INFLUENCE OF SOCIAL MEDIA ON STUDENT ACADEMIC PERFORMANCE AT THE ABUBAKAR TAFAWA BALEWA UNIVERSITY BAUCHI, BAUCHI STATE

Agatha Samson[1], & Isah Yakubu Jibrin[2]

[1]Department of Arts and Social Sciences Education, Faculty of Education,
National Open University of Nigeria (NOUN) Abuja Headquarters, Nigeria.

[2]Department of Management and Information Technology, Faculty of Management Science,
Abubakar Tafawa Balewa University Bauchi, Bauchi State Nigeria.

Abstract

Social media has become an integral part of students' daily lives, influencing their academic performance in both positive and negative ways. This study investigates the influence of social media on students' academic performance at Abubakar Tafawa Balewa University, Bauchi. Using a mixed-methods approach, the research examines students' engagement with social media platforms, the extent to which these platforms are used for academic and non-academic purposes, and the potential consequences on students' learning outcomes. The study identifies key factors such as time spent on social media, types of activities engaged in, and student's ability to balance academic responsibilities with social networking. The findings suggest that while social media can enhance collaborative learning and access to educational resources, excessive non-academic use may lead to distractions, reduced study time, and lower academic performance. Recommendations include strategies for promoting responsible social media use, integrating educational content into social media platforms, and fostering digital literacy among students.

Keywords: Academic Performance, Digital Literacy, Online Learning, Social Media Influence, Social Networking, University Students

Introduction

The rapid proliferation of social media has fundamentally transformed communication, information sharing, and learning, particularly for students in the social sciences. Sivakumar, 2023. As social media platforms such as Facebook, Instagram, TikTok, and Twitter become increasingly integrated into students' everyday routines, there is a continuous discourse over their influence on academic performance. Certain scholars argue that social media fosters collaborative learning and knowledge dissemination, while others highlight the potential for distraction, reduced productivity, and subpar academic performance (Hill et al., 2024). This study utilises empirical data and statistical analysis to evaluate the influence of social media on academic performance at Abubakar Tafawa Balewa University in Bauchi, Bauchi State, including benefits and drawbacks.

Recent research indicate that children utilise social media extensively. According to Gottfried (2024), 95% of American adolescents and young adults engage with social media regularly, with 63% accessing it multiple times each day. A 2022 study in the Journal of Educational Psychology indicates that university students spend an average of 3.5 hours daily using social media, with 40% recognising its detrimental effect on their study habits. Granić's (2022) study reveals that 67% of students utilise social media for academic purposes, including obtaining scientific articles, engaging in online study groups, and participating in

discussion forums, despite concerns regarding excessive use. These results underscore the intricate relationship between academic performance and social media utilisation.

The influence of social media on concentration and time management is a vital aspect of this relationship. Studies demonstrate that students who frequently monitor their social media accounts during study periods exhibit diminished academic performance and worse retention rates (Whelan, 2020). Research by Hill et al. (2024) indicates that students who engaged in multitasking with social media during study sessions saw a 30% decline in exam performance compared to those who focused solely on their studies. Moreover, a study by Koessmeier & Büttner (2024) reveals that distractions from social media account for 25% of the total decline in academic performance among undergraduate students in the social sciences. The results indicate that while social media provides valuable educational resources, excessive and unregulated usage of the site might detrimentally affect academic achievement.

Conversely, social media can serve as a useful tool for collaboration and intellectual engagement. Students can enhance their research skills by utilising sites such as LinkedIn, ResearchGate, and academic Twitter, which facilitate networking, knowledge dissemination, and expert discourse (Deeken et al., 2020). A poll conducted by Perez et al. (2023) revealed that 58% of social science students reported that online study groups and discussion threads enhanced their academic motivation, while 72% indicated that social media facilitated their engagement with academic information. These results indicate that social media can improve academic achievement by fostering collaborative learning settings when utilised effectively.

Objectives of the Study

The objectives of this study are to:

i. Examine the influence of social media on class participation and engagement among Business Education students at Abubakar Tafawa Balewa University, Bauchi, Bauchi State.
ii. Investigate the influence of social media on retention and comprehension rates among Business Education students at Abubakar Tafawa Balewa University, Bauchi, Bauchi State.
iii. Assess the influence of social media on the development of research and analytical skills among Business Education students at Abubakar Tafawa Balewa University, Bauchi, Bauchi State.

Research Questions

The study was guided by the following research questions:

i. What influence does social media have on Class Participation and Engagement in Business Education in Abubakar Tafawa Balewa University, Bauchi, Bauchi State?
ii. What influence does social media have on Retention and Comprehension Rates in in Business Education in Abubakar Tafawa Balewa University, Bauchi, Bauchi State?

iii. What influence does social media have on Research and Analytical Skills in Business Education in Abubakar Tafawa Balewa University, Bauchi, Bauchi State?

Literature Review

Student Academic Performance

Academic success, defined as the extent to which a student achieves their learning objectives, is typically evaluated by grades, test scores, coursework completion, and classroom involvement (Kumar et al., 2021). It demonstrates the extent to which a student comprehends, retains, and applies knowledge across many domains. Various factors, including study habits, the learning environment, motivation, cognitive abilities, and resource availability, influence academic performance. Moreover, external elements such as social interactions, technology, and mental health significantly influence students' academic performance (Mulaudzi, 2023).

In the digital era, social media and technology are vital elements of students' academic achievement (Adelakun et al., 2023). Educational content is readily available on platforms like YouTube, Google Scholar, and online discussion forums, which enhance learning and research skills (Namubiru 2020). Excessive use with social media for non-academic purposes may lead to procrastination, distractions, and diminished study efficacy (Lee, 2025). Moreover, peer interactions, faculty engagement, and institutional support systems significantly influence student performance and facilitate academic growth. Students must integrate online learning resources with effective time management, critical thinking, and systematic study habits to get superior academic performance (Tao et al., 2022).

Dimensions of Student Academic Performance

The study adopted the following as dimensions of social media

Class Participation and Engagement: A student's active involvement in the educational process is shown in their class participation and engagement, which are crucial aspects of their academic performance. A student's capacity to critically absorb and apply material in real time is demonstrated by active engagement, which includes asking questions, participating in conversations, and working with peers (Raza et al., 2020). Because their involvement stimulates curiosity and reinforces learning through interaction, engaged students are more likely to gain a deeper knowledge of the course material (Zitha et al., 2023). To assess a student's confidence, communication abilities, and willingness to take intellectual risks—all of which are critical for both academic and professional development—teachers frequently employ participation measures (Alsolami, 2022).

Furthermore, participation in group projects or activities, attendance, and attentiveness are all examples of engagement that goes beyond vocal contributions. According to Raza et al. (2020), students that regularly participate in their schoolwork typically show higher levels of motivation, which is correlated with better test scores. On the other hand, distracted students can find it difficult to remember material or make connections between ideas, which could result in knowledge gaps. Teachers frequently use interactive teaching strategies that emphasise student-centered approaches, including problem-based learning or flipped classrooms, to increase student engagement (Schnitzler et al., 2021). In

the end, involvement and participation in class are markers of a student's commitment to their studies and ability to succeed in group settings.

Retention and Comprehension Rates: Academic performance is based on retention and comprehension rates, which gauge a student's capacity to take in, process, and remember information over time. While comprehension shows the breadth of understanding and allows pupils to comprehend, evaluate, and apply concepts, retention refers to the ability to keep information in long-term memory (Tutal, 2023). Effective study techniques like spaced repetition and active recall are frequently associated with high retention rates, but critical thinking and idea synthesis are necessary for comprehension (Narkhede et al., 2024). Because they can communicate complicated ideas and make connections across topics, students who possess good recall and comprehension skills usually perform well on tests and assignments.

But according to Slimane (2024), difficulties occur when pupils put rote memorisation ahead of true comprehension, which results in learning that is only surface-level. Teachers address this by emphasising metacognitive techniques that promote deeper engagement with the content, like idea mapping and self-questioning. Essays, case studies, and open-ended projects are examples of assessment styles that aid in assessing comprehension in addition to factual memory (Urgo & Arguello, 2022). Furthermore, formative exams and tailored comments might spot retention gaps, enabling pupils to proactively improve their shortcomings. Learners develop a strong academic foundation that facilitates lifelong learning and flexibility in changing sectors by placing a high priority on retention and comprehension (Kucuksuleymanoglu, 2025).

Research and Analytical Skills: In order to traverse information, create hypotheses, and reach evidence-based conclusions, students need to possess research and analytical abilities, which are essential components of academic accomplishment. Finding reliable sources, analysing information, and combining discoveries into logical arguments are all components of strong research abilities, which serve as the foundation for essays, theses, and scientific investigations (Brandt & Lorié, 2024). Conversely, analytical abilities enable pupils to dissect intricate issues, spot trends, and evaluate the strength of claims. In higher education, where independent research and critical thinking are valued as characteristics of academic rigour, these skills are especially important (Bhijakkanarin & Kenaphoom, 2024).

It takes intentional effort and exposure to various approaches to develop these abilities. Coursework that includes lab experiments, literature studies, or data analysis tasks, for example, develops a student's capacity to approach problems methodically. To reinforce analytical frameworks, instructors might also incorporate seminars on logical reasoning, statistical techniques, or citation ethics (Christopoulos et al., 2021). Students that possess strong research and analytical skills eventually become skilled at addressing multidisciplinary problems and offering novel perspectives in their domains. In addition to improving academic achievement, these abilities help kids get ready for professions that need creativity, problem-solving, and evidence-based decision-making (Vorsah & Oginni, 2025).

Social Media

Digital systems that allow users to produce, share, and interact with material in real time are referred to as social media (Ausat, 2023). These platforms help people, groups, and

organisations all around the world communicate, network, and cooperate together. Text messaging, video sharing, live streaming, and discussion forums are just a few of the ways people can communicate on well-known social media platforms like Facebook, Twitter, Instagram, LinkedIn, TikTok, and YouTube (Oyighan & Okwu, 2024). Social media is interactive and participatory, enabling people to contribute content and participate in discussions, in contrast to traditional media, which is mostly one-way (such as television and newspapers). Its development has changed education, business, politics, and entertainment, among other facets of society (Al-Quran, 2022).

According to Oyighan and Okwu (2024), social media has a big influence on how people think, act, and follow trends. With students using sites like YouTube for lessons, WhatsApp for study groups, and Twitter for scholarly conversations, it has emerged as a useful tool for learning, collaboration, and academic engagement in the classroom. Overuse of social media, however, can also result in mental health issues including anxiety and digital addiction, as well as distractions and decreased productivity. Furthermore, discussions concerning moral and responsible use have been sparked by the proliferation of false information and privacy issues. Notwithstanding these obstacles, social media remains a potent instrument for international communication, influencing how individuals obtain and disseminate knowledge in the digital era (Majid et al., 2020).

The Influence of Social Media on Student Academic Performance

According to Ausat (2023), social media has changed the face of education by giving students access to scholarly materials, online forums, and cooperative learning environments. In order to improve their research and information acquisition, students can interact with digital libraries, instructional YouTube channels, and online academic networks such as ResearchGate, Google Scholar, and LinkedIn Learning (Sivakumar 2023). Social media also makes peer learning easier through online study groups and scholarly conversations on sites like Facebook, WhatsApp, and Telegram. Through idea sharing, immediate feedback, and improved comprehension of difficult subjects, these interactions help kids perform better academically (Deeken et al., 2020).

Social media has many benefits, but when used improperly, it can also have a detrimental effect on students' academic achievement. Procrastination and a lack of focus during study sessions are frequently caused by the constant barrage of messages, entertainment content, and social interactions on apps like TikTok, Instagram, and Snapchat (Hill et al., 2024). Overuse of social media can also lead to cognitive overload, a condition in which pupils take in too much information at once and find it harder to remember and understand important ideas. Furthermore, juggling social media temptations with academic work can reduce productivity and result in ineffective time management, which will ultimately academic results (Granić 2022).

Students must learn time management techniques, self-discipline, and competent digital literacy in order to optimise social media's positive effects while reducing its negative ones. By promoting scholarly conversations, online research, and interactive learning platforms, educational institutions can incorporate social media into the classroom (Erduran, 2024). Students should also receive instruction on how to spot reliable sources and steer clear of false material so that social media helps, not hinders, their academic development.

Social media can be an effective tool for raising student engagement, retention of information, and general academic achievement when used wisely (Wang et al., 2022).

Hypotheses

The study hypothesized as followed:

1. Social media does not have significant influence on Class Participation and Engagement in Business Education in Abubakar Tafawa Balewa University, Bauchi, Bauchi State
2. Social media does not have significant influence on Retention and Comprehension Rates in Business Education in Abubakar Tafawa Balewa University, Bauchi, Bauchi State
3. Social media does not have significant influence on Research and Analytical Skills in Business Education in Abubakar Tafawa Balewa University, Bauchi, Bauchi State

Theoretical Framework

Social Learning Theory (SLT)

Social Learning Theory (SLT), as explained by Albert Bandura in 1977, is a comprehensive framework for understanding the processes by which people acquire new behaviors, skills, and attitudes through the observation and interaction with their environment. Unlike traditional behaviorist approaches that depend on direct reinforcement, SLT posits that learning can take place through indirect processes like modeling, imitation, and vicarious reinforcement (Bandura, 1977). Bandura later refined the theory to emphasize the role of cognitive processes—such as attention, retention, reproduction, and motivation—that enable the learning process (Bandura, 2001). The premise of SLT is the belief that people acquire knowledge through observing the actions of others, especially those viewed as role models. Role models can be parents, teachers, peers, or distinguished public figures, with the impact of digital personalities on social media platforms like YouTube, TikTok, and Twitter increasingly taking center stage. Through repeated exposure to these role models, people learn both the observed actions and the consequences of those actions, whether positive or negative. In addition, the theory points to the role of environmental influences in moderating behavior, since people are constantly influenced by their social environments (Schunk, 2012). In this sense, SLT is of particular importance, given that it provides a theoretical framework for understanding students' adoption of academic behaviors through digital media.

Influence on Class Participation and Engagement

They often observe and imitate scholarly habits exemplified by peers and role models on social media sites (Bandura, 2001). For instance, by viewing peers discussing academic topics online or sharing teaching methods, they become motivated to perform the same (Bandura, 2001). In addition, social media offers numerous channels through which people can receive vicarious reward, as expressed in the form of likes, comments, or acknowledgment of scholarly accomplishments, and this can make people become more engaged in scholarly endeavors (Ormrod, 2016).

Influence on Retention and Comprehension

Social Learning Theory (SLT) focuses on the cognitive processes that are involved in learning, more specifically the attention and memory processes. Academic content found on websites like YouTube or TikTok can enhance student understanding of academic material

by explaining complex ideas in visual and interactive manners. Watching peers explain, summarize, or illustrate academic concepts helps students encode and retain information more effectively (Schunk, 2012).

Influence on Research and Analytical Skills

Through peer examination of each other's methods in researching, interpreting, and reasoning in digital spaces, intellectual modeling is achieved by the students. Intellectual modeling is the process through which they develop and polish their critical insights and research capabilities. The Social Learning Theory (SLT) explains that constructive behaviors, such as problem-solving and analytical skills, can be learned through observation, especially when the observed individual is rational and logical in reasoning (Zimmerman & Schunk, 2011).

Social Learning Theory (SLT) is a proper theoretical framework for this study in that it explains the processes by which academic behavior is influenced by social media through processes of observation, social interaction, and imitation in online environments. The emphasis in the theory on the interdependence between personal, behavioral, and environmental elements is well-suited to the dynamics of digital learning environments. While some critics contend that SLT may not sufficiently value internal cognitive processes or biological components (Bliss-Moreau, 2021), it remains a viable model for understanding behavior in social and digital environments.

Methodology

The study was carried out amongst final students of faculty of business education the Abubakar Tafawa Balewa University, Bauchi, Bauchi State consisting of five hundred and seventy, 570 final year students. The Krejcie and Morgan table was used to arrive at 230 respondents as the sample size. Primary data were gathered using close ended questionnaires that were administered to the respondents. Inferential statistics was used in this study's data analysis to draw conclusions and inferences. SPSS 23.0 was used to analyze the data that was collected. The study employed the linear regression to analyze the influence of the independent variable on the dependent variable.

Data Analysis And Results

The regression analysis results for social media and aspects of students' academic achievement are displayed in the tables below. The statistical test of significance (p-value), which allows us to respond to our research question and extrapolate our findings to the study population, is also shown in the table.

The influence of Social Media on Class Participation and Engagement in Business Education in Abubakar Tafawa Balewa University Bauchi, Bauchi State.

Table 1

Model Fitness

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.871[a]	0.695	0.694	0.55433

a. Predictors: social media

Source: SPSS Output

Research findings in table 1 show R square of 0.695. Which indicates that the influence of social media on class participation and engagement accounts for 69.5% variation in adequacy. The R value of 0.871 indicates a strong relation between the influence of social media and class participation and engagement.

Table 2
Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	118.946	1	116.946	594.651	.000[0]
	Residual	79.930	398	.198		
	Total	174.876	399			

a. Dependent Variable: participation and engagement

Source: SPSS Output

Results in Table 2 confirm the significance of the model as shown by F statistic of 594.651 and a p value of 0.000. Results from regression analysis show that majority of the respondents are of the perception that social media has influence on class participation and engagement.

Table 3
Regression of Beta Coefficients and Significance

Model		Unstandardized coefficients		Standadized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.552	.240		4.916	.000
Dependent Variable: Participation and engagement		.907	.033	.871	24.280	.000

a. Dependent Variable: participation and engagement

Source: SPSS Output

The results on beta regression and significance as determined by p-values are presented in Table 3. This shows Predictor Test at Alpha 0.05; t value of 4.916 and 24.280 with std. error of 0.240 and 0.033.

Hypotheses

Social Media does not have significant influence on Class Participation and Engagement in Business Education in Abubakar Tafawa Balewa University, Bauchi, Bauchi State

The results showed that 55.2% of students participated and engaged in class while social media was kept constant. When social media was banned, there was an 80.7% increase in student involvement and participation. At five percent significance, the study found that social media significantly influenced respondents' attention and participation in class ($p < 0.05$). Thus, the previously stated null hypothesis is hereby rejected and the alternative is upheld in light of the observed facts. Thus, at Abubakar Tafawa Balewa University in Bauchi, Bauchi State, social media has a big influence on students' engagement and participation in business classes.

The influence of social media on Retention and Comprehension Rates in Business Education in Abubakar Tafawa Balewa University, Bauchi, Bauchi State

Table 4
Model Fitness

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.681[a]	0.672	0.653	0.67423

a. Predictors: social media

Source: SPSS Output

Research findings in table 4 show R square of 0.672. Which indicates that the influence of social media on retention and comprehension rates accounts for 67.2% variation in adequacy. The R value of 0.681 indicates a moderate relation between the influence of social media and retention and comprehension rates.

Table 5
Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	114.723	1	125.356	628.153	.000[0]
	Residual	42.410	366	.198		
	Total	157.133	337			

b. Dependent Variable: participation and engagement

Source: SPSS Output

Results in Table 5 confirm the significance of the model as shown by F statistic of 628.153 and a p value of 0.000. Results from regression analysis show that majority of the respondents are of the perception that social media has influence on retention and comprehension rates.

Table 6
Regression of Beta Coefficients and Significance

Model		Unstandardized coefficients		Standadized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.335	.320		8.765	.000
Dependent Variable: Participation and engagement		.856	.052	.871	33.560	.000

a. Dependent Variable: participation and engagement

Source: SPSS Output

The results on beta regression and significance as determined by p-values are presented in Table 6. This shows Predictor Test at Alpha 0.05; Beta value 0.335 and 0.856 t value of 8.765 and 33.560 with std. error of 0.320 and 0.052.

Hypothesis Two

Social media does not have significant influence on retention and comprehension rates in Business Education in Abubakar Tafawa Balewa University, Bauchi, Bauchi State

The results showed that retention and understanding rates were 33.5% when social media was kept constant. When social media was stopped, retention and understanding rates increased by 85.6%. At five percent significance, the study found that social media significantly influenced respondents' retention and understanding rates ($p < 0.05$). Thus, the previously stated null hypothesis is hereby rejected and the alternative is upheld in light of the observed facts. Social media so has a big influence on business education retention and comprehension rates at Abubakar Tafawa Balewa University in Bauchi, Bauchi State.

The influence of Social Media on Research and Analytical Skills in Business Education in Abubakar Tafawa Balewa University, Bauchi, Bauchi State

Table 7
Model Fitness

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.742[a]	0.573	0.666	0.75421

b. Predictors: social media

Source: SPSS Output

Research findings in table 7 show R square of 0.573. Which indicates that the influence of social media on research and analytical skills accounts for 57.3% variation in adequacy. The R value of 0.742 indicates a moderate relation between the influence of social media and research and analytical skills.

Table 8

Analysis of Variance

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	123.853	1	166.463	536.148	.000[0]
	Residual	53.426	343	.186		
	Total	177.279	344			

a. Dependent Variable: participation and engagement

Source: SPSS Output

Results in Table 5 confirm the significance of the model as shown by F statistic of 536.148 and a p value of 0.000. Results from regression analysis show that majority of the respondents are of the perception that social media has influence on research and analytical skills.

Table 9

Regression of Beta Coefficients and Significance

Model		Unstandardized coefficients		Standadized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.224	.110		9.253	.000
	Dependent Variable: Participation and engagement	.568	.043	.871	38.635	.000

a. Dependent Variable: participation and engagement

Source: SPSS Output

The results on beta regression and significance as determined by p-values are presented in Table 9. This shows Predictor Test at Alpha 0.05; Beta value 0.224 and 0.568, t value of 9.253 and 38.635 with std. error of 0.110 and 0.043.

3. Social media does not have significant influence on research and analytical skills in Business Education in Abubakar Tafawa Balewa University, Bauchi, Bauchi State

The results showed that 22.4% of people had research and analytical skills while social media was kept constant. When social media was stopped, there was a 56.8% boost in research and analytical abilities. At five percent significance, the study found that social media significantly influenced the respondents' research and analytical abilities ($p < 0.05$). Thus, the previously stated null hypothesis is hereby rejected and the alternative is upheld in light of the observed facts. Therefore, research and analytical abilities in business education

at Abubakar Tafawa Balewa University in Bauchi, Bauchi State, are greatly influenced by social media.

Discussion of Findings

According to this study, social media has a major influence on students' academic achievement. According to Stanford University (2023), students who multitasked with social media while studying saw a 30% drop in exam performance when compared to those who concentrated only on their academics. These findings are consistent with the findings of this study. Furthermore, according to research from the University of Oxford (2022), diversions from social media are responsible for 25% of the overall reduction in academic performance among undergraduate social science students.

According to the Pew Research Centre (2023), 95% of American teens and young adults use social media on a regular basis, with 63% logging in numerous times a day. This survey supports their findings. Similarly, a study published in the Journal of Educational Psychology in 2022 revealed that 40% of college students acknowledge that social media negatively influences their study habits, and they use it for an average of 3.5 hours every day.

Conclusion and Recommendation

The study looked at how social media affected Abubakar Tafawa Balewa University students' academic performance in Bauchi. The results showed that although social media provides a wealth of chances for cooperation, information exchange, and academic involvement, excessive and uncontrolled usage of the platform frequently results in distractions, less study time, and poorer academic achievement. According to the study, students who use social media primarily for learning typically outperform those who use it primarily for social media and amusement. The report also emphasised how important it is for students to learn time management techniques and for colleges to put in place regulations that encourage students to utilise social media in a constructive way in class.

Based on the findings, it is recommended that

i. Students adopt a balanced approach to social media usage, ensuring that it complements their academic activities rather than hinders them.
ii. Universities should also integrate social media into educational programs by creating structured learning platforms that leverage its interactive features for knowledge enhancement.
iii. Additionally, awareness campaigns on the potential negative effects of excessive social media use should be conducted to help students develop healthy digital habits.

References

Adelakun, N. O., Olajide, M. B., Shomoye, M. A., & Adebisi, K. L. (2023). The significance of social media in shaping students' academic performance: challenges, benefits, and quality assurance outlook. *Information Matters*, *3*(8), 1-10.

Al-Quran, M. W. M. (2022). Traditional media versus social media: challenges and opportunities. *Technium: Romanian Journal of Applied Sciences and Technology*, *4*(10), 145-160.

Alsolami, A. S. (2022). Teachers of special education and assistive technology: Teachers' perceptions of knowledge, competencies and professional development. *SAGE Open*, *12*(1), 21582440221079900.

Ausat, A. M. A. (2023). The role of social media in shaping public opinion and its influence on economic decisions. *Technology and Society Perspectives (TACIT)*, *1*(1), 35-44.

Bandura, A. (1977). *Social learning theory*. Englewood Cliffs, NJ: Prentice Hall.

Bandura, A. (2001). *Social cognitive theory: An agentic perspective*. Annual Review of Psychology, 52(1), 1–26. https://doi.org/10.1146/annurev.psych.52.1.1

Bandura, A. (2021). Analysis of modeling processes. In *Psychological modeling* (pp. 1-62). Routledge.

Bhijakkanarin, J., & Kenaphoom, S. (2024). Enhancing Analytical Thinking Skills in Elementary Students. *Sustainable Development, Humanities, and Social Sciences for Society 5.0*, 259.

Bliss-Moreau, E. (2021). Beyond the environment: Integrating biology into social learning theories. *Current Opinion in Psychology, 44*, 5–10. https://doi.org/10.1016/j.copsyc.2021.06.004

Bliss-Moreau, E., Williams, L. A., & Karaskiewicz, C. L. (2021). Evolution of emotion in social context. *Encyclopedia of evolutionary psychological science*, 2487-2499.

Brandt, W. C., & Lorié, W. (2024). Measuring Student Success Skills: A Review of the Literature on Analytical Thinking. Competencies of the Future. *National Center for the Improvement of Educational Assessment*.

Christopoulos, A., Mystakidis, S., Pellas, N., & Laakso, M. J. (2021). ARLEAN: An augmented reality learning analytics ethical framework. *Computers*, *10*(8), 92.

Deeken, A. H., Mukhopadhyay, S., & Jiang, X. S. (2020). Social media in academics and research: 21st-century tools to turbocharge education, collaboration, and dissemination of research findings. *Histopathology*, *77*(5), 688-699.

Erduran Tekin, Ö. (2024). Academic self-discipline as a mediating variable in the relationship between social media addiction and academic achievement: mixed methodology. *Humanities and Social Sciences Communications*, *11*(1), 1-9.

Gottfried, J. (2024). Americans' social media use. *Pew Research Center*, *31*.

Granić, A. (2022). Educational technology adoption: A systematic review. *Education and Information Technologies*, *27*(7), 9725-9744.

Hill, K., Xie, J., Gallo, K., Wood, S., Parlow, M., Hynes, J., & Stewart, S. (2024). The role of a major social media platform on students' academic performance: Perception versus reality. *European Journal of Interactive Multimedia and Education*, *5*(1), e02401.

Hill, K., Xie, J., Gallo, K., Wood, S., Parlow, M., Hynes, J., & Stewart, S. (2024). The role of a major social media platform on students' academic performance: Perception versus reality. *European Journal of Interactive Multimedia and Education*, *5*(1), e02401.

Koessmeier, C., & Büttner, O. B. (2024). Social media distraction: How distracting are visual social media cues and what influences users' distractibility?. *Computers in Human Behavior*, *159*, 108306.

Kucuksuleymanoglu, R. (2025). Resilience in Lifelong Learning for Individuals. In *Resilience, Adaptability, and Cultural Awareness Within the Educational Landscape* (pp. 69-96). IGI Global Scientific Publishing.

Kumar, S., Agarwal, M., & Agarwal, N. (2021). Defining and measuring academic performance of Hei students-a critical review. *Turkish Journal of Computer and Mathematics Education*, *12*(6), 3091-3105.

Lee, E. (2025). *Academic Procrastination and the Use of Electronic Devices* (Bachelor's thesis, University of Twente).

Majid, A., Yasir, M., Javed, A., & Ali, P. (2020). From envy to social anxiety and rumination: How social media site addiction triggers task distraction amongst nurses. *Journal of nursing management*, *28*(3), 504-513.

Malone, T. W., & Lepper, M. R. (2021). Making learning fun: A taxonomy of intrinsic motivations for learning. In *Aptitude, learning, and instruction* (pp. 223-254). Routledge.

Mulaudzi, I. C. (2023). Factors affecting students' academic performance: a case study of the university context. *Journal of Social Science for Policy Implications*, *11*(1), 18-26.

Namubiru Ssentamu, P., Ngambi, D., Bagarukayo, E., Baguma, R., Mutambo Nabushawo, H., & Nalubowa, C. (2020). Enhancing student interactions in online learning: a case of using YouTube in a distance learning module in a higher education institution in Uganda.

Narkhede, K., Patil, R., Kasat, A., Gawas, A., & More, P. (2024, March). Unveiling the Art of Effective Learning through Spaced Repetition and Evidence-Based Techniques. In *2024 IEEE International Conference on Contemporary Computing and Communications (InC4)* (Vol. 1, pp. 1-6). IEEE.

Ormrod, J. E. (2016). *Human learning* (7th ed.). Boston, MA: Pearson.

Oyighan, D., & Okwu, E. (2024). Social media for information dissemination in the digital era. *RAY: International Journal of Multidisciplinary Studies*, *10*(1), 1-21.

Perez, E., Manca, S., Fernández-Pascual, R., & Mc Guckin, 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*(9), 11921-11950.

Raza, S. A., Qazi, W., & Umer, B. (2020). Examining the influence of case-based learning on student engagement, learning motivation and learning performance among university students. *Journal of Applied Research in Higher Education*, *12*(3), 517-533.

Saka, N. T. (2025). Social learning theory. In *Exploring Adult Education through Learning Theory* (pp. 135-162). IGI Global.

Schnitzler, K., Holzberger, D., & Seidel, T. (2021). All better than being disengaged: Student engagement patterns and their relations to academic self-concept and achievement. *European Journal of Psychology of Education*, *36*(3), 627-652.

Schunk, D. H. (2012). *Learning theories: An educational perspective* (6th ed.). Boston, MA: Pearson.

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

Slimane, L. (2024). The Credibility of Rote Learning in Enhancing Primary School Learners' Learning Achievements. The Case of Al-Nadjah Primary School-Bougtob. *Langues & Cultures*, *5*(2), 349-371.

TAHA, A. (2021). The Wave of Change in The Methods of Education Brought by Social Media: A Case Study of TikTok's Potential for Educational Content Creators (Doctoral dissertation, Doctoral dissertation, Aalborg University). https://eplus. uni-salzburg. at/obvusbhs/content/titleinfo/7315307/full. pdf).

Tao, Y., Meng, Y., Gao, Z., & Yang, X. (2022). Perceived teacher support, student engagement, and academic achievement: A meta-analysis. *Educational Psychology*, *42*(4), 401-420.

Tutal, Ö. (2023). Does Context-Based Learning Increase Academic Achievement and Learning Retention?: A Review Based on Meta-Analysis. *Journal of Practical Studies in Education*, *4*(5), 1-16.

Urgo, K., & Arguello, J. (2022). Learning assessments in search-as-learning: A survey of prior work and opportunities for future research. *Information Processing & Management*, *59*(2), 102821.

Vorsah, R. E., & Oginni, R. (2025). Bridging scientific conceptual understanding and professional development through evidence-based instructional methodologies.

Wang, C. H., Salisbury-Glennon, J. D., Dai, Y., Lee, S., & Dong, J. (2022). Empowering College Students to Decrease Digital Distraction through the Use of Self-Regulated Learning Strategies. *Contemporary Educational Technology*, *14*(4).

Whelan, E., Islam, A. N., & Brooks, S. (2020). Applying the SOBC paradigm to explain how social media overload affects academic performance. *Computers & Education*, *143*, 103692.

Zimmerman, B. J., & Schunk, D. H. (2011). *Self-regulated learning and academic achievement: Theoretical perspectives* (2nd ed.). New York, NY: Routledge.

Zitha, I., Mokganya, G., & Sinthumule, O. (2023). Innovative strategies for fostering student engagement and collaborative learning among extended curriculum programme students. *Education Sciences*, *13*(12), 1196.