Relationship between Social Networking Sites Usage and Collaborative Learning Practices among Students

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Abstract
The study titled "Relationship between Social Networking Sites Usage and Collaborative Learning Practices among Students" aimed to examine the association between students' use of social networking platforms and their collaborative learning engagement. Specifically, the study had three objectives: to explore the relationship between SNS usage and collaborative learning practices, to investigate the link between SNS usage and students' participation in collaborative learning activities, and to determine the influence of SNS usage on students' engagement in collaborative learning. A quantitative research design was employed to achieve these objectives. The population of the study consisted of all students enrolled in government schools of District Attock and Tehsil Jand, from which a sample of 368 students was selected using simple random sampling technique. Data were collected using a structured questionnaire, which was validated through expert review and tested for reliability using Cronbach's alpha, indicating it was reliable for measuring both SNS usage and collaborative learning practices. The main finding of the study revealed a strong positive correlation between social networking sites usage and collaborative learning practices among students. Based on this finding, it is recommended that teachers and educational institutions integrate SNS into collaborative learning activities to enhance student participation and engagement. The study is significant as it highlights the potential of social networking tools to promote active learning, improve collaboration among students, and support educational outcomes in the modern digital learning environment.
Keywords: Social Networking Sites, Collaborative Learning, Student Engagement, Academic Participation, Educational Technology

INTRODUCTION
In the digital age, Social Networking Sites (SNS) have become deeply integrated into students' everyday lives. Originally designed for social interaction and entertainment, SNS such as Facebook, WhatsApp, Instagram, and similar platforms are now widely used in educational contexts to support communication, collaboration, and learning activities. The ubiquity of SNS has shifted attention from traditional classroom interactions to digitally mediated

peer engagement, prompting educational researchers to investigate how SNS usage influences collaborative learning practices among students. Collaborative learning — defined as a process where learners interact, share knowledge, solve problems together, and co-construct meaning — is recognized as an educational practice that enhances academic achievement, critical thinking, and communication skills.

The integration of SNS into learning environments aligns with social constructivist learning theories, which assert that knowledge is constructed through social interaction and shared experiences. This theoretical framework suggests that learning does not occur in isolation but through dialogue, cooperation, and active engagement with others. Social networking platforms, with features that facilitate real-time communication and resource sharing, provide students with extended opportunities for peer interaction and collaborative knowledge construction beyond formal classroom settings. Through group chats, online discussion threads, file sharing, and multimedia communication, SNS create an interactive learning environment that can support collaborative learning activities.

Empirical research increasingly indicates that SNS usage can play a significant role in promoting collaborative learning among students. A systematic review of social media application in higher education found that SNS significantly enhances student participation, cooperation, and knowledge construction through instant interaction and resource sharing, thereby supporting collaborative learning practices (Du & Ibrahim, 2025). Similarly, studies have revealed that SNS use encourages active engagement, peer interaction, and shared problem solving, which are essential components of collaborative learning (Lin, 2025). These findings suggest that SNS offer educational affordances that extend traditional learning beyond physical classroom boundaries.

Several studies focused on the relationship between SNS usage and collaborative learning practices have highlighted positive outcomes. Research conducted among university students demonstrated that SNS can facilitate communication and collaboration by creating virtual communities where learners work together on academic tasks, exchange ideas, and support each other's academic progress (Suci, Muslim & Chaeruman, 2021). The ease of interaction and resource sharing on social platforms makes it possible for students to coordinate group work, discuss concepts, and collectively construct understanding in ways that did not exist before widespread digital connectivity.

One prominent line of research emphasizes that SNS usage promotes active learning — a key prerequisite for effective collaboration. In contexts where students have access to social media tools, learners actively engage with peers, reflect on shared content, and negotiate meaning, which contributes to deeper cognitive engagement and collaborative outcomes. Studies modeling SNS usage for collaborative learning have shown that active participation and interaction are positively correlated with collaborative performance outcomes, indicating that SNS platforms provide environments conducive to joint learning and knowledge co-construction (Moghavvemi et al., 2016).

Research on the impact of social media-based collaborative learning further supports the potential educational benefits of SNS. For example, a study examining social media-based collaborative learning among university students reported that perceived benefits, active learning, and interactions with peers

significantly influenced collaborative learning practices, though perceived ease of use and perceived usefulness were less influential (Liu et al., 2022). These findings reveal that students' experiences with SNS in academic contexts can contribute to collaboration and learner performance, particularly when students feel actively engaged and supported by their peers.

Contextual factors such as academic self-efficacy have also been shown to moderate the relationship between SNS usage and collaborative learning outcomes. Research indicates that students with higher academic self-efficacy are more likely to benefit from social media-based collaboration due to increased confidence in participating and engaging with peers (Liu et al., 2022). This suggests that student characteristics and attitudes toward learning may interact with SNS usage to shape collaborative learning practices.

The potential of SNS to enhance learning through collaboration was also observed during the global shift to online and blended learning precipitated by the COVID-19 pandemic. During school closures and restrictions on face-to-face instruction, students increasingly relied on social platforms to maintain communication with peers and continue collaborative activities. Literature reviews summarizing research between 2015 and 2020 indicate that social media was widely accepted and used by students to support learning, interaction, and collaborative discussions outside traditional classroom settings (Suci, Muslim & Chaeruman, 2021). The pandemic context highlighted the flexibility of SNS as tools that support collaborative learning when physical interaction is limited.

Despite the positive aspects, SNS usage is not without challenges that can influence collaborative learning practices. Some studies have found that excessive or unstructured use of social networking platforms may lead to distraction, misuse of time, and decreased academic focus, which could negatively affect learning outcomes (Springer Educational Technology Journal, 2022). These findings suggest that while SNS offer collaboration opportunities, their effective educational use requires purposeful integration and student awareness of how to balance social and academic engagement.

As a result, the educational effectiveness of SNS depends on how students and educators use these platforms. Purposeful and structured use of social networking tools in academic tasks — such as setting clear collaborative learning goals, facilitating guided discussions, and integrating SNS with course objectives — tends to result in more positive collaborative outcomes. Conversely, when SNS are used without academic guidance, students may default to social or entertainment uses that detract from learning efforts.

Existing studies also consider the design and functionality of SNS as influential factors in collaborative learning. Research analyzing collaborative learning in social network sites highlighted that specific features — such as group formation, content sharing, and communication tools — contribute to effective collaboration by providing students with relevant functions to exchange knowledge, coordinate work, and sustain engagement (Khalifa University report, 2015). This indicates that both technological affordances and pedagogical strategies play roles in enhancing collaborative learning through SNS. The trends in research also underscore the importance of understanding student perceptions and attitudes toward SNS in educational contexts. When students perceive social networking tools as valuable for learning and collaboration, they are more likely to engage in collaborative activities and invest effort in joint tasks. This perception aligns with studies showing that SNS usage fosters engagement

and collaborative behaviors when students view these platforms as useful and supportive of their academic goals.

In summary, the relationship between Social Networking Sites usage and collaborative learning practices among students is multifaceted. SNS provide communication channels, resource-sharing opportunities, and interactive environments that support peer collaboration, active engagement, and knowledge co-construction. Empirical research from diverse educational settings shows that SNS usage can positively influence collaborative learning when used purposefully within academic contexts. However, the degree to which SNS enhances collaborative learning depends on factors such as student attitudes, academic self-efficacy, structured integration of SNS into learning activities, and awareness of potential distractions. Continued research is essential to deepen understanding of how SNS usage influences collaborative learning and to identify strategies for maximizing educational benefits while minimizing challenges in digital learning environments.

Objectives of The Study

Objectives of the Study were given bellow;

1. To examine the level of Social Networking Sites usage among students for collaborative learning purposes.
2. To investigate the relationship between Social Networking Sites usage and collaborative learning practices among students.
3. To determine the influence of Social Networking Sites usage on students' participation in collaborative learning activities.

Hypothesis of The Study

H01: There is no significant relationship between Social Networking Sites usage and collaborative learning practices among students.

H1: There is a significant relationship between Social Networking Sites usage and collaborative learning practices among students.

H02: Social Networking Sites usage has no significant influence on students' participation in collaborative learning activities.

H2: Social Networking Sites usage has a significant influence on students' participation in collaborative learning activities.

H03: There is no significant association between the level of Social Networking Sites usage and students' engagement in collaborative learning.

H3: There is a significant association between the level of Social Networking Sites usage and students' engagement in collaborative learning.

Significance of The Study

This study is significant as it contributes to a better understanding of how Social Networking Sites usage influences collaborative learning practices among students in contemporary educational settings. The findings of this study will help educators and academic institutions recognize the potential of social networking platforms as tools for enhancing student interaction, cooperation, and shared learning. The study will also assist policymakers and curriculum designers in developing strategies to integrate Social Networking Sites effectively into teaching and learning processes. Furthermore, the results may guide students in using social networking platforms more purposefully for academic collaboration, thereby improving learning outcomes and teamwork skills.

LITERATURE REVIEW
The rapid growth of digital technologies has reshaped how students learn, communicate, and collaborate. Social Networking Sites (SNS) such as Facebook, WhatsApp, Instagram, YouTube, and others have become widely used platforms for both social interaction and academic engagement. Researchers have increasingly examined how SNS usage influences collaborative learning — a pedagogical process where learners actively participate, share information, and construct knowledge together. Collaborative learning is considered essential in modern education because it promotes critical thinking, communication skills, student motivation, and academic achievement. The literature below explores empirical studies, theoretical perspectives, and key findings on how SNS are used to support collaborative learning practices among students.

Social Networking Sites and Learning Engagement
Many studies highlight that students actively use social networking platforms to engage with peers academically. Social media offers a familiar, accessible space where students interact, ask questions, share resources, and discuss learning materials outside traditional classroom hours. A study by Alvi (2021) showed that college students in India perceived social networking tools as beneficial for academic purposes, particularly in enhancing communication and learning support. This aligns with research reporting that SNS facilitate ongoing dialogue, helping students stay engaged with academic content and collaborative tasks (Mahnaz & Kiran, 2025a).

Similarly, the role of social networking tools in supporting online educational engagement was emphasized during the shift to remote learning caused by the COVID-19 pandemic. Suci, Muslim, and Chaeruman (2021) emphasized that SNS played a significant role in maintaining student interaction and collaborative learning when face-to-face communication was limited, enabling students to continue working together on assignments and group activities.

SNS Usage and Collaborative Learning Outcomes
Research consistently indicates that SNS usage supports collaborative learning outcomes. Du and Ibrahim (2025) conducted a systematic review revealing that social media usage enhances student cooperation, participation, and joint knowledge construction. This suggests that peers who actively use SNS are more likely to engage collaboratively and support each other academically. Lau (2020) also found that students using social networking platforms for educational purposes reported improved group coordination and communication, which fostered deeper learning and shared academic experiences.

In higher education contexts, students frequently use social media to form study groups and coordinate collaborative projects (Mahnaz & Kiran, 2025b). These virtual groups enable real-time discussion and file exchange, which supports collective problem solving and reduces barriers posed by different schedules or physical distance.

Theoretical Perspectives Supporting SNS in Collaborative Learning
The link between SNS usage and collaborative learning is often explained using social constructivist theories. According to Vygotsky's social constructivism, cognitive development is deeply rooted in social interaction. Learners construct

knowledge most effectively when they engage with peers and share perspectives. SNS provides platforms that facilitate such interaction, allowing learners to co-construct understanding through dialogue, discussion, and shared meaning. Zhou and Brown (2017) explained that using social networking tools aligns with constructivist learning principles because these platforms encourage participation, reflection, and shared knowledge creation.

Another theoretical perspective is the construct of collaborative knowledge building, which suggests that students working together can develop deeper understanding than individuals working alone. SNS offers technological affordances such as group messaging, shared documents, and discussion threads that make collaborative knowledge building more efficient and dynamic (Mahnaz & Kiran, 2025c).

Features of SNS That Support Collaboration

Scholars have identified specific features of social networking platforms that enable collaborative learning. Group pages, chat functions, content sharing, and multimedia tools are frequently cited as factors that promote interaction. In their study, Al-Rahmi, Othman, and Yusuf (2015) suggested that social media's interactive features make it easier for students to share documents, coordinate schedules, and discuss academic content collectively. These features reduce communication barriers and allow collaboration to be continuous and flexible.

Liu et al. (2022) noted that SNS features increase students' opportunities to interact, exchange feedback, and support one another throughout collaborative tasks. The presence of visual sharing, immediate messaging, and threaded conversations makes interaction more dynamic than traditional text-based emails or learning management system discussions.

Students' Perceptions of SNS for Collaborative Learning

Student attitudes toward SNS considerably influence how these tools are used for academic collaboration. Many studies report that students perceive SNS positively for learning collaboration. According to research by Tien et al. (2020), students felt more comfortable discussing academic problems in SNS chat groups than in formal classroom discussions. They appreciated the informal, less intimidating nature of social platforms for sharing ideas and asking questions.

Research also shows that when students view SNS as useful and easy to use, they are more likely to engage collaboratively (Alvi, 2021; Liu et al., 2022). Positive perceptions motivate students to use SNS for academic purposes and invest effort in collaborative tasks, ultimately resulting in better shared outcomes and deeper engagement.

Academic Achievement and Collaborative Learning through SNS

Several studies have connected SNS usage with improvements in academic achievement through collaborative learning. Lin (2025) reported that students who frequently collaborated via SNS demonstrated higher grades and better understanding of course materials than students who did not use SNS academically. Collaborative interactions on SNS helped students clarify concepts, share resources, and engage in peer tutoring — all of which contributed to academic success.

However, the relationship between SNS usage and achievement is complex. While SNS supports collaboration, overuse or distraction can negatively affect

academic focus. Research by Ahmed and Qazi (2022) showed that although students used social platforms for collaborative tasks, excessive non-academic use sometimes reduced study time and academic performance. This indicates that the impact of SNS on academic outcomes depends on how students balance academic and social use.

Challenges in Using SNS for Collaborative Learning
Although SNS has clear collaborative potential, several challenges have been identified in the literature. One common issue is distraction. Farooq and Saiti (2021) found that students often become sidetracked by entertainment content, reducing the effectiveness of SNS for academic collaboration. This suggests that while SNS tools can facilitate interaction, strategic guidance and self-regulation are necessary to ensure that collaboration stays focused on learning objectives.

Privacy concerns and misinformation are additional challenges. Some students hesitate to share academic work on public platforms due to privacy issues, while others may encounter inaccurate information during online discussions (Khan et al., 2023). These obstacles highlight the need for training students on digital literacy and safe use of social networking platforms.

Moderating Factors Affecting SNS-based Collaboration
Research also explores factors that moderate the strength of the relationship between SNS usage and collaborative learning. Academic self-efficacy is one such factor. Liu et al. (2022) found that students with higher self-efficacy were more likely to use social networking platforms effectively for collaborative tasks, as they were confident in interacting with peers and contributing to group work.

Similarly, institutional support and teacher integration influence how effectively SNS are used for collaboration. Tubaishat (2018) emphasized that when educators incorporate SNS into structured learning activities, students engage more purposefully in collaborative tasks. Conversely, lack of guidance often leads to unstructured use that may not support meaningful learning.

SNS in Different Educational Contexts
The research also reveals differences in how social networking platforms support collaboration across educational levels and contexts. In secondary schools, studies show that integrating SNS into group learning activities increases student motivation and engagement (Lee & Tsai, 2018). In higher education, SNS are often used for coordinating complex group projects, facilitating peer mentoring, and supporting cross-cultural collaboration (Martin & Bolliger, 2018).

During remote learning periods, the role of SNS became even more significant. Research by Suci et al. (2021) reported that during the COVID-19 pandemic, students used SNS to maintain academic collaboration, exchange learning materials, and provide emotional support. This adaptability highlights SNS's capacity to sustain collaborative learning even in challenging circumstances.

Comparative Studies on SNS Platforms
Comparative studies examine the effectiveness of different SNS platforms for collaborative learning. For example, several researchers found that instant messaging platforms like WhatsApp and Telegram are particularly effective for quick coordination and group communication due to their real-time

conversation features (Nasir & Mahnaz, 2026). In contrast, platforms like YouTube and Instagram are more useful for multimedia sharing and content-based learning collaboration.

These comparisons provide insights into how educators might select platforms based on specific learning objectives. Instant messaging may support coordination tasks, while multimedia platforms might be better suited for sharing visual explanations or student-generated academic content.

Recent Trends and Future Directions

Recent literature emphasizes the importance of integrating SNS with formal learning management systems to create hybrid learning environments that leverage the strengths of both formal and informal learning spaces. Research by Zhao et al. (2024) suggests that combining structured academic activities with SNS-mediated collaboration can enhance both engagement and learning outcomes.

Future research is moving toward understanding how artificial intelligence and adaptive learning tools integrated with SNS could further support collaborative learning. Early studies propose that AI can help personalize collaborative tasks, suggest peer partners, and recommend shared resources, making SNS collaboration more effective and targeted.

Recent empirical research by Mahnaz and Kiran (2024) examined personality-driven adoption of WhatsApp and Facebook for educational collaboration and found that students' personality traits significantly influenced their engagement in social networking platforms for academic purposes. Their study further demonstrated that academic performance mediated the relationship between social media usage and collaborative educational outcomes. The findings suggest that when students use SNS purposefully for academic interaction, collaborative learning practices and academic achievement improve significantly.

Similarly, Mehmood, Mahnaz, Mehrukh, and Shabbir (2022) reported a positive relationship between ICT utilization and academic achievement at the secondary level. Their study highlighted that technology integration enhances academic engagement and supports collaborative academic activities. These findings strengthen the theoretical foundation of the present study by demonstrating that digital tool usage—including social networking platforms—positively contributes to students' academic outcomes.

Furthermore, Mahnaz et al. (2025) emphasized the importance of structured academic supervision and innovative educational practices in improving academic performance at the university level. Although their study focused on supervisory effectiveness, it reinforces the broader argument that guided and structured integration of digital tools enhances student engagement and collaborative productivity.

Research conducted by Waheed, Kiran, Noreen, and Mahnaz (2025) also supports the integration of structured educational strategies within school environments. Their findings indicate that systematic academic planning improves student outcomes, suggesting that similar structured implementation of SNS in collaborative learning can maximize educational benefits.

Nazir, Kiran, Nazim, and Mahnaz (2025) further demonstrated that proper time management and academic structure reduce procrastination and improve researcher productivity. When applied to secondary education, these

findings imply that disciplined and purposeful SNS usage can support collaborative academic engagement rather than cause distraction.

Collectively, the research contributions of Mahnaz and colleagues provide empirical support for the argument that technology integration—when structured and academically guided—enhances collaboration, engagement, and academic performance. These findings align with the objectives of the present study, which examines the relationship between SNS usage and collaborative learning practices among students.

Overall, the literature demonstrates a strong, positive relationship between SNS usage and collaborative learning practices among students. Social networking platforms enable interaction, resource sharing, peer feedback, and continuous communication — all essential aspects of collaborative learning. While challenges such as distraction and privacy concerns exist, structured use and student training can mitigate many limitations. The research supports the potential of SNS as an educational tool, particularly when platforms are used purposefully with clear academic goals.

RESEARCH METHODOLOGY
Research Design
The present study adopted a quantitative research approach using a correlational research design. This design was considered appropriate because the study aimed to examine the relationship between Social Networking Sites usage and collaborative learning practices among students. A correlational design enables the researcher to measure the degree and direction of association between variables without manipulating them. The design was suitable for collecting numerical data through a structured questionnaire and analyzing the relationship between the independent variable (Social Networking Sites usage) and the dependent variable (collaborative learning practices).

Population
The population of the study consisted of all students enrolled in government schools of District Attock and Tehsil Jand. These students were selected as the population because they represent a large and diverse group of learners who are increasingly exposed to digital technologies and social networking platforms. The population included students studying at different grade levels within government schools, providing a comprehensive representation of the study area.

Sample and Sampling Technique
A sample was drawn from the target population to make data collection manageable and reliable. The sample size was selected using an appropriate sampling method to ensure representativeness of the population. Simple random sampling technique was used to select students from government schools of District Attock and Tehsil Jand. This technique gave equal chance to every student to be included in the study and helped reduce sampling bias. The selected sample adequately represented the characteristics of the population, allowing the findings to be generalized within the defined context.

Research Tool
A structured questionnaire was used as the research tool for data collection. The questionnaire consisted of two main sections. The first section collected

demographic information of the respondents, while the second section measured Social Networking Sites usage and collaborative learning practices among students. The items were developed based on relevant literature and aligned with the objectives of the study. Responses were measured using a Likert-type scale to quantify students' perceptions and usage patterns.

Reliability and Validity of Research Tool

To ensure reliability, the questionnaire was pilot tested on a small group of students who were not included in the final sample. The internal consistency of the research tool was measured using Cronbach's alpha coefficient. The results indicated that the questionnaire was reliable for measuring both Social Networking Sites usage and collaborative learning practices.

Validity of the instrument was ensured through content validity. The questionnaire items were reviewed by experts in the field of education and educational research to ensure clarity, relevance, and alignment with the study objectives. Necessary modifications were made based on expert feedback before final administration of the tool.

Data Collection Procedure

Prior permission was obtained from the relevant school authorities before data collection. The researcher personally visited the selected government schools of District Attock and Tehsil Jand to administer the questionnaires. The purpose of the study was clearly explained to the respondents, and they were assured that their responses would be kept confidential and used only for research purposes. The questionnaires were distributed and collected on the same day to ensure a high response rate. The collected data were carefully checked, coded, and prepared for statistical analysis.

DATA ANALYSIS

Objective 1

To examine the relationship between Social Networking Sites usage and collaborative learning

Table 1: Relationship between SNS_Usage and Collaborative_Learning

		SNS_Usage	Collaborative_Learning
SNS_Usage	Pearson Correlation		.642**
	Sig. (2-tailed)		.000
	N		368
Collaborative_Learning	Pearson Correlation		1
	Sig. (2-tailed)		.000
	N		368

The results indicate a strong positive correlation between Social Networking Sites usage and collaborative learning practices (r = .642, p < .01). This means that higher SNS usage is associated with greater engagement in collaborative learning. The significance value (.000) confirms that the relationship is statistically significant.

Objective 2

To investigate the relationship between Social Networking Sites usage and students' participation in collaborative learning activities.

Table 2: *Relationship between SNS_Usage and Participation*

		SNS_Usage	Participation
SNS_Usage	Pearson Correlation		.581**
	Sig. (2-tailed)		.000
	N		368
Participation	Pearson Correlation		1
	Sig. (2-tailed)		.000
	N		368

The table shows a moderate positive correlation between SNS usage and students' participation (r = .581, p < .01). Students who frequently use SNS are more involved in group discussions and joint academic tasks. The significance value (.000) confirms the relationship is statistically significant.

Objective 3
To determine the influence of Social Networking Sites usage on students' engagement in collaborative learning.

Table 3: *Relationship between SNS_Usage and Engagement*

		SNS_Usage	Engagement
SNS_Usage	Pearson Correlation		.607**
	Sig. (2-tailed)		.000
	N		368
Engagement	Pearson Correlation		1
	Sig. (2-tailed)		.000
	N		368

The results reveal a strong positive correlation between SNS usage and students' engagement (r = .607, p < .01). Students who actively use SNS are more engaged in collaborative discussions and tasks. The significance value (.000) confirms the relationship is statistically significant.

Findings
1. There is a strong positive correlation between Social Networking Sites usage and collaborative learning practices among students (r = .642, p < .01).
2. There is a moderate positive correlation between Social Networking Sites usage and students' participation in collaborative learning activities (r = .581, p < .01).
3. There is a strong positive correlation between Social Networking Sites usage and students' engagement in collaborative learning (r = .607, p < .01).

Discussion
The first finding indicates a strong positive correlation between Social Networking Sites usage and collaborative learning practices among students. This means that students who use SNS more frequently tend to engage more effectively in collaborative learning. This finding is consistent with Al-Rahmi, Othman, and Yusuf (2015), who reported that social media facilitates knowledge sharing and joint problem-solving among students. Similarly, Liu et al. (2022) found that students' use of social networking platforms enhances collaboration, interaction, and communication during group learning activities. Furthermore, Du and Ibrahim (2025) emphasized that SNS usage significantly supports

students in co-constructing knowledge and maintaining continuous academic interaction. These studies collectively reinforce the idea that SNS are powerful tools for fostering collaborative learning in educational contexts.

The second finding shows a moderate positive correlation between SNS usage and students' participation in collaborative learning activities. This suggests that frequent use of SNS encourages students to take part more actively in group discussions, joint assignments, and shared academic tasks. Tien et al. (2020) reported that students who used social networking tools for academic purposes participated more in class-related online discussions. Similarly, Alvi (2021) found that students perceived SNS as a useful medium for academic engagement, increasing their involvement in collaborative tasks. Suci, Muslim, and Chaeruman (2021) also highlighted that SNS usage during remote learning significantly enhanced students' participation and cooperation in virtual academic groups. These studies confirm that SNS usage positively influences active participation in collaborative learning.

The third finding reveals a strong positive correlation between SNS usage and students' engagement in collaborative learning. This indicates that students who frequently use SNS are more attentive, interactive, and motivated in collaborative academic activities. Lin (2025) reported that SNS-mediated collaboration increased engagement in online group projects. Martin and Bolliger (2018) found that students who actively used social media for academic purposes were more involved in peer discussions and collaborative problem-solving. Zhao, Xu, and Li (2024) also emphasized that hybrid learning environments integrating SNS enhance overall student engagement in collaborative learning activities. These studies collectively demonstrate that social networking platforms can significantly improve students' engagement in academic collaboration.

The findings of this study are strongly supported by Mahnaz and Kiran (2024), who found that the academic use of WhatsApp and Facebook significantly enhances collaborative engagement and academic performance. Their study demonstrated that students who intentionally use SNS for educational collaboration show improved academic outcomes, which aligns with the strong positive correlations identified in the present research.

Similarly, Mehmood et al. (2022) established that ICT utilization positively influences academic achievement at the secondary level. This supports the argument that SNS usage, as a form of digital technology, enhances collaborative learning and student engagement.

Moreover, Nazir et al. (2025) emphasized that structured and disciplined academic practices improve productivity and reduce procrastination. Applying this perspective to the present study suggests that guided SNS integration can strengthen collaborative learning outcomes while minimizing potential distractions.

The findings also resonate with Waheed et al. (2025), who highlighted the importance of structured educational frameworks in improving student performance. Therefore, integrating SNS within clearly defined academic objectives can maximize collaborative benefits.

Conclusion
This study concludes that Social Networking Sites usage has a significant and positive relationship with collaborative learning practices, students' participation,

and engagement. Students who actively use social media platforms for academic purposes are more likely to participate in group discussions, share resources, interact with peers, and co-construct knowledge, which enhances overall collaborative learning outcomes. The findings indicate that SNS are not only tools for social interaction but also serve as effective educational resources that foster communication, engagement, and academic cooperation. By integrating SNS into learning processes, educators can improve collaboration, participation, and student engagement, which ultimately contributes to better learning outcomes and academic success.

Recommendations

1. Teachers and educators should integrate Social Networking Sites into collaborative learning activities to enhance student interaction, participation, and engagement.
2. Educational institutions should provide training to students on the effective and safe use of SNS for academic purposes to maximize collaborative learning benefits.
3. Policymakers should encourage the development of school-based programs and guidelines that incorporate SNS as a part of collaborative learning strategies.
4. Students should be guided to balance academic and non-academic use of SNS to prevent distractions while promoting engagement in collaborative tasks.
5. Future research should explore the use of specific SNS platforms and their differential impact on collaborative learning, participation, and engagement.

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