than 2 billion active Instagram users worldwide, with Indonesia ranked 4th as the country with the most Instagram users. Further, it was recorded that 33.80% of Indonesia's population actively uses Instagram, with more than half (52.20%) being female. Moreover, most Instagram users in Indonesia were emerging adults, with a percentage of 38.00%. Emerging adults are individuals between the ages of 18 and 29 years, and this stage of development is known as an exploratory phase, which allows individuals to explore their interests and desires in life (Ardelia & Dewi, 2018). This exploration, therefore, must be connected to the active use of social media, where emerging adults were the group with the highest number of users who used the internet, owned smart devices, and actively used social media. Moreover, social media has become

an essential aspect of the lives of emerging adults as a way of forming their identities and building social relationships (Bjornsen, 2018).

The proximity of social media to everyday life brought both positive and negative impacts on its users. The existence of social media provided a more diverse source of entertainment, a means of information, and a means of establishing communication and relationships with others (Ostic et al., 2021). Social media also encouraged collective behavior through group communication that helped build individual self-identity (Dhir et al., 2018). Aside from its benefits, social media such as Instagram also brought negative impacts, namely addiction, loneliness, depression, social isolation, and social anxiety (Chotpitayasunondh & Douglas, 2016; Dhir et al., 2018; Reer et al., 2019; Swar & Hameed, 2017; van den Eijnden et al., 2016). Further, studies showed that higher intensity in media social usage could lead to a higher propensity for individuals to make social comparisons, which then causes decreased self-esteem. In turn, high social comparison and low self-esteem can lead to social anxiety in an individual (Jiang & Ngien, 2020). Similarly, Instagram usage is also associated with a tendency to dissatisfaction with body image and eating disorders (Faelens et al., 2021), which usually results from upward social comparison to social media influencers (Pedalino & Camerini, 2022).

Numerous studies have examined the use of social media, especially Instagram, and its association with individual psychological concepts such as psychological well-being (Ostic et al., 2021; Trifiro, 2018), self-esteem (Paramboukis et al., 2016; Widjajanta et al., 2018), social comparison (Stapleton et al., 2017), social anxiety (Jiang & Ngien, 2020) and the influence of social media use on mental health in general (Karim et al., 2020). However, these studies only measured the frequency and duration of Instagram use but did not involve aspects of emotional connection and Instagram involvement in individuals' social routines. Therefore, Social Media Use Integration refers to individuals' ability to incorporate social media into their typical routines and how people are emotionally attached to the social media platform(s). Further, they also developed a scale to measure these concepts. Social media use integration concepts could provide a more rigorous measure of how people integrate and utilize social media into their daily lives. Currently, most of the studies related to the context of social media use integration came from Western countries which are developed countries. Thus, research in developing countries, especially in Indonesia, remained scarce.

The integrative use of social media among emerging adults is also inseparable from the context of education, in which emerging adults usually still undergo a certain level of education. Especially nowadays, technology, including social media, is implemented in the learning processes in the classroom (Al-Rahmi et al., 2022a) and is perceived to have both positive and negative impacts, depending on the type of social media used (Xu et al., 2023). Various studies have explored the use of social media in educational contexts and found that the use of social media can improve the quality of learning in students (Al-Rahmi et al., 2022b; Ansari & Khan, 2020; Chawinga, 2017; Van Den Beemt et al., 2020). Utilizing social media in collaborative learning allows students to become more creative, dynamic, and research-oriented (Ansari & Khan, 2020), and obtain better exam scores (Javaeed et al., 2020). Especially with the COVID-19 pandemic, social media has become highly used to support learning (Alismaiel et al., 2022; Sengupta & Vaish, 2023).

However, to the best of the researcher's knowledge, only a few studies have focused on exploring individuals' ability to use social media integratively based on their level of education. Previous studies have focused on student achievement in the learning process,

which utilized social media. Nevertheless, the students' social media use integration has yet to be the research focus. Since each level of education has different dynamics and demands, it impacts each individual differently. The capacity level of social media use integration based on the education level is the research focus, which is expected to be the basis for further research focusing on students' capacity and the utilization of social media in the learning process.

To conclude, this research aimed to explore differences in the social media use integration among emerging adults based on education level. The social media platform used in this study was Instagram, as several previous studies found that image-based social media, such as Instagram, was most favored and used by emerging adults (Bjornsen, 2018). The social media use integration itself refers to the emotional connections formed by using Instagram social media and the involvement of using social media as part of an individual's social routine. Several research questions of this study included:

1. What is the level of integrative social media use among emerging adults?
2. Is there a significant difference in the SMUIS scores of emerging adults based on education level?

RESEARCH METHOD

General background of research

The current study used a quantitative research design with a cross-sectional survey data collection method. Online data collection was conducted through Google form with the Social Media Use Integration scale. Participants were asked to read the description and instructions of the questionnaire and then provided consent to participate in the study before completing the survey. Ethical approval was obtained from The Board of Ethics, Faculty of Psychology, Universitas Airlangga, before the study (Number 2806-KEPK).

Participants

The research participants were selected by an accidental sampling method, in which participants who fit the inclusion criteria could voluntarily choose to become participants or not. Participants' inclusion criteria were 1) aged between 18-29 years old, 2) owning and using Instagram, and 3) residing in Indonesia. Before data collection, researchers calculated the sample size needed in this study using G*Power. Based on the G*Power calculation formula, it is estimated that at least 82 participants are required to obtain a power of 0.8 and a moderate effect size. However, the researcher targeted a minimum of 100 participants due to the generality of the research criteria.

Instrument and Procedures

Two instruments were used in this study, namely the socio-demographic scale and the Social Media Use Integration scale. The socio-demographic scale contains questions about participants' personal data information such as name (initials allowed), age (with options from 18 to 29 years), gender, regional origin (city/district), and education level (junior high school, high school, undergraduate, graduate, doctoral).

The Social Media Use Integration Scale (SMUIS) measures the integration between social media use and individual social behaviors and routines. This scale consists of two dimensions with a total of 10 items. The social integration and emotional connection dimension had six items (e.g., "I would like it if everyone used Instagram to

communicate"), and the integration to social routines (ISR) dimension consisted of four items (e.g., "Using Instagram is part of my everyday routine"). A Likert rating scale with a score range of 1 "Strongly disagree" to 5 "Strongly agree" was used. One item required reverse scoring before calculating the total score. High-scoring participants indicated high intensity and integration of social media use and social routines.

Data Analysis
Data analysis was carried out with the Jamovi program for macOS version 2.3.21. Data was analyzed using descriptive statistics analysis and the One-Way ANOVA technique to answer the research questions. These analyses were conducted to obtain information regarding participants' demographic characteristics and whether any differences in SMUIS results occurred based on education level.

RESULTS AND DISCUSSION
Results
Demographic Characteristics
Table 1 shows the demographic characteristics of the study participants. There were 305 participants involved in this study, of which 80.33% were female (n = 245), and the rest were male (n = 60). The age of participants varied from 18 to 29 years old, with a mean age of 21 years old. Regarding educational background, the majority of participants (68.85%) had a high school education, 26.56% had a bachelor's degree, 4.26% had a master's degree, and the rest had a doctoral degree (0.33%).

Table 1. Participants' demographic characteristics.

Demographic	N	Percentages	M
Age 18-29 years old	305	100.00	21
Sex			
Male	60	80.33	29.6
Female	245	19.67	30.3
Education			
High school	210	68.85	30.7
Bachelor degree	81	26.56	29.2
Master degree	13	4.26	28.2
Doctoral Degree	1	0.33	14

Descriptives Analysis
Descriptive analysis of SMUIS in participants was carried out in several ways, the first is based on gender, then based on the level of education as described in Table 2. Subsequently, a differential analysis test of SMUIS level based on education level was also conducted. Based on gender, it is known that women tend to have a higher ability to use social media integratively (M = 30.30) than men (M = 29.60). Furthermore, from the level of education, it was found that participants with a high school educational background had the highest ability to use social media integratively (M = 30.70), followed by participants with bachelor education (M = 29.20), then master education (M = 28.20) and doctoral education (M = 14).

Table 2. Participants SMUIS descriptives analysis.

Demographic	M	SD
Age 18-29 years old	21	3.20
Sex		
Male	29.6	6.80
Female	30.3	6.80
Education		
High school	30.7	6.40
Bachelor degree	29.2	7.40
Master degree	28.2	7.60
Doctoral Degree	14	NaN*

*Not available number

Table 3 showed differences in SMUIS results based on education level among participants. Findings showed significant differences in SMUIS based on education level ($F(3, 301) = 145$, $p = 0.024$, $\omega^2 = 0.021$). These findings suggest that educational level contributed to the integration of social media use among emerging adults.

Table 3. Differences in SMUIS based on education level.

	Sum of Squares	df	Mean Square	F (*pdf*)	*p*	η^2p	ω^2
Education	435	3	145	3.20 (3)	0.024	0.031	0.021
Residuals	`13619	301	45.2				

Discussion

This study aimed to obtain a descriptive analysis of social media use integration among emerging adults and explore differences in the ability to use social media integratively based on education level. Descriptive analysis showed that high school education groups had the highest social media use integration results compared to other education levels. Based on the ANOVA test results, education level notably contributed to the score difference in social media use integration among emerging adults. This suggests that the ability to form emotional connections to social media and the involvement of using social media as part of an individual's social routine is associated with the individual's educational background (Anastasiei et al., 2023; Bekalu et al., 2019).

Descriptive analysis showed that individuals with a high school education level had the highest SMUI scores compared to groups from other education levels. These findings suggested that individuals with a high school level of education are more able to use social media more integratively in their daily routines. Individuals with high school backgrounds were entering the early emerging adult period, and at this stage of development, social connections were considered an important aspect. Furthermore, it has been known that people in high school education are currently on identity exploration, and social media is deemed a suitable medium to facilitate this exploration (Dennen et al., 2020; Gandolfi et al., 2021; Zhang et al., 2022). The explorations include seeking validation for their thoughts and experiences, which emerging adults perceived social media platforms could provide. Additionally, according to social identity gratification, early emerging adults use social media in an integrated manner, as they see

it as a tool to satisfy social identity needs. Social media have been known both as a tool and a place to enhance positive self-image.

In education, using social media in the era of technological development was inevitable. Especially during the COVID-19 pandemic, which required learning to be conducted online, integrating social media into education became the primary choice. Consequently, participants with high school education have become accustomed to implementing social media in educational contexts. Learning that uses technology, including social media, enhances students' learning experience and facilitates the sharing of information and knowledge from teachers to students (Al-Rahmi et al., 2022). On top of that, teachers were starting to utilize social media as part of the learning processes such as providing announcements, assignment submission, class schedule negotiation, and class discussion (Kara et al., 2020). This may also be the case for individuals with undergraduate education backgrounds who are currently undergoing postgraduate education, albeit at a lower intensity than participants at the high school level who are currently undergoing undergraduate studies.

Social media has also become an essential medium for collaborative learning in the digital era (Ansari & Khan, 2020; Liu et al., 2022). A study conducted by Ansari & Khan (2020) found that the use of social media in collaborative learning impacts the interaction between teachers and students as well as between students and affects students' attachment to learning, which could improve academic performance. Additionally, the use of social media in collaborative learning facilitates students to be more creative. Similarly, a study conducted by Liu et al. (2022) also found that collaboration on social media could provide learning media that improves study performance. These benefits have made the use of social media in education more massive.

The personal need to use social media as a place to build relationships, combined with the encouragement to use social media as a means of collaborative learning in the realm of education, makes the ability to use social media integratively in those at the high school education level higher than groups from other education levels. Moreover, participants with high school education levels were digital natives who were born and grew up in the midst of social media development. Thus, it is uncommon for them to be familiar with using social media daily. It is also understandable that emerging adults are socially and emotionally attached to social media and also have a higher ability to integrate social media into their daily routines. Furthermore, it is essential to note that social media use can positively and negatively affect students (Chen & Xiao, 2022). Individuals who are more equipped to use social media in an integrated way might be better at coping with the negative impacts of social media. However, teachers' role in the learning process is still crucial, as they are the ones who can regulate the extent to which social media will be utilized to avoid negative impacts. The role of educators in the learning process that utilizes social media can be the subsequent research.

CONCLUSION
Fundamental Finding: A marked score difference in social media use integration based on educational level was found. Participants with a high school education background could integrate social media use into their daily routines more than other education levels. **Implication:** This study's results imply that the increased use of social media in educational contexts should be integrated into the learning processes to create a collaborative learning experience. **Limitation:** This study had strengths and limitations.

The study's strengths were the fair number of participants and the detailed distribution of educational levels ranging from high school to doctoral level. The weakness referred to the unbalanced distribution of participants from each educational level and the usage of self-report measurement, which could lead to potential bias in the subjects' responses. This study also did not involve additional potential variables that could affect the association between social media use integration and educational level. **Future Research:** Future research should comparatively examine students' achievement and psychological impact based on the level of social media use integration. It also explores the influence of social media integration on psychological aspects in other contexts, such as the workplace and cultural contexts.

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REFERENCES
Alismaiel, O. A., Cifuentes-Faura, J., & Al-Rahmi, W. M. (2022). Social media technologies used for education: An empirical study on TAM model during the COVID-19 pandemic. *Frontiers in Education*, *7*, 1-10. https://doi.org/10.3389/feduc.2022.882831

Al-Rahmi, A. M., Shamsuddin, A., Wahab, E., Al-Rahmi, W. M., Alyoussef, I. Y., & Crawford, J. (2022a). Social media use in higher education: Building a structural equation model for student satisfaction and performance. *Frontiers in Public Health*, *10,* 1-15. https://doi.org/10.3389/fpubh.2022.1003007

Al-Rahmi, W. M., Yahaya, N., Alturki, U., Alrobai, A., Aldraiweesh, A. A., Omar Alsayed, A., & Kamin, Y. B. (2022b). Social media – based collaborative learning: The effect on learning success with the moderating role of cyberstalking and cyberbullying. *Interactive Learning Environments*, *30*(8), 1434–1447. https://doi.org/10.1080/10494820.2020.1728342

Anastasiei, B., Dospinescu, N., & Dospinescu, O. (2023). Word-of-mouth engagement in online social networks: influence of network centrality and density. *Electronics*, *12*(13), 2857. https://doi.org/10.3390/electronics12132857

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. https://doi.org/10.1186/s40561-020-00118-7

Ardelia, V., & Dewi, T. K. (2018). Intensi berhenti merokok pada wanita emerging adult ditinjau dari prediktor theory of planned behavior. *INSAN Jurnal Psikologi dan Kesehatan Mental*, *2*(2), 111-119. https://doi.org/10.20473/jpkm.V2I22017.111-119

Bekalu, M. A., McCloud, R. F., & Viswanath, K. (2019). Association of social media use with social well-being, positive mental health, and self-rated health: Disentangling routine use from emotional connection to use. *Health Education and Behavior*, *46*, 69–80. https://doi.org/10.1177/1090198119863768

Bjornsen, C. (2018). *Social media use and emerging adulthood*. Znanstvena založba Filozofske fakultete.

Chawinga, W. D. (2017). Taking social media to a university classroom: Teaching and learning using Twitter and blogs. *International Journal of Educational Technology in Higher Education*, *14*(1), 1-19. https://doi.org/10.1186/s41239-017-0041-6

Chen, M., & Xiao, X. (2022). The effect of social media on the development of students' affective variables. *Frontiers in Psychology, 13*, 1–8. https://doi.org/10.3389/fpsyg.2022.1010766

Chotpitayasunondh, V., & Douglas, K. M. (2016). How "phubbing" becomes the norm: The antecedents and consequences of snubbing via smartphone. *Computers in Human Behavior*, *63*, 9–18. https://doi.org/10.1016/j.chb.2016.05.018

Degenhard, J. (2023). *Social media users in Indonesia 2019-2028*. https://www.statista.com/statistics/617136/digital-population-worldwide/

Dennen, V. P., Choi, H., & Word, K. (2020). Social media, teenagers, and the school context: A scoping review of research in education and related fields. *Educational Technology Research and Development*, *68*(4), 1635–1658. https://doi.org/10.1007/s11423-020-09796-z

Dhir, A., Yossatorn, Y., Kaur, P., & Chen, S. (2018). Online social media fatigue and psychological wellbeing—A study of compulsive use, fear of missing out, fatigue, anxiety and depression. *International Journal of Information Management*, *40*, 141–152. https://doi.org/10.1016/j.ijinfomgt.2018.01.012

Faelens, L., Hoorelbeke, K., Cambier, R., van Put, J., Van de Putte, E., De Raedt, R., & Koster, E. H. W. (2021). The relationship between Instagram use and indicators of mental health: A systematic review. *Computers in Human Behavior Reports*, *4*, 1-21. https://doi.org/10.1016/j.chbr.2021.100121

Gandolfi, E., Ferdig, R. E., & Kratcoski, A. (2021). A new educational normal an intersectionality-led exploration of education, learning technologies, and diversity during COVID-19. *Technology in Society*, *66*, 1-8. https://doi.org/10.1016/j.techsoc.2021.101637

Javaeed, A., Kibria, Z., Khan, Z., & Ghauri, S. K. (2020). Impact of social media integration in teaching methods on exam outcomes. *Advances in Medical Education and Practice, 11,* 53–61. https://doi.org/10.2147/AMEP.S209123

Jiang, S., & Ngien, A. (2020). The effects of instagram use, social comparison, and self-esteem on social anxiety: A survey study in singapore. *Social Media + Society*, *6*(2), 1-10. https://doi.org/10.1177/2056305120912488

Kara, N., Çubukçuoğlu, B., & Elçi, A. (2020). Using social media to support teaching and learning in higher education: An analysis of personal narratives. *Research in Learning Technology*, *28,* 1-16. https://doi.org/10.25304/rlt.v28.2410

Karim, F., Oyewande, A. A., Abdalla, L. F., Chaudhry Ehsanullah, R., & Khan, S. (2020). Social media use and its connection to mental health: A systematic review. *Cureus*, *12,* 1-19 https://doi.org/10.7759/cureus.8627

Khan, N. A., Azhar, M., Rahman, M. N., & Akhtar, M. J. (2022). Scale development and validation for usage of social networking sites during COVID-19. *Technology in Society*, *70*, 1-20. https://doi.org/10.1016/j.techsoc.2022.102020

Liu, S., Zaigham, G. H. K., Rashid, R. M., & Bilal, A. (2022). Social media-based collaborative learning effects on student performance/learner performance with moderating role of academic self-efficacy. *Frontiers in Psychology*, *13,* 1-18. https://doi.org/10.3389/fpsyg.2022.903919

Ostic, D., Qalati, S. A., Barbosa, B., Shah, S. M. M., Galvan Vela, E., Herzallah, A. M., & Liu, F. (2021). Effects of social media use on psychological well-being: A mediated model. *Frontiers in Psychology*, *12,* 1-19. https://doi.org/10.3389/fpsyg.2021.678766

Paramboukis, O., Skues, J., & Wise, L. (2016). An exploratory study of the relationships between narcissism, self-esteem and instagram use. *Social Networking*, *5*, 82–92. https://doi.org/10.4236/sn.2016.52009

Pedalino, F., & Camerini, A. L. (2022). Instagram use and body dissatisfaction: The mediating role of upward social comparison with peers and influencers among young females. *International Journal of Environmental Research and Public Health*, *19*(3), 1-18. https://doi.org/10.3390/ijerph19031543

Reer, F., Tang, W. Y., & Quandt, T. (2019). Psychosocial well-being and social media engagement: The mediating roles of social comparison orientation and fear of missing out. *New Media & Society*, *21*(7), 1486–1505. https://doi.org/10.1177/1461444818823719

Sengupta, S., & Vaish, A. (2023). A study on social media and higher education during the COVID-19 pandemic. *Universal Access in the Information Society*, 1-19. https://doi.org/10.1007/s10209-023-00988-x

Stapleton, P., Luiz, G., & Chatwin, H. (2017). Generation validation: The role of social comparison in use of instagram among emerging adults. *Cyberpsychology, Behavior, and Social Networking*, *20*, 142–149. https://doi.org/10.1089/cyber.2016.0444

Swar, B., & Hameed, T. (2017). Fear of missing out, social media engagement, smartphone addiction and distraction: Moderating role of self-help mobile apps-based interventions in the youth: *Proceedings of the 10th International Joint Conference on Biomedical Engineering Systems and Technologies*, 139–146. https://doi.org/10.5220/0006166501390146

Trifiro, B. (2018). *Instagram use and its effect on well-being and self-esteem*. Thesis. Bryant Digital Repository.

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. https://doi.org/10.1080/1475939X.2019.1695657

van den Eijnden, R. J. J. M., Lemmens, J. S., & Valkenburg, P. M. (2016). The social media disorder scale. *Computers in Human Behavior*, *61*, 478–487. https://doi.org/10.1016/j.chb.2016.03.038

Widjajanta, B., Senen, S., Masharyono, M., Lisnawati, L., & Anggraeni, C. (2018). The impact of social media usage and self-esteem on conspicuous consumption: Instagram user of Hijabers Community Bandung member. *International Journal of EBusiness and EGovernment Studies*, *10*, 1–13.

Xu, T., Gao, Q., Ge, X., & Lu, J. (2023). The relationship between social media and professional learning from the perspective of pre-service teachers: A survey. *Education and Information Technologies,* 1-26. https://doi.org/10.1007/s10639-023-11861-y

Zhang, H., Lee, I., Ali, S., DiPaola, D., Cheng, Y., & Breazeal, C. (2022). Integrating ethics and career futures with technical learning to promote AI literacy for middle school students: An exploratory study. *International Journal of Artificial Intelligence in Education*, *33*(2), 290–324. https://doi.org/10.1007/s40593-022-00293-3

*Vania Ardelia, S.Psi., M.Sc. (Corresponding Author)
Department of Psychology Faculty of Education,
Universitas Negeri Surabaya,
Jl. Lidah Wetan, Surabaya, East Java, 60213, Indonesia
Email: vaniaardelia@unesa.ac.id

Siti Jaro'ah, S.Psi., M.A.
Department of Psychology Faculty of Education,
Universitas Negeri Surabaya,
Jl. Lidah Wetan, Surabaya, East Java, 60213, Indonesia
Email: sitijaroah@unesa.ac.id