# Exploring the Link between Teachers' Social Media Practices and Classroom Engagement Strategies: Input for a Web-Based Teaching-Learning Interactive Hub

**Shaed Bautista, Dr. Ryan B. Sanchez**

**Pamantasan Ng Lungsod Ng Valenzuela, Master of Arts in Education, Major in Educational Management**

## ABSTRACT

This study aimed to identify the relationship between the usage of social media by teachers and their classroom engagement strategies. It examined how platforms such as Facebook, YouTube, TikTok, and Google Classroom influence instructional methods, interactive practices, and student motivation. Utilizing a quantitative, comparative-correlational design, the study surveyed 100 teachers and 348 students from Malinta National High School. Results revealed a statistically significant relationship between teachers' social media use and classroom engagement strategies ($p = 0.031$). These findings inform the development of a web-based interactive teaching resource to support instructional practices and student participation.

**Keywords:** Social Media, Classroom Engagement, Teacher Practices, Instructional Strategies, Educational Technology, Quantitative Research

## INTRODUCTION

The increasing integration of technology in education has transformed traditional teaching methods into more interactive and student-centered approaches. Social media platforms have emerged as powerful tools in education, allowing teachers to share resources, engage students, and build collaborative learning environments.

Despite these benefits, the structured integration of social media into pedagogical practices—especially in the Philippine public secondary school context—remains inconsistent. Many teachers struggle to utilize these tools effectively for classroom engagement. Furthermore, existing research often overlooks students' perspectives on the effectiveness of social media in instruction.

This study explores the link between teachers' social media practices and their classroom engagement strategies. It incorporates both teacher and student perspectives and aims to inform the design of a web-based interactive hub that will serve as a guide for technology-enhanced teaching and learning.

Research Questions: 1. What is the demographic profile of teacher-respondents in terms of age, sex, educational attainment, and years of experience? 2. What is the frequency, purpose, and platform preference of teachers' social media use? 3. Is there a significant difference in social media usage when grouped according to demographic variables? 4. How do students perceive their teachers' use of social media? 5. What are the perceived effects of social media usage on classroom engagement? 6. Is there a significant relationship between teachers' social media use and their engagement strategies?

Hypotheses: - $H_{01}$: There is no significant difference in teachers' social media usage when grouped by profile. - $H_{02}$: There is no significant relationship between teachers' social media use and classroom engagement strategies.

# METHODS

## Research Design:

This study employed a quantitative, comparative-correlational design to assess the relationship between social media usage and classroom engagement strategies among teachers.

## Locale and Participants:

The research was conducted at Malinta National High School in Valenzuela City. The study involved 100 teachers who actively use social media in teaching, and 348 students who evaluated their teachers' use of digital tools.

## Sampling Technique:

Stratified random sampling was used to ensure proportional representation based on subject specialization.

## Instrument:

A validated survey questionnaire was used, divided into demographics, social media usage, and classroom engagement. Cronbach's Alpha scores indicated high reliability (overall alpha = 0.853 for teachers; 0.926 for students).

## Data Collection Procedure:

Data were collected via Google Forms and hard copies. Responses were anonymized and stored securely. Ethical clearance and consent were obtained.

## Statistical Tools:

- Frequency and Percentage - Weighted Mean - Chi-Square Test of Homogeneity and Independence - Cramér's V

# RESULTS

Key findings include: - Most teachers (80%) frequently use social media for instructional purposes. - Facebook and YouTube were the most preferred platforms. - A significant relationship exists between social media use and engagement strategies ($p = 0.031$). - Students perceived that social media enhances interactive discussion, collaborative work, and multimedia integration. - Teachers with higher educational attainment and more years of experience showed distinct patterns in platform usage.



**Preferred Social Media Platform Usage by Teachers**
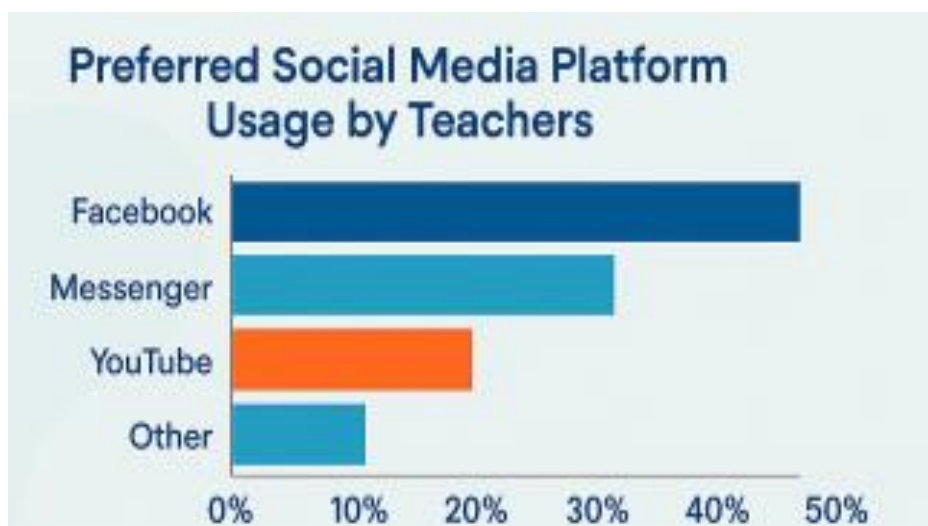
## DISCUSSION

The conceptual model of the proposed hub consists of three interconnected components: the Teacher Dashboard, Student Interface, and Social Media-Integrated Platform. The dashboard supports lesson planning and analytics, the interface provides access to learning materials, and the platform enables collaboration and engagement.
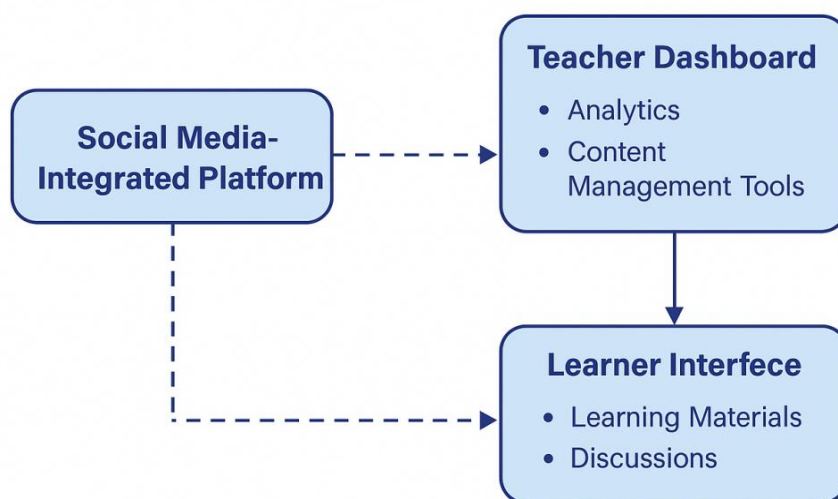


**Figure 1. Conceptual Model of the Proposed Web-Based Teaching-Learning Interactive Hub**

Figure 1. Conceptual Model of the Proposed Web-Based Teaching-Learning Hub

Findings support the integration of social media into classroom strategies to enhance student engagement. The results align with the TPACK framework, suggesting that technological knowledge when combined with pedagogical and content knowledge enriches instructional delivery. Bandura's Social Learning Theory and Vygotsky's Social Constructivism also support the social and collaborative aspects of learning via digital platforms.

The positive perception of students underscores the need to formalize the use of social media in teaching through training, policy guidelines, and a supportive digital infrastructure. The study recommends the development of a web-based interactive teaching-learning hub, tailored to the needs of Filipino secondary school teachers.

**Potential Barriers to Adoption**

Despite the advantages, several challenges may hinder the integration of social media in teaching. These include digital illiteracy among educators, unreliable internet access, privacy concerns, and resistance to change. To address these, the study suggests implementing professional development, strengthening ICT infrastructure, and establishing clear school-level guidelines.

## Ethical Considerations

In conducting this study, the researcher ensured that participants' privacy and informed consent were respected. Responsible use of social media platforms was emphasized, particularly in protecting student identities, avoiding cyberbullying, and maintaining professional boundaries.

# CONCLUSION

Teachers' social media usage significantly correlates with their classroom engagement strategies. Social media platforms, when used appropriately, offer promising avenues for increasing student interaction, collaboration, and motivation. Institutional support and structured training are essential for sustainable integration.

# REFERENCES

1. Aguilar, S. J., Rosenberg, J. M., Greenhalgh, S. P., Fütterer, T., Lishinski, A., & Fischer, C. (2021). A different experience in a different moment? Teachers' social media use before and during the COVID-19 pandemic. Journal of Technology and Teacher Education, 29(3), 347–371. https://doi.org/10.1177/23328584211063898
2. Alabdulkareem, S. A. (2021). The impact of social media on learning: A study among university students in Saudi Arabia. Education and Information Technologies, 26(3),3021–3037. https://doi.org/10.1007/s10639-020-10413-
3. Alalwan, N. (2022). Actual use of social media for engagement to enhance students' learning. Education and Information Technologies, 27, 9767–9789. https://doi.org/10.1007/s10639-022-11014-7
4. Alalwan, N. (2022). Actual use of social media for engagement to enhance students' learning. Education and Information Technologies, 27(7), 9767–9789. https://doi.org/10.1007/s10639-021-10759-8
5. Aldosemani, T. (2020). The use of multimedia technologies in teaching and learning in Saudi higher education: A case study. International Journal of Emerging Technologies in Learning (iJET), 15(5), 58–67. https://doi.org/10.3991/ijet.v15i05.11606
6. 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, 7:882831. https://doi.org/10.3389/feduc.2022.882831
7. Aliyyah, R. R., & Sari, N. W. (2020). The role of social media in student engagement during online learning. Journal of Educational Research and Evaluation, 4(3),234–241. https://doi.org/10.23887/jere.v4i3.27773
8. Alonzo, D., Oo, C. Z., Wijarwadi, W., & Hannigan, C. (2023). Using Social Media for Assessment Purposes: Practices and Future Directions. Frontiersin Psychology, 13:1075818. https://doi.org/10.3389/fpsyg.2022.1075818
9. Alshammari, R., & Ahmad, M. (2021). Exploring the impact of social media on collaborative learning in higher education. International Journal of Emerging Technologies in Learning, 16(12), 75–87. https://doi.org/10.3991/ijet.v16i12.21817
10. Al-Ali, S. (2021). The impact of social media-based multimedia on student learning engagement. International Journal of Educational Technology in Higher Education, 18(1), 45–58. https://doi.org/10.1186/s41239-021-00273-3
11. Al-Rahmi, W. M., & Zeki, A. M. (2017). A model of using social media for collaborative learning to enhance learners' performance on learning. Journal of King Saud University - Computer and Information Sciences,29(4),526–535. https://doi.org/10.1016/j.jksuci.2016.06.002
12. Al-Maroof, R. A. S., Alshurideh, M. T., Hassanien, A. E., & Almaiah, M. A. (2021). Factors that affect e-learning platforms after the spread of COVID-19: Post acceptance study. Educational Information Technology, 26, 1–25. https://doi.org/10.1007/s10639-021-10557-1
13. Amalia, M., & Fauzan, R. (2021). Enhancing student engagement through social media integration in classroom activities. International Journal of Emerging Technologies in Learning, 16(7), 123–130. https://doi.org/10.3991/ijet.v16i07.21235
14. Andres, R. J., & Luna, M. C. (2021). Social media as an avenue for professional growth among public school teachers. Asian Journal of Educational Research, 9(2), 112–125.

15. Aydoğmuş, M., Tut, E., & Karadağ, Y. (2023). Teachers' Experiences Regarding the Use of Social Media for Educational Purposes. International Journal of Psychology and Educational Studies, 10(1), 69-82. https://dx.doi.org/10.52380/ijpes.2023.10.1.855

16. Balakrishnan, V., & Gan, C. L. (2020). Students' learning styles and their effects on the use of social media technology for learning. Education and Information Technologies, 25(4), 3433–3452. https://doi.org/10.1007/s10639-020-10188-5

17. Baran, E., AlZoubi, D., & Flores, R. (2021). Enhancing student voice and participation through social media: A case study of online discussion platforms. Journal of Educational Technology Systems, 49(4), 490–510. https://doi.org/10.1177/00472395211001124

18. Bloomfield, J., & Fisher, M. J. (2021). Quantitative research design. InternationalJournalof Nursing Practice,27(1),e12899. https://doi.org/10.1111/ijn.12899

19. Cabero-Almenara, J., Romero-Tena, R., & Palacios-Rodríguez, A. (2021). Multimedia tools in the educational process: The flipped classroom. Education Sciences, 11(4), 142. https://doi.org/10.3390/educsci11040142

20. Cayubit, R. F. (2021). Social media as an educational tool in the Philippines: The students' perspective. International Journal of Educational Management and Development Studies, 2(1), 45–57. https://doi.org/10.53378/345195

21. 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(3), 1–19. https://doi.org/10.1186/s41239-017-0041-6

22. Cruz, F. M., & Manuel, L. M. (2020). Influence of graduate education on teachers' pedagogical practices in the Philippines. Asian Journal of Educational Research and Policy, 12(2), 45–57.

23. Cruz, R. L., & Salazar, T. P. (2022). The impact of social media tools on student engagement in senior high school classes in Metro Manila. Journal of Philippine Educational Technology, 5(2), 55–69.

24. Chen, X., Wang, J., Jin, L., & Zhang, Y. (2024). Social media use by teachers during work and its effects on their performance: The role of teacher's well-being and social media addiction. BMC Psychology, 12, 617. https://doi.org/10.1186/s40359-024-02115-8

25. Daniel, J., & Cross, C. L. (2019). Sampling essentials: Practical guidelines for making sampling choices. SAGE Publications.

26. Davis, F. D. (1989). Perceived usefulness, perceived ease of use, and user acceptance of information technology. MIS Quarterly, 13(3), 319–340. https://doi.org/10.2307/249008

27. Delos Santos, M. R., & Rivera, J. T. (2022). Teachers' digital workload and the role of social media in blended learning environments. Philippine Journal of Education and Development, 13(1), 33–45.

28. De Vera, J. L. (2020). Challenges and teacher resilience: The new normal classroom instruction using social media in the Philippine context. Retrieved from https://www.researchgate.net/profile/Jayson-De-Vera-2/publication/344467152

29. De Villa, J. A., & Manalo, F. K. B. (2020). Secondary teachers' preparation, challenges, and coping mechanism in the pre-implementation of distance learning in the new normal. IOER International Multidisciplinary Research Journal, 2(3), 144–154.

30. Dwivedi, Y. K., Ismagilova, E., Hughes, D. L., Carlson, J., Filieri, R., Jacobson, J., & Wang, Y. (2021). Setting the future of digital and social media marketing research: Perspectives and research propositions. International Journal of Information Management, 59, 102168. https://doi.org/10.1016/j.ijinfomgt.2020.102168

31. EdgeFoundation. (2020).Teachers' media habits report. https://www.edge.co.uk/ documents/ 365/ Teachers_media_habits_rep ort_FINAL.pdf

32. Edge Foundation. (2023). The Social Media Habits of Teachers. Education Comms Network. Retrieved from https://www.edge.co.uk

33. Etikan, I., & Bala, K. (2019). Sampling and sampling methods. Biometrics & Biostatistics International Journal, 7(3), 215–217. https://doi.org/10.15406/bbij.2019.07.00224

34. Gao, F., Luo, T., & Zhang, K. (2020). Tweeting for learning: An empirical study of student perceptions on Twitter use in higher education. Journal of Computer Assisted Learning, 36(4), 511–522. https://doi.org/10.1111/jcal.12401

35. Garcia, R. M., & Tuliao, K. V. (2021). Teachers' pursuit of higher education: Motivations and challenges in the Philippine context. Journal of Education and Human Development, 10(1), 101–110. https://doi.org/10.15640/jehd.v10n1a12

36. Güney, K. (2023). Considering the Advantages and Disadvantages of Utilizing Social Media to Enhance Learning and Engagement in K- 12 Education. Research in Social Sciences and Technology, 8(2), 83-100. https://doi.org/10.46303/ressat.2023.13

37. Greenhow, C., & Galvin, S. (2020). Teaching with social media: Evidence- based strategies for making remote higher education less remote. Information and Learning Sciences, 121(7/8), 513–524. https://doi.org/10.1108/ILS-04-2020-0138

38. Greenhow, C., & Lewin, C. (2016). Social media and education: Reconceptualizing the boundaries of formal and informal learning. Learning, Media and Technology,41(1),6–30. https://doi.org/10.1080/17439884.2015.1064954

39. Hamid, S., Waycott, J., Kurnia, S., & Chang, S. (2020). Understanding students' perceptions of social media use for academic purposes: The role of teacher encouragement. Computers in Human Behavior, 107, 106280. https://doi.org/10.1016/j.chb.2020.106280

40. Hew, K. F., & Cheung, W. S. (2020). Students' perceptions of online discussion forums as a learning tool: The importance of social presence and interaction. Interactive Learning Environments, 28(5), 565–577. https://doi.org/10.1080/10494820.2019.1583653

41. Huang, Y. M., & Liaw, S. S. (2020). Exploring teachers' perceptions and acceptance of social media use in education. Journal of Educational Technology & Society, 23(4), 81–93. https://www.j-ets.net/ETS/journals/23_4/8.pdf

42. Jackson, B. (2022). Teachers' perceptions of using social media for classroom instruction in secondary schools (Master's thesis). Mississippi State University. https://scholarsjunction.msstate.edu/td/5439/

43. Jaffer, R., Davids, Z., & Seymour, L. (2023). Challenges of using social media as a teaching tool in secondary schools. In Proceedings of the 22nd European Conference on e-Learning (Vol. 22, No. 1). https://doi.org/10.34190/ecel.22.1.1657

44. Jan, S. K. (2023). Investigating the impact of social media on student academic engagement in higher education. Education and Information Technologies, 28,13479–13495. https://doi.org/10.1007/s10639-023-11625-5

45. Javier, B. F. (2021). Practices of Filipino public high school teachers on digital teaching and learning technologies during the COVID-19 pandemic: Basis for learning action cell sessions. Retrieved from https://files.eric.ed.gov/fulltext/ED616121.pdf

46. Johnson, R. B., & Christensen, L. (2020). Educational research: Quantitative, qualitative, and mixed approaches (7th ed.). SAGE Publications.

47. Junco, R., Heiberger, G., & Loken, E. (2011). The effect of Twitter on college student engagement and grades. Journal of Computer Assisted Learning, 27(2), 119–132. https://doi.org/10.1111/j.1365-2729.2010.00387.x

48. Junco, R., Heiberger, G., & Loken, E. (2020). The effect of Twitter on college student engagement and grades. Journal of Computer Assisted Learning,36(5),523–535. https://doi.org/10.1111/jcal.12437

49. Kabilan, M. K., Ahmad, N., & Abidin, M. J. Z. (2010). Facebook: An online environment for learning of English in institutions of higher education? The Internet and Higher Education, 13(4), 179–187. https://doi.org/10.1016/j.iheduc.2010.07.003

50. Kumar, R. (2023). Research methodology: A step-by-step guide for beginners (6th ed.). Thousand Oaks, CA: SAGE Publications.

51. Laguador, J. M. (2021). Facebook groups as academic discussion platforms: Enhancing classroom engagement among Filipino college students. Philippine Journal of Education and Learning, 44(1), 25–40.

52. Larasati, T. W., & Lolita, Y. (2022). Lecturers' perception of the use of social media for English language teaching. Prosodi, 16(1), 1–10. Retrieved from https://journal.trunojoyo.ac.id/prosodi/article/view/15729/0

53. Lee, J., Kim, H., & Choi, J. (2022). Impact of social media use on teacher- student engagement in classrooms. Computers & Education, 178, 104403. https://doi.org/10.1016/j.compedu.2021.104403

54. Liu, Y., & Zhang, X. (2022). The role of social media in facilitating peer collaboration and knowledge sharing in education. Computers & Education, 181, 104428. https://doi.org/10.1016/j.compedu.2021.104428

55. Lorenzo, A. M., & Bautista, J. M. (2020). Exploring the role of teaching experience in integrating technology in the classroom. Philippine Journal of Educational Technology, 9(1), 33–45.

56. Madrigal, J., & Manna, A. (2020). Social networking platforms and classroomculture ResearchGate. https://www.researchgate.net/publication/357582092

57. Manca, S., & Ranieri, M. (2016). Facebook and the others. Potentials and obstacles of Social Media for teaching in higher education. Computers & Education, 95, 216–230. https://doi.org/10.1016/j.compedu.2016.01.012

58. Maqableh, M., Masa'deh, R., Shannak, R., & Almajali, D. (2021). The effect of social media applications on students' academic performance and engagement. Education and Information Technologies, 26(6), 6131– 6147. https://doi.org/10.1007/s10639-021-10546-2

59. Martinez, R. G., & Cruz, E. M. (2021). Development and validation of the Teacher Engagement Strategies Scale. International Journal of Educational Studies, 5(1), 55–70.

60. Masykuri, S., & Basuki, B. (2022). Students' perception of digital media for English teaching learning. Teaching English as a Foreign Language Journal, 1(1), 64–73. https://doi.org/10.12928/tefl.v1i1.171

61. Meccawy, M., Alfadda, H. A., & Alshammari, A. (2021). Student engagement and educational technologies in blended learning environments. Education and Information Technologies, 26(3), 3023–3041. https://doi.org/10.1007/s10639-020-10344-7

62. Mercado, F. M. S., & Shin, S. (2025). K-12 teachers' professional development and learning on social media: A systematic literature review. Information and Learning Sciences, 126(3/4), 214–244. https://doi.org/10.1108/ILS-12-2023-0198

63. Moghavvemi, S., Sulaiman, A., Jaafar, N. I., & Kasem, N. (2020). Social media as a complementary learning tool for teaching and learning: The case of YouTube. The International Journal of Management Education, 18(3),100426. https://doi.org/10.1016/j.ijme.2020.100426

64. Moralista, R., & Oducado, R. M. F. (2020). Faculty perception toward online teaching in higher education during the coronavirus disease 19 (COVID-19) pandemic. Universal Journal of Educational Research, 8(10), 4736–4742. https://doi.org/10.13189/ujer.2020.081044

65. Narad, A., & Dolizyi, N. H. (2020). Social media and teacher effectiveness: A literature review. International Journal of Future Generation Communication and Networking, 13(3), 1–10. https://doi.org/10.13052/jfgcn2207-6360.13305

66. Pajoohesh, H., & Alireza, A. (2022). Exploring the impact of social media- facilitated group work on learners' academic engagement. Education and Information Technologies, 27(1),1–19. https://doi.org/10.1007/s10639-021-10740-4

67. Perez, E., Manca, S., Fernández-Pascual, R., & McGuckin, C. (2023). A Systematic Review of Social Media as a Teaching and Learning Tool in Higher Education: A Theoretical Grounding Perspective. Education and Information Technologies, 28, 11921–11950. https://doi.org/10.1007/s10639-023-11647-2

68. Philippine Statistics Authority. (2019). Gender statistics on labor and employment. Retrieved from https://psa.gov.ph

69. Pitafi, A. H., Rasheed, M. I., Kanwal, S., & Ren, M. (2022). Social media- based collaborative learning effects on student performance with moderating role of academic self-efficacy. Frontiers in Psychology, 13, 903919. https://doi.org/10.3389/fpsyg.2022.903919

70. Rahmawati, D., & Hidayati, T. (2023). Students' perceptions of multimedia materials through social media in language learning. JETL (Journal of Education, Teaching and Learning), 8(1), 109–118. https://doi.org/10.26737/jetl.v8i1.3630

71. Reychav, I., & Wu, D. (2021). Social media use and participation: Exploring students' comfort and engagement in academic online discussions. Journal of Educational Computing Research, 59(2), 243–264. https://doi.org/10.1177/0735633120962967

72. Reyes, C. M., & Salazar, R. D. (2021). Teacher experience and technology integration: A Philippine secondary education perspective. International Journal of Education and Innovation, 6(2), 87–97.

73. Rodríguez-Triana, M. J., Prieto, L. P., Holzer, A., & Gillet, D. (2020). Instruction, student engagement, and learning outcomes: A case study using anonymous social media in a face-to-face classroom. IEEE Transactions on Learning Technologies, 13(2), 344–356. https://doi.org/10.1109/TLT.2020.2965893

74. Santos, J. P. M. (2021). Social media usage and the academic performance of Filipino junior high school students. International Journal of Education Management and Development Studies, 4(2), 91-102. Retrieved from https://iiari.org/wp- content/uploads/ijemds.v4.2.917.pdf

75. Santos, E. L., & Villegas, K. A. (2020). Patterns of social media use in instructional delivery among secondary school teachers. International Journal of Educational Innovation, 6(3), 66–78.

76. Saputri, D. N., & Pratama, A. R. (2022). Social media as a student engagement tool in blended learning. Indonesian Journal of Education Research, 2(1), 56–65. Retrieved from https://journal.uii.ac.id/ijer/article/view/23345

77. Sari, D. P., & Wahyudin, A. Y. (2020). The effectiveness of using multimedia via social media in enhancing students' understanding. Journal of Physics: Conference Series, 1471(1), 012054. https://doi.org/10.1088/1742-6596/1471/1/012054

78. Sari, R. M., & Lestari, D. (2021). Examining the effect of teacher's age difference on learning technology acceptance. AIP Conference Proceedings, 2536(1), 020013. https://doi.org/10.1063/5.0092162

79. Salas, E. T., & Rodelas, N. C. (2021). Students' perceptions on the effectiveness of social media in enhancing learning activities in the new normal. Asian Journal of Educational Research, 9(3), 1–9.

80. Saunders, M., Lewis, P., & Thornhill, A. (2021). Research methods for business students (8th ed.). Pearson Education Limited

81. Seif, S. (2022). Social media as a pedagogical tool in class: TikTok case study. The Journal of Social Media for Learning, 3(2). https://doi.org/10.24377/LJMU.jsml.article697

82. Shapiro, C. (2022). Statistical methods for education research. Bost Brubaker, P., Sisson, D. C., Wilson, C., & Zhang, A. (2021). An examination of student perceptions of teacher social media use in the classroom. Journal of Public Relations Education. Retrieved from https://journalofpreducation.com/2021/05/28/an-examination-of-student-perceptions-of-teacher-social-media-use-in-the-classroom/

83. Sharkey, C. (2022, September 6). The tricky ethics of being a teacher on TikTok. Wired. https://www.wired.com/story/teachers-on-tiktok

84. Smith, L. A., & Johnson, P. R. (2019). Social media usage and its impact on teaching effectiveness. Journal of Educational Technology Research, 32(2), 134–148.

85. Singh, A. S., & Masuku, M. B. (2019). Determination of sample size in health sciences research. International Journal of Economics, Commerce and Management, 7(3), 1–17. https://ijecm.co.uk/wp-content/uploads/2019/03/731.pdf

86. Tammelin, M., Mäkinen, M., & Salmela-Aro, K. (2021). Social media use and classroom engagement: Teachers' perspectives. Teaching and Teacher Education, 105, 103425. https://doi.org/10.1016/j.tate.2021.103425

87. Tang, Y., & Hew, K. F. (2022). Using social media in instruction: Perceptions of Chinese university students. Educational Technology Research and Development, 70, 503–523. https://doi.org/10.1007/s11423-021-10027-6

88. Thanomsing, C., & Sharma, P. (2024). Understanding instructor adoption of social media using the technology acceptance model. Journal of Research in Innovative Teaching & Learning, 17(1), 47–65. https://doi.org/10.1108/JRIT-04-2022-0021

89. Tondeur, J., Scherer, R., Siddiq, F., & Baran, E. (2021). The impact of teacher preparation on preservice teachers' competence to use technology in education: A multilevel analysis. Teaching and Teacher Education, 100, 103286. https://doi.org/10.1016/j.tate.2021.103286

90. Turney, S. (2022). Understanding correlation and regression analysis. San Diego, CA: Academic Press.

91. Vygotsky, L. S. (1978). Mind in society: The development of higher psychological processes. Cambridge, MA: Harvard University Press. Prasetyo, A. R.,

92. Wang, H., Wang, M., & Li, G. (2022). The Use of Social Media Inside and Outside the Classroom to Enhance Students' Engagement in EFL Contexts. Frontiers in Psychology, 13:1005313. https://doi.org/10.3389/fpsyg.2022.1005313

93. Wang, Q., Woo, H. L., Quek, C. L., Yang, Y., & Liu, M. (2021). Using social media to support collaborative learning in higher education: A review of trends, benefits, and challenges. Journal of Computer Assisted Learning, 37(1), 1–17. https://doi.org/10.1111/jcal.12484

94. Wang, T., & Chen, C. (2023). Teacher facilitation and social media integration: Enhancing student collaboration and learning outcomes. Journal of Educational Technology & Society, 26(1), 34–48. https://www.jstor.org/stable/26914321

95. Widodo, W., & Pusparini, F. (2022). Social media-based learning resources and students' autonomous learning behavior. Asian Journal of Education and e-Learning, 10(1),34–42. https://doi.org/10.24203/ajeel.v10i1.6781

96. Yusri, H., & Rahmawati, D. (2023). Student motivation and engagement through social media-assisted learning. Journal of Educational Multimedia and Hypermedia, 32(1), 78–91. https://doi.org/10.1016/j.jemh.2023.03.002