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Influence of Social Media on A Collaborative Learning Environment in Mati North District

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Abstract:
The study aimed to determine the extent of social media use in frequency, platform type, instructional purpose, integration with the curriculum, and teacher training and support. It also examined the extent of collaborative learning environments in terms of online participation, group communication, resource sharing, and collaborative project work. Results revealed that both the use of social media platforms and the establishment of collaborative learning environments were rated as extensive across all domains. A statistically significant relationship was found between social media use and collaborative learning ($r = 0.244$, $p < .007$), indicating a modest yet meaningful influence. Regression analysis identified that the type of social media platform, integration with the curriculum, and teacher training and support had significant positive effects. At the same time, the purpose of use showed a significant but negative influence. Frequency of use, however, was not a significant predictor. The findings underscore the importance of strategic, purpose-driven, and well-supported social media integration in enhancing collaborative classroom practices. Recommendations are provided to improve policy, pedagogy, and professional development.

Chapter 1 – Introduction

One of the biggest challenges is the uneven access to technology and varying levels of digital literacy among students. Remote and hybrid learning have become the new normal, which has created many challenges for teachers. Additionally, traditional teaching methods have had to be adapted to virtual platforms. While using social media platforms for teaching and learning purposes can have benefits, it can also lead to privacy and online safety concerns. As a result, balancing the use of social media for educational purposes with addressing these concerns has become a key challenge for teachers.

Social media has significantly impacted education, presenting both opportunities and challenges. Teachers must now navigate a digital landscape where information is rapidly available, and students engage in various online activities. While social media can be an excellent tool for collaborative learning, its drawbacks must be addressed. Teachers must also focus on professional development to improve their technological and pedagogical skills and integrate social media into their teaching. As Rohr et al. (2022) point out, as educators continue to adapt to the post-pandemic educational environment, addressing these challenges and taking advantage of social media platforms' benefits to promote effective and inclusive education is necessary.

In Texas, USA, teachers face challenges with internet connectivity in remote areas. The Philippines can improve collaborative learning environments through a multifaceted approach. Firstly, it is crucial to invest in infrastructure development to expand and enhance internet connectivity in remote regions. Collaborative efforts from the government , private sector, and non-governmental organizations can

help establish reliable and affordable internet access, making online collaborative learning more accessible (Brown, 2020).

In addition to high-speed internet, alternative technologies can be used to ensure education is accessible to everyone. Offline e-learning platforms and mobile-based applications are some options that can be explored. Educational content can also be tailored to accommodate intermittent connectivity and enable offline interactions to bridge the digital divide. Community resources like community learning centers or mobile educational hubs can be utilized as focal points for students to access online materials and engage in collaborative activities. Blended learning models that combine online resources with offline materials, such as printed modules, can provide a more inclusive and adaptable learning experience (Kaiser, 2023).

In the Philippines, the focus on digital literacy training for educators and students can empower them to navigate online collaborative platforms effectively. By addressing these challenges systematically and adopting innovative strategies, the Philippines can align with global trends in collaborative learning, ensuring that educational opportunities are extended to all, irrespective of geographical constraints (Flores et al., 2023).

Some parts of the Philippines have struggled with internet connectivity in remote areas, but the country can keep up with the trend of enhancing collaborative learning environments. A multi-faceted approach is necessary, starting with investments in infrastructure development to expand and enhance internet connectivity in remote regions. Collaboration among the government, private sector, and non-governmental organizations can help establish reliable and affordable internet access, making online collaborative learning more accessible. Alternatively, technologies less dependent on high-speed internet, such as offline e-learning platforms or mobile-based applications, can be explored (Ali, 2023).

Tailoring educational content to accommodate intermittent connectivity and enabling offline interactions can bridge the digital divide. Furthermore, leveraging community resources, like community learning centers or mobile educational hubs, can serve as focal points for students to access online materials and engage in collaborative activities. Incorporating blended learning models that combine online resources with offline materials, such as printed modules, can provide a more inclusive and adaptable learning experience (Golob, 2023).

In Mati, Davao Oriental, training in digital literacy for both educators and students acts as a powerful means to promote inclusive and equitable education. Providing the skills to use effectively online collaborative platforms, this initiative not only improves teaching and learning experiences but also helps close the digital gap, giving marginalized communities improved access to educational resources. Tackling these challenges with innovative strategies allows local educators and public schools to keep pace with global trends in collaborative learning, ensuring that no student is disadvantaged due to geographical or economic barriers. This study ultimately highlights the significant social value of digital literacy in advancing educational equity, empowering communities, and fostering sustainable development by cultivating a generation of digitally skilled individuals who can succeed in an increasingly connected world.

Review of Significant Literature

This section provides an overview of the relevant literature, which explores various perspectives authors present across international and local contexts. The literature review encompasses related concepts and studies, delving into using social media platforms as an independent variable in classroom settings. This includes the frequency of use, types of social media platforms, purposes of use, integration with the

curriculum, and teacher training and support. Additionally, the review considers the collaborative learning environment as a dependent variable in ICT-integrated classrooms, looking at aspects like online participation, group communication, sharing of resources, and collaborative learning.

The Use of Social Media Platforms in the Classroom Setting

Using social media platforms in the classroom involves intentionally incorporating online networking tools into the educational experience (Chukwuere, 2021). It represents a departure from traditional teaching methods by leveraging the popularity and accessibility of social media to enhance communication, collaboration, and interaction within the educational environment. This concept acknowledges the transformative potential of platforms like Facebook, Twitter, Instagram, or other similar tools to extend learning beyond the physical classroom. Teachers may employ these platforms to create dedicated groups for class discussions, share relevant resources, facilitate collaborative projects, and foster a more dynamic and participatory learning experience.

Social media has become an integral part of modern communication. College students who use these platforms frequently are usually aware of their basic functionality but may need to be fully informed about their broader impact beyond social networking. In reality, social media intersects with a complex legal landscape that even the most enthusiastic users may find challenging to navigate (Golob, 2023).

Social media platforms offer students in developing countries a continuous opportunity to positively impact their learning process and academic performance. While some scholars believe social media platforms have no positive impact on academic progress, a study by Chukwuere (2021) found that they improve academic performance, communication, interaction, engagement, and self-directed learning.

Social media can be helpful, but it also poses risks. Educators, psychologists, and graduate students should be mindful of their online presence and engagement. Flores et al. (2023) discuss ethical considerations and ways to support growth through proper social media use. The guidance applies to all school psychologists.

The concept emphasizes leveraging social media's familiar and engaging nature to create a space where students can interact, share ideas, and collaborate on educational activities. While implementation requires careful consideration of privacy, digital literacy, and maintaining a focused learning environment, using social media platforms in the classroom reflects a recognition of the evolving ways technology can contribute to modern educational practices (Welch, 2023).

Frequency of Use. The frequency of use of social media platforms in the classroom setting is crucial for their effectiveness in education. It refers to how regularly they are integrated into the teaching and learning processes. This includes posting educational content, participating in discussions, sharing resources, and collaborating on projects. In short, it is about having social media present regularly and intentionally incorporating it into the educational routine.

Social media's ubiquitous presence has transformed how information is shared and connections formed amongst individuals globally. Educators now leverage the vast reach of social platforms to continuously expand their knowledge through diverse perspectives, gather instant feedback from a wide network, and nurture global relationships with other pedagogues. Despite social media's growing influence in education, further review is still warranted regarding how these channels could particularly enhance the function of physical educators. As those in the field of physical culture frequently experience perceived insignificance within their institutional environments, the empowering aspects of social media provide an avenue to surmount marginalization and bolster perceived importance. This expansive examination discusses how participating in online communities allows physical educators opportunities to navigate perceived

marginalization and promote their significance through sharing challenges, victories and insights with a dedicated following. (Schulz and Gaudreault, 2023).

On the contrary, educator quality can vastly shift pupils' tutorial success (Hattie, 2023). Heightened participation in internet based media as a collective public stage to dispense musings, perspectives, and convictions may permit analysts to investigate viewpoints on the working condition and attrition depicted in instructors' voices.

Kaiser (2023) uses thematic substance examination to inspect discussions and components mostly talked about by instructors concentrating on leaving utilizing the TikTok online media stage. Advanced entertainment gives instructors a method to interface with others and offer their considerations while keeping up a theorized level of expert separation from their work environment. This examination looks at how instructors utilize web-based media to give a window into their study hall, working conditions, and choices to leave or remain.

Prior research has noted a connection between the loss of experienced teachers at a school and declines in student success (Hanushek et al., 2016; Holme et al., 2018).

Teachers of mathematics perceive the actors' deconstruction of their practices as an alternative way to establish knowledge and continue to be surprised by the fact that social media is used as an informal learning platform to facilitate professional development. Anderson et al. (2023) studied more than 14,000 members of a Facebook group, reporting that teachers collectively use the space to receive support to critique what they identify as poor teaching practices. In the comments other community members are urging us to 'rehumanise' mathematics classrooms by resisting along these lines.

Schools were able to get a sense of how much students are utilizing social media, which can be helpful for educators to understand how well-embedded it's become in the learning experience. This data can then be analyzed to measure its impact to student engagement, interaction and collaborative learning. given the right balance of frequency it can also be a meaningful and sustainable medium for learning. This will ensure that students are exposed to a dynamic and interactive learning experience (Anderson et al., 2023).

Form of Social-Media. Teaching strategies use social media in the classroom. There are different use cases for each type, such as Facebook for groups and communities, Twitter for real time updates, Instagram or Pinterest for images. Educators may opt for platforms considering educational goals, content, and interface preference (Waters et al., 2020).

Greater knowledge is required about the role of social media use in digital stress during early adolescence. It also emerged themes in what referred to specific digital stressors, such as digital waste of time and exposure to harmful content from passive use in social media, unwanted exposure to strangers, expectations for perfectionism and sexualization from social media broadcasting. These pressures seem like a part of my EVERYDAY. Supporting social and emotional resources and enacting privacy settings may enhance resilience against digital stress (Winstone et al., 2023).

The ratios from Rohr et al. in 2022 that investigated San Francisco State University (SFSU) students enrolled in two introductory online self-directed asynchronous courses and their utilization of social media tools for personal, professional, and academic use. The study also compared the degree of interaction and engagement of Twitter as a classroom and a course requirement. The examination comprised 104 pre and 34 post-semester questionnaires. The research revealed that, even if far less used in comparison to other social networking platforms, Twitter use had been rather nice among the students. But findings were mixed, and the study draws implications on how we can use Twitter well in online learning.

The study examines whether social media can be a pedagogical tool for sports management education. Brown and Pederson (2020) studied the impact of social media on the classroom community and found mixed results. The study concludes with pedagogical and practical implications.

Social media platforms have increased cyberbullying among students. Waters et al. (2020) provide middle school social studies teachers with practical resources to address cyberbullying in the classroom, connecting it to character development and citizenship goals.

Social media can help train communication professionals. Bruguera et al. (2022) found that communication students use social media differently, with some platforms being more static (Wikipedia, blogs, and YouTube) and others being more interactive (Twitter et al.). The study's findings could improve communication studies and make them more flexible, collaborative, and personalized. Future studies could investigate how COVID-19 has impacted social media's role.

When selecting the right platform for a learning environment, it's important to consider the unique features and strengths of different social media platforms. This will help ensure that the chosen platform aligns with educational goals and enhances communication, collaboration, and engagement within the classroom.

Purpose of Use. The purpose of using social media in the classroom is to achieve specific educational objectives. These include facilitating communication, encouraging collaborative learning, sharing educational resources, fostering student engagement, and creating an interactive learning community. Whether it is for conducting class discussions, distributing supplementary materials, or promoting peer-to-peer interaction, social media platforms can enhance the overall educational experience (Aydogmus et al., 2023).

Teachers' Use and Perception of Social Media for Professional Development Ali's (2023) study discovered that teachers utilize social media for personal and professional development. They found the content accessed on these platforms helpful and as substitute for resource constraints. It is likely that students have positive perceptions of the use of social media and hence can practice as it can be considered to be an effective educational tool.

A study by Alghamdi (2022) found that the Instagram platform can enhance students' English language learning. The study found that using Instagram positively impacted student's achievement scores, showing that it can supplement formal teaching by allowing students to practice writing in English as part of their everyday use of the platform.

The next section describes guiding principles for starting and running peer tutoring groups on social media. These principles were formulated from a design-based research approach that built on theories of peer learning and participation barriers in low socio-economic contexts as well as feedback from high school and tertiary students in Cape Town, South Africa. Those developed principles could serve as guidance for other others in the similar contexts who want to utilize a tutoring group via the social media on educational purposes (Campbell, 2019).

Digital media provides opportunities for interactive math activities, but digital teaching platforms need more support. Textbooks still play a significant role in classrooms. An analysis reveals that textbooks influence digital teaching platform design. Static features and lecture-like videos introduce new concepts. Interactive activities are expected in tasks. A combination of elements is used in mathematical processes, and digital features are used when needed. Sparse dynamic and interactive features are discussed, and suggestions are made for digital teaching platform development (Dyrvold, 2022).

This concept emphasizes the importance of clearly understanding the intended purposes when integrating social media into education. Educators need to carefully select appropriate platforms, design meaningful

activities, and assess the effectiveness of social media integration based on the achievement of educational goals. This purpose-driven implementation approach maximizes the positive impact of social media in the dynamic landscape of the classroom setting. (Campbell, 2019).

Integration with Communication.

The concept of integration with communication as a component of using social media platforms in the classroom setting underscores the interconnectedness of these platforms with effective communication strategies in education. It emphasizes that the successful use of social media in the classroom is not merely about the technology itself but, more importantly, how it enhances and facilitates communication (Xu et al., 2023).

Niels Kerssens and José van Dijck's (2022) essay explores the impact of platformization on K-12 education's pedagogical autonomy, a critical public value. The authors raise two related concerns: First, the incorporation of education into a global digital infrastructure challenges schools' institutional pedagogical autonomy. Second, the integration of digital platforms with classroom educational practices undermines teachers' professional pedagogical autonomy.

The authors analyze symposium contributions on the Amazon infrastructure and platform practices in classrooms. They explore how critical research in platform studies relates to building educational platform infrastructures and the impact of digital platforms on teaching and learning. The essay concludes with recommendations for future tech governance to benefit schools and teachers (Xu et al., 2023).

Teachers must have competencies in news media literacy and motivation to help students develop critical thinking skills about media. However, data shows challenges in implementing media literacy in classrooms, which are associated with a generational divide due to Australians' increasing use of digital sources and social media platforms to consume news. The findings suggest that addressing these issues requires new resources, a review of teacher training, curriculum support, more comprehensive community involvement, and further research in the field (Nettlefold, 2021).

Research suggests that positive outcomes are more likely to occur when students are highly engaged and focused in the classroom. Teachers can adopt Positive Behavior Interventions and Supports (PBIS) to improve engagement when on-task behavior is low in traditional classroom settings. PBIS strategies such as establishing clear routines and expectations, providing explicit instruction on expected behaviors, acknowledging good behavior, and offering frequent opportunities to respond have effectively improved engagement across different grade levels. As more teachers move to virtual instruction platforms, these evidence-based practices should continue to be incorporated into their teaching methods. However, many teachers may need more experience using these strategies to improve engagement in virtual classrooms. Therefore, teachers must have the knowledge and skills to implement PBIS in virtual classroom settings to enhance student outcomes, especially in light of the recent shift to virtual instruction due to the pandemic (Speight & Kucharczyk, 2021).

The author suggests that how digital platforms shape literacy can be better understood by studying gaming platforms, which are a popular choice among gamers. This understanding can help researchers and educators be more aware of the social, political, and economic factors that influence learning and literacy in digital platforms. (Robinson, 2023).

Social media tools such as messaging, forums, and collaborative spaces allow for exchanging information, asking questions, and engaging in discussions. Integrating social media enhances interaction and

engagement in the classroom. Combining technology and effective communication practices creates a dynamic and collaborative educational environment.

Teacher Training and Support. Integrating of social media platforms in educational setting emphasizes the need for teachers to be trained and supported. This model also focuses on the importance of adequate professional development about the appropriate content knowledge, pedagogy, and technological tool content, for teachers to integrate online tools successfully in pedagogical practice. As social networking remains an indispensable part of education, the importance of comprehensive training endeavors involving technical and pedagogical perspectives should be underlined. Such efforts will support teachers in developing high-quality student learning experiences (Dilling et al., 2023).

The text appears to be written correctly, with no apparent spelling, grammar, or punctuation errors. However, I can rephrase the text to make it more transparent. The study revealed that university leaders consider social media a crucial aspect of their job. They use it to inform people and establish a platform. However, some of them also find social media to be inappropriate. The findings suggest that university leaders need training to use social media and build relationships effectively (Brickel, 2022).

Dilling et al. (2023) shared that 14 pre-service teachers at the University of Siegen received special training on online learning platforms for mathematics education. They completed pre- and post-reflection questionnaires, and the results were analyzed qualitatively to identify six main categories and 51 descriptors for their attitudes towards these platforms.

Pavek and Vaughan (2023) found that teacher support during independent reading impacts early readers. The shift to online learning required teachers to adapt traditional strategies. This guide explores a digital reading check-in strategy for early readers on digital platforms. It was successful in a first-grade classroom and can be used with any digital reading platform.

The Maximize Program helps educators use equity-focused behavioral supports through resources and procedures. Owens et al. (2023) conducted a study with ninety elementary school teachers from three schools who used the interactive Maximize Technology Platform to learn about equity literacy, assess their practices, and set goals. The results show promise for interactive technology to facilitate professional learning and goal-setting about equity initiatives and to help implement equity-focused practices.

Ongoing support is essential to tackle challenges, offer guidance, and keep up with the ever-changing trends in educational technology. This notion emphasizes that providing proper training and support to teachers is crucial to ensure they feel confident, competent, and well-equipped to handle the complexities of integrating social media platforms into the classroom. By investing in professional development opportunities and creating a supportive environment, educational institutions can maximize the positive impact of social media on teaching and learning outcomes (Zenda et al., 2020).

Collaborative Learning Environments in ICT-Integrated Classrooms

Classroom-based Collaborative Learning within ICT Enhanced Classroom Learning Environments The complexities of a classroom are resolved or even utilized in a classroom setting where ICT tools are to be embedded into the class facility such that the ICT tools become part of the course curriculum. This philosophic shift looks to alter from teacher-focused models to student focused models. ICT-integrated classrooms enable students to participate in collective activities, discussions, and projects assisted by digital resources such as shared work surfaces, virtual classrooms, and multimedia.

It is essential to shift the focus of teaching from being centered on the teacher to being centered on the student. This change can be facilitated by implementing communication platforms and collaboration models, which can increase participation and improve learning outcomes. The adoption of ICT in the

classroom can be guided by an ICT training policy for teachers. It is crucial to adequately develop teachers' ICT fluency and provide appropriate ICT infrastructure and training policies to enhance teaching and learning practices in rural secondary schools (Zenda and Dlamini, 2023).

A survey that was carried out by Lomos, Luyten and Tieck in 2023 showed how the use of digital learning resources (DLR) and teacher resources (TR) are two influential elements that enable the integration of ICT in schools. Moreover, leadership and cooperation, in the type of a focused vision on the use of ICT for teaching, is another element. The study indicates that only investing in ICT infrastructure is not sufficient, there should also be teacher's belief, attitude, and expertise in ICT for the successful employment.

Only some ICT work-integrated learning projects with Indigenous partners and universities are reported. Yeo Wee et al. (2022) reported on two successful student work placements in Indigenous communities, where software development was done collaboratively. The article provides recommendations for creating successful WIL opportunities with Indigenous communities.

Collaborative learning emphasizes subject-specific knowledge and 21st-century skills like communication, critical thinking, and teamwork. ICT integration enables real-time communication, document sharing, and interactive problem-solving, fostering a dynamic, inclusive, and participatory educational experience. This prepares students for a digitally driven society and transforms classrooms into collective learning hubs.

Online Participation. The idea of online participation as a part of collaborative learning environments that integrate ICT in classrooms emphasizes the involvement of students in virtual spaces to build knowledge and reach educational goals together. Hoffman et al. (2023) stated that in an ICT-integrated collaborative learning environment, online participation includes various activities such as virtual discussions, group projects, collaborative document editing, and interactive problem-solving.

Students contribute to the learning process through active involvement in online platforms, fostering a sense of community and shared responsibility for learning outcomes. This concept acknowledges that online participation goes beyond mere content consumption; it involves students actively shaping and co-creating knowledge in a digital landscape.

Choi and Hur (2023) conducted a review of research on students' passive participation: collaborative online learning activities via computer mediated communication tools in school environment. Passive participation has been characterized with three categories: lurking for read-only behavior, legitimate peripheral participation for low-contributing behavior, and free riding for no contributions. Most researches focused on four aspects: motivations, the types of participation, influence of learning effect, and help learners. The ones that do primarily focus on passive participation as an aspect of behaviour of numerous kinds of participation, few on passive read-only behaviour.

The definition of passive participation should be clarified, as it is not used consistently in the literature. There are limited studies for this issue and results should show more coherence suggesting further studies, especially related to the COVID-19 pandemic. It is a requirement for teachers to help students, and it is necessary for studies to design a way in which teachers can recognize a guest student and push their cognitive involvement in online collaboration learning environment Choi and Hur (2023).

The research investigated the influence of OLS on professional collaborative learning in the Irish primary context. It found that OLS supported collaboration and teacher co-construction of knowledge on STEM approaches to teaching (2023).

Mapile et al. (2023) found that online CL enhanced students' academic achievement and interaction. Centers outside the carrying activity led to increased scores. Transcript recordings indicated widespread pedagogy of integration and exploration during online collaborative learning. Students reacted favorably to this approach. Interpretative phenomenological analysis identified similarities and differences in the process of collaborative learning in face-to-face and online contexts.

Suaco et al. (2023) investigated the psycological effect of on-line learning of high school students on cooperative assessment. The results demonstrate that collaboratively conducting summative assessment helped to enhance academic achievement, completion of tasks, communication, and teamw ork for online learning. Although teaching and learning online had its struggles, it also was an effective place for students to collaborate toward a common goal.

Group Communication. ICT tools such as online discussion forums, video- conferencing and cooperative document creation support group communication. It is team work, sharing, questioning and solving the problem as a team together. Good and established patterns are essential for both good communication and relationship learning. Interpersonal relationships among the members can strongly influence group dynamic and learning of students. In a recent paper, Feng et al. (2021) suggested that social proximity in a community had positive affect on the collaborative learning. Students who were more socially close were more satisfied. These discoveries can be informative for how to effectively design group learning activities that promote sense of community among group members. Group work as the common pedagogic collaborative practice in higher education that has potential to be effective requires students to face social and cognitive difficulties at the same time. COVID-19 has compounded these issues by creating obstacles for in-person contacts. Teachers can apply cooperative learning pedagogies to facilitate students to improve their social connectedness in learning, to capture and solve commonly shared problems via questionnaires, or to encourage students to report these problems to the teacher. This has implications for future holistic learning settings that adopt extended-reality technologies (Planey et al., 2023).

According to Zambrano et al. (2023), expert groups regulated and triggered more, and engaged far less in opi and givenoto than non-foraging groups.

The integration of ICT in classrooms does improve collaborative learning experience and sense of community in a class (Ouyang et al., 2023).

Sharing of Resources. In ICT linkage rooms, students disseminate educational materials, reference books, and information through net-based services, which make education-shared content a knowledge reservoir. This collaborative framework recognizes that digital technologies allow students to share and access a myriad of resources, and thus create knowledge together.

An article by An et al. (2022) a cooperative maker project that integrates the arts in a virtual framework. The project combined arts, music and coding, helping teachers feel more connected, positive and satisfied in their online teaching experience. The all-hands-on, social-on, hearts-on, and minds-on learning environment was both learner and teacher centered for teacher participants in the online venue. The paper also discusses the potential implications of the results for art-integrated maker projects in public schools. What is needed, as argued by Ricke (2022), is software that can help meet the issues of collaborative learning and pay attention to increasing the student engagement in active-learning pedagogy, particularly idea sharing.

In this article, we address employing self-access materials for intercultural and Global English: learning various materials independent from a placed teaching within a specified curriculum. Resources with peer-learning components were more effective for self-access learning than those with longer-term

commitment. Features of cooperative learning on self-access engagement proved attractive for students (Humphreys, 2023).

Collaborative and Cooperative Learning A Co-Worthy Comparison in the Learning Space During the 1960s and 1970s, two contrasting approaches to learning developed. Although characterized by their own distinct features, the two approaches also have some in common. But knowing the connection between these two terms is it can get confusing, and leads to ambiguity. Yang (2023) summarizes a short history of collaboration and cooperation learning in order to address this problem. In this review, we aim to identify the roots of each approach and when they branch out and converge from each other.

Farahian et al. (2022) explored the knowledge sharing behavior and perceptions of reflective thinking in English Literature courses, among undergraduate students in online mode. "The eight corresponding fit indicators were also well established and their correlations with the factors shaping knowledge sharing were mostly accentuated highlighting, in particular, high coefficients for interpersonal influence on knowledge sharing and on actual knowledge sharing behavior. The findings validated the mediating effect of knowledge sharing and the proposed model of the interrelationships among the study constructs. Educational implications were considered.

Collaborative platforms and cloud storage enable real-time access for collaborative learning. Students collectively curate and use resources to improve their understanding of the subject matter. ICT in learning environments creates a dynamic and inclusive space where learners contribute to and benefit from a shared database of educational materials.

Collaborative Project Work. Project work involves students collaborating on assignments, tasks, or projects that require collective effort, problem-solving, and technology integration. This approach recognizes that technology tools, such as online collaboration platforms, project management software, and multimedia creation tools, facilitate seamless coordination among students. This, in turn, allows them to jointly contribute to the planning, execution, and presentation of their projects.

Chen and DU (2022) investigated project-based online intercultural collaboration learning in Denmark for non-native beginners' CFL learning. It was found that there was no significant difference of their scores of knowledge test between two classes, but the experimental class using PBL significantly performed better on the project results. It is proposed that the PBL way of learning can benefit the CFL rookies. Intercultural collaborative online components facilitated students' comprehension of target culture theory and real-life experience.

Authorship in scientific publication is becoming more collaborative. Mentoring structures between faculty and students need to change so that faculty can supervise (advise) multiple students, while students will receive feedback from multiple members of their faculty and can become involved in peer mentoring. We describe the student mentor model at work in the Earth Science Experiential and Indigenous Learning project.

Mariani et al. (2023) describe present work to improve English language skills, advise about conducting being replicated at NE CCs for other language faculty and explain the challenges of implementing joint English language drama projects at the college. It also examines learners' experiences of and self-perceived learning via the CDS participatory drama.

The EFL class followed the pedagogical frameworks of project-based learning and content language-integrated learning. The implementation of these frameworks is described in detail to provide a better understanding of how the projects were conducted. Finally, the text presents opportunities and challenges for implementing online collaborative EFL projects (Chen et al., 2022).

This study examined the perceptions of faculty and community partners who collaborated on service-learning projects. While there was general agreement on the goals and outcomes of the projects, there were differences in perspectives based on the level of involvement of each partner. To create sustainable partnerships, it is essential to communicate goals clearly and debrief after the project. This will ensure that everyone benefits from the students' work and establishes a meaningful relationship. (Rosenberg and Statham, 2023).

Collaborative project work involves students using their diverse skills and perspectives to complete assignments together. It emphasizes teamwork, communication, and shared knowledge creation in a digital environment. Integrating ICT enhances efficiency and equips students with valuable skills, including online collaboration, project management, and using technology for academic and creative purposes.

Theoretical Framework

This research is based on the Theory of Mishra, P., & Koehler, M. J. (2006). Use of technology can enhance learning experiences. The TPACK framework broadly accepts that effective teaching practice is the result of the interchange of three essential bodies of knowledge: technological knowledge (TK), pedagogical knowledge (PK), and content knowledge (CK). The goal of the framework is to encourage cross-pollination among the three areas and the development of a more unified whole that is stronger than the sum of its parts.

TPACK principle is thus that effective technology integration is a function of all three classes of knowledge (pedagogical, content, and technological) in a given context. it is not simply to learn technology or to acquire deep understanding of the content is required, TPACK i.e., these components need to be skillfully incorporated, is the conjecture! Teachers with robust TPACK are able to judiciously choose and use technology tools that are most appropriate for specific pedagogical goals and the type of content to be taught. They know how to use technology to enrich pedagogy for substantive learning.

This research investigates the potential of social media in the context of an ICT integrated class, to facilitate collaboration as an instructional method of learning. The Technology, Pedagogy, and Content Knowledge (TPACK) framework is used to explore the intricate relationships among technology, pedagogy, and content knowledge. TPACK researches how teachers use social media tools within their teaching methodologies and how it affects the curricular content and pedagogy.

Through the lens of the TPACK model, this study seeks to uncover how teachers are able to effectively position themselves at the technology-pedagogy-content nexus when they are integrating social media into collaborative learning settings in an ICT-integrated classroom. This analytical method helps to understand complex dynamics of technological integration into education. It adds to a more general discussion of how we might improve teaching by critically and deliberately adopting digital technology.

The community of inquiry (CoI) principle by Iturber-LaGrave (2020) is key to online and blended learning. It needs cognitive, teaching and social presence in order to develop a supportive, interactive community of inquiry. It focuses on knowledge construction through critical thinking, inquiry and discourse, as well as the formation of community and relationships between the participants.

This research investigates how social media can facilitate collaborative learning contexts in ICT-integrated classrooms. It applies CoI principle and analyzes the three core presences in CoI model: cognitive presence, social presence, and teaching presence. The critical thinking, knowledge construction, and inquiry-based among the students in social media environments are the concerns and the subject of cognitive presence in this study.

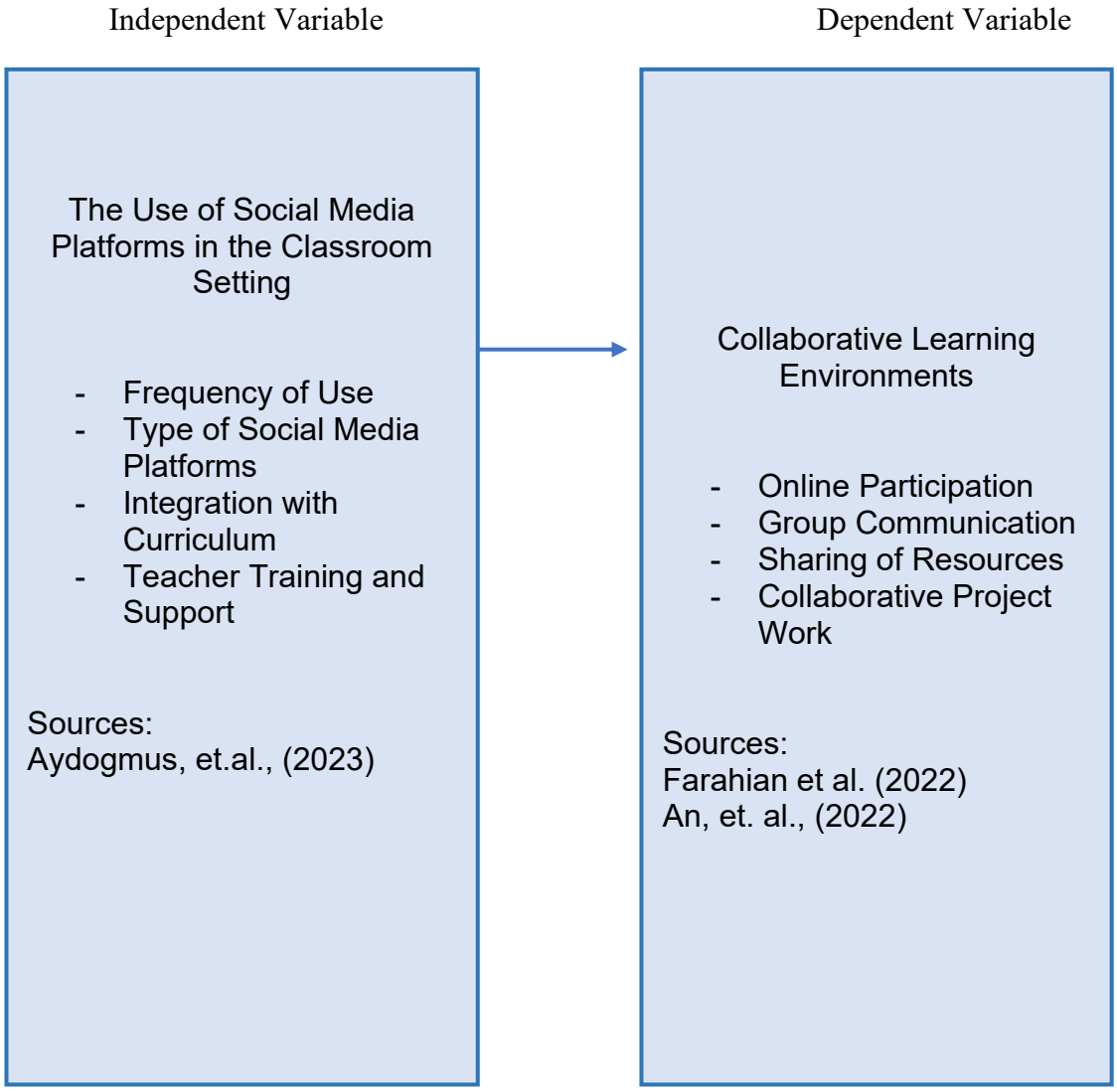

Figure 1. Conceptual Framework of the Study

The text explores how social media platforms contribute to developing a vibrant and engaging learning community, enhancing the learning experience, and informing discussions.

Statement of the Problem

The study was purposely conducted to determine the extent of the role of social media in augmenting collaborative learning environments. This specifically sought to answer the following statement of the problem:

1. What is the extent of the use of social media platforms in the classroom setting in terms of;
1.1. frequency of use;
1.2. type of social media platforms;
1.3. purpose of use;
1.4. integration with curriculum; and
1.5. teacher training and support.
2. What is the extent of collaborative learning environments in terms of;

2.1. online participation;
2.2. group communication;
2.3. sharing of resources; and
2.4. collaborative project work.
3. Is there a significant relationship between social media use in the classroom and collaborative learning environments?
4. Which among the domains of the use of social media platforms in the classroom setting significantly influence collaborative learning environments?

Hypotheses

To justify the posed theoretical and conceptual frameworks cited by the study, the following null hypothesis was tested at 0.05 level of significance, namely:

Ho1: There is no significant relationship between social media usage in classroom and collaborative learning environment.

and,

Ho2: No domain of use of social media platforms in classroom would have a significant effect on collaborative learning climates in ICT integrated classroom.

This projected study focused on the advantages for the interested parties. The results will be important for the following:

Public School District Supervisor

The findings of this study provide District Supervisors with insights into the effectiveness of social media integration in collaborative learning. This information aids in making informed decisions regarding implementing or improving ICT strategies across multiple schools. District Supervisors can use the study's outcomes to plan targeted professional development programs for teachers, focusing on enhancing their skills in leveraging social media for collaborative learning within an ICT-integrated framework.

School Principal and Administrators

School Heads can use the study's results to strategically plan the integration of social media into the school's educational practices. This includes optimizing resources, infrastructure, and training programs to support collaborative learning initiatives using ICT. Understanding the role of social media can help School Heads create a more dynamic and engaging learning environment, aligning with contemporary educational practices and preparing students for digital citizenship.

Teachers

The study outcomes offer teachers valuable insights into practical strategies for integrating social media into their teaching practices, enhancing collaborative learning experiences. It provides guidance on optimizing these tools to foster meaningful student engagement. Teachers can use the findings for professional development, refining their skills in utilizing social media platforms for collaborative learning. The study's outcomes may inspire innovative instructional approaches, contributing to continuous professional growth.

Future Researchers

The study serves as a foundational resource for future researchers interested in exploring similar topics or expanding the scope to different educational contexts. It provides a basis for developing hypotheses, research questions, and methodologies in subsequent studies. Future researchers can build upon the study

by identifying any gaps in the existing literature or unexplored opportunities for research in the field of collaborative learning and social media integration within ICT-integrated classrooms.

In summary, the study's significance lies in its potential to inform decision-making at the district and school levels, guide instructional practices for teachers, and serve as a foundational resource for future research endeavors. The collaborative learning landscape in ICT-integrated classrooms can be enriched through the application of insights derived from this study.

This study laid out the terms that is conceptually and operationally defined to set up better understanding and reference when discussions of results will be taken up in the preceding chapters of the study.

The use of social media platforms in a classroom setting

Refers to the intentional integration of online social networking tools and platforms as part of the teaching and learning process. In this context, educators leverage platforms such as Facebook, Twitter, Instagram, or similar tools to enhance communication, collaboration, and educational engagement within the academic environment. The use of social media in the classroom can take various forms, including creating dedicated groups for class discussions, sharing educational resources, facilitating communication among students, and promoting collaborative projects. It provides an avenue for extending learning beyond traditional classroom boundaries, encouraging interaction among students and between students and educators in a digital space. The use of social media platforms in the classroom is often aimed at fostering a more dynamic and interactive learning experience, capitalizing on the familiarity and popularity of these platforms among students and preparing them for effective participation in a digitally connected world.

In this study, indicators of the variable includes frequency of use, types of social media platforms, purpose of use, integration with curriculum nd teacher training and support.

Collaborative Learning Environments

Refer to educational settings where Information and Communication Technology (ICT) tools and resources are employed to facilitate and enhance student collaborative learning. Collaborative learning in ICT-integrated classrooms emphasizes a student-centered approach, encouraging learners to work together, share ideas, and collectively solve problems. The integration of ICT provides opportunities for real-time collaboration, simultaneous editing of documents, and access to a wide range of digital resources, enriching the learning experience. These environments often aim to develop not only subject-specific knowledge but also essential 21st-century skills such as communication, critical thinking, and digital literacy through collaborative activities facilitated by technology.

In this study, indicators of the variable includes online participation, group communication, sharing of resources and collaborative project work.

Chapter 2 – Methodology

This chapter describes the study, including the selection of the research design, description of the respondents and sampling technique used, research instruments for collecting data, the procedure of the research, ethical consideration, and analysis of the data. These consecutive measures are considered to be compulsory so as to secure the soundness and validity of the data collection, analysis, and interpretation and the robustness and reliability of the results.

Research Design

This study employed descriptive-correlational design which is a non-experimental design as stipulated by Creswell (2014). This method investigates the association or linkage between two or more variables

without intervening or changing their values. It does not include attempts to experimentally alter these pairs of factors, but it considers only the observation and evaluation of the correlations. The descriptive-correlational research-design establishes and explains the association between the different variables. The primary objective is to explore relationships between variables, and gain an insight into which data can be used to predict or explain future occurrences. This model is frequently employed in exploratory work, where relationships among observed variables are unknown. It is useful for its ability to show connections among inputs without actual manipulation.

Descriptive-correlational research design, being a non-experimental, is employed to explore the impact of social media on enhancing collaborative learning environments in ICT-integrated classrooms. Here the researchers take a descriptive approach to inquiring about and describing the phenomenon of collaborative learning activities that have been supported by social media in ICT implementation. The research data illustrate the frequency and characteristics of social media use of teachers and students by means of a questionnaire, interviews or observation. The correlation nature of the design enables us to investigate any possible association between the degree of social media use and the observed results within the CLE. For example, it might reveal whether a greater use of social media is associated with greater student participation or more successful collaborative projects.

This quasi-experimental design is particularly appropriate to describing the current state of affairs in a studied setting, including the patterns and relationships with it without manipulating factors. Using the descriptive-correlational research design, the investigators can give a complete picture of the current picture, revealing the varied aspects of how social media can be used to support collaborative learning in ICT-mediated classrooms.

Ethical Considerations

This section on ethical considerations will focus on the essential principles safeguarding the well-being of the teacher-respondents. It involves maintaining confidentiality, obtaining informed consent, and ensuring participation is voluntary, all aimed at conducting the research with integrity and honoring everyone's rights respondents.

Social Value

As a researcher, I recognize the profound social value of this study in fostering educational equity and professional empowerment. By equipping teachers with digital literacy skills, this research contributes to bridging the digital divide, ensuring that educators in Mati North West District can effectively integrate technology into their teaching practices. This, in turn, enhances student learning experiences and prepares them for a digitally connected world. Moreover, I am committed to ensuring that the findings of this study benefit not only the respondents but also the broader educational community by informing policies and training programs that promote inclusive and sustainable digital education.

Informed Consent and Assent

As a scholar, I honor the principle of informed consent by making clear the purpose, procedures, benefits, and risks of the study to research participants in advance of their reasonable participation. I was able to supply detailed and comprehensive information during face-to-face and online briefings and ensure that teachers could make informed choices about whether or not to be involved. Furthermore, I stressed their freedom to refuse to participate in the study at any time, with no adverse effects, respecting their autonomy and decision-making control.

For individuals who may have had questions, I made certain that their questions were answered prior to gaining consent. I also appreciated the significance of assent, given that respondents in many cases need extra reassurance about data security and their place in the research. I also promoted an ethical research climate which respects the dignity and well-being of all respondents, and obtains the voluntary participation of all respondents.

Risk to Participants in the Research

I recognize as a researcher, the limitations of the teacher-respondents, including their comfort with digital literacy and their access to digital technologies. Some teachers may also struggle because they don't have much experience with online platforms for collaboration. To manage this, I made clear in my invitation that participation in the survey would be entirely voluntary and free from coercion, so that respondents could be involved at their own level of comfort.

I also learned that teachers may be anxious about their answers being judged in terms of professional competence. It reads again as though I were encouraging them, at least subconsciously, to simply share with that encouragement I did opt for concealing their identity and confidentiality and I assured them that their enlightenments would remain within the realms of research and not tied to their personal and professional status. I also offered a welcoming setting for respondents to articulate their views without fear of stigmatization, and their voices are respected and valued throughout the course of this research.

Privacy and Confidentiality

Privacy and Confidentiality As a researcher, I respect the privacy and the confidentiality of all respondents and I will ensure that their personal information and responses are guarded. I have sanitized the data to protect anonymity, and to make sure that no personally identifiable information can be recovered and attributed to participants. All data is securely held and access is restricted to key members of the research team and used only for research.

To additionally anonymize this material, I have taken measures to: (1) collect it (both via virtual and in-person interviews), in a way that upholds the participant's confidentiality, (2) where applicable, to ensure that what is said is accurately transcribed within the interview. Results from the research will be collated and released in group format so that an individual teacher's response cannot be identified. By giving primacy to privacy and confidentiality, I created a research context where participants could offer comments in an unrestrained manner, with assurance that they and their responses are well safeguarded.

Risk, Benefits and Safety

I, as a researcher, take the risks that participating in this study could imply into account, for instance issues about data privacy, time and being uncomfortable to discuss challenges towards achieving digital literacy. In order to alleviate these risks, I made sure that participation was completely voluntary and that participants could withdraw at any point with no penalty. I also had strict data privacy procedures in place to ensure that their personal information and responses were not made available to anyone else.

There are only few risks involved, however the benefits are many – especially in terms of increasing teachers' digital literacy and proficiency with online social platforms. The results will also inform ongoing professional development efforts to help educators incorporate technology into their teaching and consequently better serve their students. I wanted to maximize these systems while minimizing the potential 6 ACR 2010 Ethical responsibility that we have to protect the perspectives and well-being of all those I consult as an inductivist, through which I might 41 of the participants, the designed risks, their ethical wellbeing while engaging me.

Justice

Justice "As a researcher I am implementing the ethical principle of justice by demanding fair and equal treatment of all my participants throughout my research process. Participants were recruited using objective inclusion criteria so that all eligible teachers in Mat.i North West District had equal chance of participating. "Our apologies to no single person or group of people were unjustly excluded from the research based on whether they were included as part of previous embedded library models.

And thirdly, I am determined that this study should have a life beyond the respondents and meaning for the wider educational community. We will disseminate the research findings in manners that support professional development, policy development, and the development of digital literacies among educators. By maintaining fairness in terms of participation and how research benefits are distributed, I fulfill my obligation to ensure that the study is carried out in an ethical manner which will benefit society as a whole.

Transparency

As a researcher it is my responsibility, and a research obligation, to be transparent about the research that I want to do - its intent, methods and potential findings - with the participants! Prior to their participation, I presented comprehensive descriptions of the purpose of the study, the way data was collected, and how the results would be used. This transparency provision enabled participants to make informed choices about whether to engage and nurtured trust and credibility in the research. I supported transparency by discussing any issues or questions brought up by participants, so that they achieved maximum comprehension of their participation in the study. Any changes or modifications in the methods, procedures and were not withheld but openly declared to ensure ethical responsibility. I established a culture of trust, responsibility and respect, for the validity and ethical aspects of the study.

Qualification of the Researcher

As a researcher, I recognize the importance of possessing the necessary qualifications and expertise to conduct this study with academic rigor and ethical responsibility. My background in educational research, curriculum development, and technical assistance equips me with the knowledge and skills required to examine digital literacy training among teachers. Additionally, my experience in qualitative and quantitative research methodologies ensures that data collection, analysis, and interpretation are conducted with accuracy and credibility.

To further uphold the integrity of this study, I have undergone training in ethical research practices, ensuring that all protocols adhere to established guidelines for human subject research. I am also well-versed in the ethical considerations related to privacy, confidentiality, and informed consent, allowing me to protect the rights and welfare of respondents throughout the research process. By maintaining high professional and ethical standards, I ensure that this study contributes valuable insights to the field of education while safeguarding the dignity and well-being of all participants.

Conflict of Interest

As a researcher, I am committed to conducting this study with objectivity and integrity, ensuring that no personal, financial, or professional interests compromise the credibility of the research process. I have no affiliations or external influences that could bias the selection of respondents, data collection, analysis, or interpretation of results. My primary motivation is to contribute to advancing digital literacy among educators and to provide meaningful insights that can enhance teaching and learning practices.

To maintain transparency, I have taken proactive measures to disclose any potential conflicts and uphold ethical standards throughout the study. I remain accountable for ensuring that all findings are reported

accurately and fairly, without external pressures affecting the conclusions. By adhering to this ethical principle, I reinforce my commitment to conducting an impartial and academically sound research study that prioritizes the welfare of the respondents and the broader educational community.

Adequacy of Facilities

As a scientist, I understand that good facilities are necessary for the success of this project. I have obtained necessary resources, including digital equipment, data acquisition and storage equipment to support accurate data collection and analysis. In addition, I have used reputable Internet and physical locations to hold briefings, to interview and survey participants and enable an organized, efficient research effort.

And in the interest of ethical considerations, I have also taken facilities' availability into account for the respondents to comfortably participate without being faced with any technological and logistical challenges. An attempt was made to consider teachers with differing experiences in their digital competence with appropriate support offered throughout data collection.

Community Involvement

As an academic, I know the necessity of community participation in making this research relevant and effective. I've been working hard with educators, school administrators and other stakeholders to work together and understand how the real needs around obstacles and opportunities in digital literacy training. In this way I engage the community, contributing to grounding the research in actual experiences by teachers and in the needs of the local educational industry.

Also, I've attempted to build a culturally sensitive research climate that affirms and listens to participants. You are right in a sense: I have invited discussion via consultations, through dialogues and feedback mechanisms of course so that the community can shape the directions and the implementation of our project. By respecting the participatory dynamic of the community, I further bolster the social utility of the examine, guaranteeing that its findings bear academic relevance and practical implications in improving digital literacy and educational fairness in the sublocation.

Research Respondents

Using Slovin's formula at a margin of error of 5%, a total sample size of 115 teacher is suitable for a population of 160 teachers in Mati North West District. The object of doing so is that the sample will be a sound estimate of the entire population, albeit with moderate precision on the results of the study. With a sample size of 115 teachers, this study seeks to reflect a variety of views, contributing useful information about digital-literacy training and its effects on collaborative learning.

The choice of teachers as participants in this study was informed by certain inclusion criteria to ensure the validity and reliability of the findings. The first condition was that the respondents must be practicing in public schools in Mati North West District, which would mean that the respondents engaged in teaching and learning in the local educational context. This criterion ensures the study collects information from the educators who are working with instructional delivery, curriculum implementation, and digital learning use; their perspectives are essential to evaluate the effectiveness of the digital literacy training.

The participating teachers in the research were assumed to possess a minimum degree of echnological literacy, whether through self experience or by doing some professional development. This criterion ensures the viability of respondents participation in digital literacy and online collaboration discourse by virtue of their experience representing the face of technology implementation in public schools. Furthermore, teachers were recruited from multiple grades and subjects to have a more detailed sense of whether digital literacy training impacts teaching efficacy and student reaction in many domains.

Finally, teachers with digital tools, obtained at school or own, were given preference to let them join in on collaborative online platforms. As one of the aims of the research is to investigate how digital literacy training increases the ability of teachers to participate in virtual learning spaces, the selection of participants who could utilise these skills was necessary.

Research Instrument

The researcher used an instrument based on modified one from review of literature and related studies in this study. A specific effort was made to collect and analyze literature, which helped to codify the content and to develop the instrument and related components. This meticulous step was taken in order to exaplain the items of questions and to minimize any risk to the validity of the study.

Items were developed based on the reviewed literature, as the authors claimed. The questionnaire comprised of two parts; aimed at investigating the levels of using social media of the social media in the classroom regarding frequency of using type of social media, the purpose of Using, integrating with the curriculum, and teachers Training support.

Similarly, the second section of the questionnaire determined the level of collaborative learning environments with respect to online participation, group networking, sharing of resources and collaborative project based work.

Also, the statements of the questionnaire have been tested for a test-retest or validity and reliability by the cronbach Alpha in a. 05 confidence level. An alpha Cronbach of 0.876 was obtained.

The scale in the questionnaire was constructed as 5-point Likert scale to measure the intensity of using social media platforms in the classroom in terms of frequency of using, types of social media, purposes of using, merging with curriculum and the teacher supporting. Scaling, rating and interpretation are given as follows:

Scale	Descriptive Rating	Interpretation
4.20 – 5.00	Very Extensive	The use of social media platforms in the classroom setting is always manifested
3.40 – 4.19	Extensive	The use of social media platforms in the classroom setting is oftentimes manifested
2.60 – 3.39	Moderately Extensive	The use of social media platforms in the classroom setting is sometimes manifested
1.80 – 2.59	Less Extensive	The use of social media platforms in the classroom setting is rarely manifested
1.00 – 1.79	Not Extensive	The use of social media platforms in the classroom setting is not manifested

Meanwhile, to determine the extent of collaborative learning environments in ICT-integrated classrooms in terms of online participation, group communication, sharing of resources, and collaborative project work, a 5-point Likert scale was used in this study, as presented below;

Scale	Descriptive Rating	Interpretation
4.20 – 5.00	Very Extensive	The collaborative learning environments in ICT-integrated classrooms is always manifested
3.40 – 4.19	Extensive	The collaborative learning environments in ICT-integrated classrooms is oftentimes manifested
2.60 – 3.39	Moderately Extensive	The collaborative learning environments in ICT-integrated classrooms is sometimes manifested
1.80 – 2.59	Less Extensive	The collaborative learning environments in ICT-integrated classrooms is rarely manifested
1.00 – 1.79	Not Extensive	The collaborative learning environments in ICT-integrated classrooms is not manifested

Data Gathering Procedure

In the research project's data-gathering procedure, several crucial steps are involved, including the ethical acquisition of permission to conduct the study. This step is essential for upholding fundamental principles such as respect, transparency, and responsible research conduct. The guidelines for this process adhere to the policies of Rizal Memorial Colleges. As part of the formal request, researchers delineate their intentions regarding data collection, analysis, and dissemination, aligning these with the overarching research goals. Anticipated concerns or questions from recipients are proactively addressed in this communication, providing assurances on ethical safeguards, confidentiality measures, and the potential benefits of the study. The formal permission request explicitly seeks authorization to proceed, emphasizing the pivotal role of their support in ensuring the research's success.

Permission to conduct the study. In the last week of April 2024, prior to data collection, the researcher initiated the process of obtaining necessary permissions from the relevant authorities, including the research adviser, the Dean of Rizal Memorial Colleges, and the top management of DepEd Mati City Division through the appropriate channels.

This involved submitting a comprehensive research proposal outlining study design, procedures, and potential risks and benefits. The researcher provided detailed information about the study's purpose, goals, and methods for data collection, analysis, and reporting.

Furthermore, in May 2024, the researcher took steps to ensure that all participants were fully informed about the study, their rights, and the nature of their involvement. Informed consent was obtained from each participant before they participated in the study. The researcher committed to data accuracy and completeness for distributing and retrieving questionnaires during the first week of April 2024. These processes were conducted with a standardized and systematic approach, ensuring reliability in the collection of responses from participants.

Data Analysis

Mean scores and standard deviation

Were used to address statement problems posed in statement problem number one (1) regarding the extent of social media platforms' use in the classroom setting and statement problem number two (2) regarding the extent of collaborative learning environments in Mati North West District, Mati City Schools Division.

Pearson Product Moment Correlation Coefficient* or *Pearson-r

Was used to determine its strength/direction significant relationship between the use of social media platforms in the classroom setting and collaborative learning environments.

Simple Linear Regression

Analysis was used to address (Koole et al. (2007) statement problem number 4 on the indicators of the use of social media platforms in the classroom setting that significantly influence collaborative learning environments (Pallant, 2000) and (Gujarati, 2000).

All data processing and analysis were performed using Jeffrey's Statistics Amazing Program (JASP) version 0.12.20. When results were yielded, discussions and interpretations followed.

Chapter 3 – Results and Discussions

This chapter presents the results and interpretations of the study titled "Influence of Social Media on a Collaborative Learning Environment in Mati North District." It highlights the key findings based on the research questions, focusing on the extent of social media use and its impact on collaborative learning.

The discussion connects the results with relevant literature and theoretical frameworks, offering insights into how social media supports or challenges collaborative learning.

Extent of the Use of Social Media Platforms in the Classroom Setting

The integration of social media platforms in classroom settings has increasingly been recognized as a tool for enhancing student engagement, collaboration, and communication. Platforms such as Facebook, Messenger, Google Classroom, and even TikTok have been adapted by educators to support interactive learning, facilitate group work, and promote knowledge sharing beyond traditional instructional time. According to Al-Khasawneh and Hammad (2023), social media encourages active participation and fosters a sense of community among learners, which is essential in collaborative learning environments. Similarly, Mohamad and Mohd-Rahim (2022) found that using social media tools improves students' digital literacy and provides accessible channels for real-time feedback and peer interaction. Despite these advantages, challenges such as distraction, misinformation, and data privacy remain critical. Nevertheless, with proper guidance and clear objectives, the use of social media in the classroom continues to evolve as a valuable supplement to formal instruction.

Frequency of Use

The frequency of social media use in educational settings significantly influences student interaction,

engagement, and collaborative learning outcomes. Regular and purposeful use of platforms such as Facebook, WhatsApp, and Google Classroom enhances continuity in communication and facilitates timely exchange of ideas among students and teachers. According to Alghamdi (2022), students who frequently engage with educational content on social media platforms demonstrate higher levels of academic collaboration and digital participation. Likewise, Kurniawan and Rahmawati (2023) emphasized that consistent use of social media tools supports sustained peer-to-peer learning and builds stronger virtual learning communities. However, excessive or unregulated use may lead to reduced academic focus and increased exposure to non-educational distractions, necessitating structured guidelines for classroom application.

Table 1 presents the descriptive statistics on the extent of use of social media platforms in the classroom setting, explicitly focusing on the frequency of use. The overall mean score of 3.96 indicates an *extensive* utilization of social media for student collaborative learning activities. Notably, the highest mean score (4.11) was recorded in the item assessing the sharing of digital resources such as links, documents, and other relevant materials, suggesting that students frequently use social media as a repository and distribution hub for collaborative learning content. Similarly, the item regarding peer feedback received a high mean score of 4.09, indicating that students consistently engage in evaluative and constructive interactions with their peers. Moreover, activities such as collaborative project work (mean = 3.95), active participation in online discussions (mean = 3.87), and the exchange of multimedia messages and in-depth conversations (mean = 3.79) also fell within the *extensive* range, further confirming that social media platforms are effectively integrated into classroom-based learning tasks.

Table 1. The Extent of Use of Social Media Platforms in the Classroom Setting in terms of Frequency of Use

No	Frequency of Use	n	mean	Descriptive Interpretation
1	Measure the extent to which students actively engage in online discussions, forums, or collaborative platforms. This could include the frequency and quality of contributions	122	3.87	Extensive
2	Assess the level of communication and interaction among group members. This might involve tracking the number of messages exchanged, the use of multimedia, and the depth of discussions	122	3.7	Extensive
3	Examine whether students share digital resources, links, documents, or other materials relevant to the collaborative learning tasks. This can indicate the effectiveness of collaborative resource-sharing	122	4.11	Extensive
4	Evaluate the degree to which students collaborate on projects or assignments using ICT tools. This could include tracking joint document creation, collaborative presentations, or shared project files	122	3.95	Extensive
5	Measure the occurrence and quality of peer feedback within the collaborative learning	122	4.09	

environment. This could involve students providing constructive feedback on each other's work			Extensive
Overall Mean	**122**	**3.96**	**Extensive**

Boholano, Balila, and Nacario (2022) emphasized that Filipino students have adopted social media platforms for communication and meaningful academic collaboration, particularly during blended and remote learning modalities. Similarly, the study of Ariffin et al. (2023) found that high-frequency engagement in digital learning environments positively correlates with enhanced participation and collaborative behavior. Moreover, research by Castro and Tumibay (2021) revealed that the regular use of platforms such as Facebook, Messenger, and Google Classroom contributed significantly to collaborative productivity and increased student autonomy. These studies affirm that frequent and purposeful social media use enhances the collaborative learning environment in basic education settings.

Type of Social Media Platforms

Social media platforms used in educational settings vary in form and function, each offering unique features that support collaborative learning. Commonly used platforms include **Facebook** and **Messenger** for group discussions and updates, **Google Classroom** for assignment distribution and feedback, **YouTube** for video-based instruction, and **WhatsApp** for real-time communication. These tools allow learners and educators to interact beyond traditional classroom boundaries. As noted by Dogra and Gupta (2022), the selection of platform often depends on accessibility, user familiarity, and the pedagogical goals of the teacher. Furthermore, Raut and Patil (2021) emphasized that integrating diverse platforms enhances student engagement by catering to different learning preferences, such as text, video, and multimedia content delivery. The diversity of platforms enables more flexible, accessible, and engaging educational experiences.

Table 2 presents the descriptive results on the extent of use of different social media platforms in classroom settings. With an overall mean of **4.10**, the data indicate an extensive use of various platforms to support instructional and collaborative activities. Among the specific indicators, the highest mean score (4.18) pertains to the increasing frequency of social media use over the academic year, suggesting a growing integration and comfort among both teachers and students. Teachers and students are also observed to actively engage in discussions, share learning resources, and collaborate regularly, as shown by a high mean of 4.13. Moreover, data reveal variability in platform use (mean = 4.11), indicating that while some educators integrate social media consistently, others use them intermittently. The analysis further reveals distinct usage patterns across platforms, such as the preference for Facebook in collaborative activities and Twitter for quick updates (mean = 4.10). Lastly, a strong link is observed between social media engagement and increased student participation (mean = 3.96), reinforcing the pedagogical value of these tools in enhancing classroom interactivity.

Manzoor et al. (2023) found that the increased use of social media platforms such as Facebook, WhatsApp, and Google Classroom in educational settings positively influenced collaborative behaviors and academic interaction. In the Philippine context, Sevilla and Calimag (2022) reported that both teachers and students progressively adapted to digital platforms during and after the COVID-19 pandemic, leading to more sustained use of social media tools in blended and face-to-face instruction.

Table 2. The Extent of Use of Social Media Platforms in the Classroom Setting in terms of the Type of Social Media Platforms

No	Type of Social Media Platforms	n	mean	Descriptive Interpretation
1	Teachers and students exhibit a high frequency of engagement with social media platforms in the classroom, actively participating in discussions, sharing resources, and collaborating on a regular basis	122	4.13	Extensive
2	The study reveals variable patterns of social media use in the classroom, with some teachers integrating platforms consistently into their instructional practices, while others show sporadic or limited engagement	122	4.11	Extensive
3	Over the course of the academic year, there is a noticeable gradual increase in the frequency of social media interaction among both educators and students, indicating a growing comfort and integration of these tools into the learning environment	122	4.18	Extensive
4	Analysis demonstrates a differential frequency of use across various social media platforms, with platforms like Twitter being utilized more frequently for brief updates, while platforms like Facebook are employed for more in-depth discussions and collaborative activities	122	4.10	Extensive
5	A positive correlation is identified between the frequency of social media use in the classroom and increased student engagement, suggesting that higher levels of platform interaction contribute to a more participatory and collaborative learning environment	122	3.96	Extensive
	Overall Mean	**122**	**4.10**	**Extensive**

Moreover, research by Alghamdi (2022) confirmed that diverse platform functionalities—ranging from instant messaging to resource sharing—cater to various learning tasks, thereby increasing engagement and participation. These studies affirm the current findings that various social media platforms are extensively utilized and integrated into instructional delivery to enrich the learning environment.

Purpose of Use

Using social media platforms in educational settings enhances communication, collaboration, and engagement among learners and educators. These platforms serve multiple instructional functions, facilitating group discussions, sharing learning materials, providing feedback, and supporting project-

based tasks. As Cabero-Almenara and Llorente-Cejudo (2022) highlight, social media encourages participatory learning and offers learners opportunities to engage with content and peers beyond traditional classroom boundaries. Moreover, Aydin (2021) emphasized that educators leverage these platforms to create learner-centered environments where students can contribute ideas, ask questions, and receive timely support. Thus, the purposeful use of social media in classrooms extends beyond social interaction and plays a vital role in shaping a collaborative and dynamic learning environment.

Table 3 illustrates the extent to which social media platforms are utilized in classroom settings based on their intended purposes. The overall mean score of **3.81** reflects an *extensive* use, indicating that teachers and students purposefully integrate these platforms to enhance instructional processes. The highest mean (3.92) highlights social media's primary purpose to promote **collaborative learning**, where students are given digital spaces to engage in discussions, co-create knowledge, and share ideas. Additionally, the use of social media for **resource sharing** (mean = 3.84) and **real-time communication** (mean = 3.81) suggests that educators actively employ these tools to extend learning beyond traditional classroom limits. The purposeful alignment of these platforms with **curricular goals** (mean = 3.67) and their role in stimulating **critical thinking and reflection** (mean = 3.80) further indicate that social media is not merely used for convenience but as a strategic component of modern pedagogy.

Table 3. The Extent of Use of Social Media Platforms in the Classroom Setting in terms of the Purpose of Use

No	Purpose of Use	n	mean	Descriptive Interpretation
1	The primary purpose of integrating social media platforms in the classroom is to enhance collaborative learning experiences, providing students with a digital space to share ideas, engage in discussions, and collectively create knowledge	122	3.92	Extensive
2	Teachers leverage social media platforms as tools for the purpose of facilitating resource sharing, enabling the seamless exchange of educational materials, links, and multimedia content among both educators and students	122	3.84	Extensive
3	Social media platforms are utilized in the classroom to promote real-time communication, fostering instant and interactive discussions that extend beyond traditional classroom boundaries, thus enhancing the overall learning experience	122	3.81	Extensive
4	The purposeful use of social media platforms aligns closely with curriculum objectives, ensuring that the digital tools complement and support formal educational content, thereby enriching the learning process and achieving educational goals	122	3.67	Extensive

5	One of the key purposes of incorporating social media in the classroom is to stimulate critical thinking and reflection among students, encouraging them to express thoughts, analyze perspectives, and engage in meaningful discourse through online platforms	122	3.80	Extensive
	Overall Mean	**122**	**3.81**	**Extensive**

García-Peñalvo et al. (2022) emphasized that when purposefully integrated into learning environments, social media fosters active learning and critical engagement. Similarly, Lee and Martin (2023) found that purposeful use of platforms such as Facebook Groups and Google Classroom enabled structured collaboration aligned with curriculum standards, thus enhancing academic outcomes. In the Philippine context, Domingo and Medrano (2021) reported that teachers used social media extensively for both communication and instructional alignment during blended learning, showing how digital tools support curriculum delivery and promote student-centered learning. These recent studies affirm the present findings, underscoring that the purposeful use of social media in classrooms significantly enhances student engagement and supports pedagogical goals.

Integration With Curriculum

Integration of social media platforms with the curriculum refers to the deliberate alignment of digital tools with learning objectives and instructional content. Rather than using social media for informal communication alone, educators incorporate these platforms to enhance subject matter delivery, facilitate collaborative activities, and support competency development. According to Alabdulkareem (2021), effective integration involves designing learning experiences where social media complements traditional instruction, thereby enriching students' understanding and participation. Moreover, Barrot (2023) emphasized that aligning social media use with curriculum goals enables educators to foster learner engagement, critical thinking, and digital literacy while ensuring that learning remains outcome-based and pedagogically sound. This integration transforms social media into a structured, meaningful formal education component.

Table 4 presents the results on the extent to which social media platforms are integrated into classroom instruction in alignment with curriculum goals. The overall mean score of 4.02 reflects an extensive level of integration, indicating that teachers in the study purposefully employ social media to support curriculum-based teaching and learning. The highest rating (mean = 4.05) underscores that educators deliberately align digital tools with specific learning objectives, reinforcing key academic concepts through social media use. Teachers also integrate multimedia and real-world content to supplement lessons (mean = 4.02), demonstrating a strategic effort to enhance subject matter relevance and learner engagement. Furthermore, social media platforms are embedded within instructional design to support collaborative and project-based learning (mean = 3.97), differentiated instruction (mean = 4.02), and assessment processes (mean = 4.01), showing their comprehensive utility in modern pedagogical practice. Barrot (2023) emphasized that effective social media integration enhances content delivery and strengthens student outcomes when embedded within curriculum-aligned instructional strategies. Similarly, a study by Al-Ali (2022) revealed that teachers who incorporate social media into formative and summative assessments promote deeper engagement and improved curriculum comprehension. In a

Philippine context, de Guzman and Lintao (2021) noted that social media platforms like Google Classroom and Facebook are extensively used not just as communication tools but as platforms for delivering content aligned with K to 12 curriculum competencies. These empirical studies affirm that the thoughtful integration of social media into curriculum delivery enhances instructional effectiveness and supports differentiated and inclusive learning.

Table 4. The Extent of Use of Social Media Platforms in the Classroom Setting In terms of the Integration with the Curriculum

No	Integration with Curriculum	n	mean	Descriptive Interpretation
1	The integration of social media platforms in the classroom demonstrates a deliberate alignment with learning objectives, ensuring that the digital tools complement and reinforce key concepts outlined in the curriculum	122	4.05	Extensive
2	Teachers purposefully integrate social media platforms to enrich lesson content, providing supplementary materials, multimedia resources, and real-world examples that enhance the curriculum and offer diverse learning experiences	122	4.02	Extensive
3	Social media platforms are seamlessly integrated into the instructional design, serving as interactive components that facilitate collaborative activities, discussions, and projects directly related to the curriculum	122	3.97	Extensive
4	The use of social media in the classroom is strategically incorporated to support differentiated instruction, allowing teachers to tailor content delivery to diverse learning styles and adapt to the individual needs of students outlined in the curriculum	122	4.02	Extensive
5	Teachers leverage social media platforms not only for content delivery but also for assessment purposes, integrating digital tools into formative and summative assessments to gauge student understanding and ensure curriculum objectives are met effectively	122	4.01	Extensive
	Overall Mean	**122**	**4.02**	**Extensive**

Teacher Training and Support

Teacher training and support are critical components in the effective integration of social media platforms into classroom instruction. Educators require not only technical skills but also pedagogical competencies to harness digital tools for collaborative, student-centered learning. Trust and Whalen (2021) emphasize that sustained professional development enables teachers to design meaningful online learning experiences, manage digital interactions, and align social media use with curriculum objectives. Moreover, continuous support through mentoring, resource sharing, and institutional policies enhances teachers' confidence and willingness to innovate. According to Bautista et al. (2023), when schools provide structured training and responsive technical assistance, teachers are more likely to adopt social media platforms effectively, ensuring both instructional relevance and learner engagement in the digital age.

Table 5 presents the respondents' assessment of the extent of teacher training and support in integrating social media platforms within the classroom context. With an **overall mean of 3.87**, the findings reflect extensive training and institutional backing among teachers. The highest-rated item (mean = 4.00) underscores the significance of **institutional support structures**, including technical assistance and resource availability, in maintaining teachers' confidence and motivation. Continuous **professional development initiatives** (mean = 3.86) have also played a crucial role in building teachers' competence and effectiveness in integrating social media into instruction. The results show that **tailored workshops** (mean = 3.82), **digital literacy training** (mean = 3.84), and **mentorship programs for novice educators** (mean = 3.82) all contribute meaningfully to enhancing teachers' capacity to use digital platforms safely and pedagogically.These findings are supported by recent studies conducted between 2021 and 2024. For instance, Bautista, Tan, and Wong (2023) emphasized that sustained and context-specific digital training programs significantly improve teachers' ability to leverage online collaborative and differentiated instruction platforms. Trust and Whalen (2021) likewise found that targeted professional learning, especially during the COVID-19 pandemic, empowered educators to explore digital tools with greater confidence and creativity.

Table 5. The Extent of Use of Social Media Platforms in the Classroom Setting In terms of the Teacher Training and Support

No	Teacher Training and Support	n	mean	Descriptive Interpretation
1	Teachers exhibit increased confidence and effectiveness in integrating social media platforms into the classroom setting through participation in ongoing professional development initiatives, indicating the importance of continuous training for successful implementation	122	3.86	Extensive
2	Tailored workshops addressing specific features of social media platforms are found to significantly enhance teacher competence, ensuring a nuanced understanding of functionalities and optimizing the potential of these tools for educational purposes	122	3.82	Extensive
3	Comprehensive training programs on digital literacy and responsible use of social media contribute to teachers' proficiency in guiding students to navigate online spaces	122	3.84	Extensive

	safely, fostering a secure and conducive learning environment			
4	Novice educators benefit significantly from mentorship programs that provide guidance on the effective integration of social media platforms, highlighting the value of peer support and experienced educators aiding in the learning curve	122	3.82	Extensive
5	The presence of robust institutional support structures, including dedicated support staff and resources, is crucial for sustaining teachers' confidence and motivation in utilizing social media platforms, emphasizing the importance of a supportive ecosystem	122	4.00	Extensive
	Overall Mean	**122**	**3.87**	**Extensive**

In the Philippine context, Ballado-Tan (2022) noted that institutional mentorship and technical support were vital in helping teachers integrate social media and digital platforms effectively, particularly in low-resource schools. These studies validate the present findings, reinforcing that well-structured training and support systems are indispensable in optimizing the use of social media in educational settings.

Summary of the Extent of Use of Social Media Platforms in the Classroom Setting

Table 6 presents the consolidated results on the extent of social media platform use in the classroom setting based on five key dimensions: **frequency of use, type of platform, purpose of use, integration with curriculum, and teacher training and support**. With an **overall mean of 3.95**, the data indicate that the use of social media platforms in the classroom is extensive across all domains assessed.

Among the five components, the **type of social media platforms** received the highest mean score of **4.10**, indicating that educators and students are highly engaged in using various platforms, such as Facebook, Google Classroom, and Messenger, based on the features and functionalities that best support their collaborative learning needs. **Integration with the curriculum** followed with a mean of **4.02**, highlighting that social media tools are not merely supplemental but are being purposefully aligned with learning objectives and instructional goals. The **frequency of use** also yielded a high score (**3.96**), reflecting regular and consistent application of social media in learning tasks. Meanwhile, **teacher training and support** (mean = 3.87) and **purpose of use** (mean = 3.81) underscore the importance of professional development, institutional backing, and goal-oriented utilization to ensure meaningful and secure engagement with these platforms.

Table 6. The Extent of Use of Social Media Platforms in the Classroom Setting

No	Use of Social Media Platforms in the Classroom Setting	n	mean	Descriptive Interpretation
1	Frequency of Use	122	3.96	Extensive
2	Type of Social Media Platforms	122	4.10	

				Extensive
3	Purpose of Use	122	3.81	
				Extensive
4	Integration with Curriculum	122	4.02	
				Extensive
5	Teacher Training and Support	122	3.87	
				Extensive
	Overall Mean	**122**	**3.95**	**Extensive**

The collective results affirm that social media is an integral component of the instructional process in the studied context. These findings are supported by current literature. For instance, Alabdulkareem (2021) and Barrot (2023) observed that the effectiveness of social media in education is amplified when platforms are chosen purposefully, integrated with curriculum goals, and supported by adequate teacher training. Moreover, García-Peñalvo et al. (2022) emphasized the role of institutional support and pedagogical clarity in sustaining meaningful technology use. As reflected in the data, the Mati North District has demonstrated an educational environment where social media use is both widespread and systematically embedded, suggesting a promising direction for digital integration in teaching and learning.

Extent of Collaborative Learning Environments

Collaborative learning environments refer to educational settings where learners actively engage with peers and instructors to construct knowledge through shared activities, dialogue, and problem-solving tasks. These environments emphasize interaction, mutual support, and co-responsibility in achieving learning goals. As defined by Laal and Ghodsi (2021), collaborative learning fosters deeper understanding, critical thinking, and communication skills by encouraging students to learn from one another. In the digital age, collaborative environments increasingly incorporate online tools and platforms—such as social media, cloud-based documents, and virtual discussion boards—that expand opportunities for teamwork beyond the traditional classroom. According to Zheng and Li (2023), technology-enhanced collaborative learning promotes inclusivity, sustained engagement, and real-time knowledge sharing, making it a powerful approach in 21st-century education.

Online Participation

Online participation refers to the active engagement of learners in digital platforms through which they communicate, collaborate, and contribute to learning tasks in both synchronous and asynchronous formats. It encompasses various forms of interaction, including text-based discussions, multimedia sharing, and real-time feedback. According to Barrot (2021), effective online participation promotes student agency, deepens peer-to-peer learning, and fosters a collaborative learning environment. It is a critical component of technology-enhanced education, enabling learners to construct knowledge collectively, regardless of time or physical boundaries. As highlighted by Zheng and Li (2023), the quality and consistency of online participation significantly influence the success of collaborative and learner-centered pedagogies in virtual and blended learning environments.

Table 7 presents the results on the extent of collaborative learning environments as influenced by **online participation**. With an **overall mean of 4.05**, the findings reflect *extensive* engagement among students in online collaborative activities. The highest mean score (**4.10**) corresponds to students' **active and meaningful engagement** in online discussions, which signals a strong correlation between using ICT tools and enhancing collaborative learning. The data further show that online participation occurs through **varied modes**, including text-based exchanges, multimedia inputs, and real-time engagements (mean = 4.06), enriching the diversity and inclusivity of peer interactions. Moreover, timely feedback and responsive communication (mean = 4.00) are essential components of the interactive online learning space. Using **synchronous and asynchronous platforms** (mean = 4.04) adds flexibility to student collaboration, while **problem-solving and critical thinking** through digital means (mean = 4.05) highlight the pedagogical value of integrating ICT tools into collaborative learning structures.

These findings align with several studies conducted between 2021 and 2024. For example, Zheng and Li (2023) confirmed that diverse and sustained online participation significantly enhances the quality of collaborative learning by allowing students to co-construct knowledge through multimodal and timely interactions.

Table 7. The Extent of Collaborative Learning Environments in terms of Online Participation

No	Online Participation	n	mean	Descriptive Interpretation
1	Students demonstrate active engagement in online discussions, with consistent and meaningful contributions, reflecting a positive correlation between the use of ICT tools and increased participation in collaborative learning activities	122	4.10	Extensive
2	The collaborative learning environment encourages varied modes of online participation, including text-based interactions, multimedia contributions, and real-time engagement, fostering a rich and diverse exchange of ideas among students	122	4.06	Extensive
3	An ICT-integrated collaborative learning environment facilitates timely responses and feedback among students, creating an interactive space where participants can provide input, seek clarification, and offer constructive feedback to peers	122	4.00	Extensive
4	Students exhibit both synchronous and asynchronous modes of collaboration in the online space, utilizing ICT tools to engage in real-time discussions as well as contribute thoughtfully to collaborative projects over extended periods, enhancing the flexibility of collaborative learning	122	4.04	Extensive

5	The integration of ICT tools promotes collaborative problem-solving as students actively use online platforms to collectively tackle challenges, share solutions, and engage in critical thinking, illustrating the role of technology in fostering collaborative learning environments	122	4.05	Extensive
	Overall Mean	**122**	**4.05**	**Extensive**

Likewise, the work of Fidan and Debele (2022) highlighted the importance of asynchronous and synchronous digital engagement in promoting autonomy, deeper reflection, and interactive learning. In the Philippine context, Ramirez and Tolentino (2021) found that students in blended and online classrooms demonstrated increased collaboration and engagement when provided with structured opportunities to participate using familiar social media and ICT platforms. Collectively, these studies reinforce the interpretation that robust online participation is a defining characteristic of effective and inclusive collaborative learning environments.

Group Communication

Group communication refers to the interactive exchange of information, ideas, and feedback among members within a learning group, aiming to achieve shared academic goals. It involves collaboration through discussions, task coordination, and decision-making processes that enhance mutual understanding and collective problem-solving. Group communication fosters teamwork, critical thinking, and active participation in educational settings. As noted by Johnson and Johnson (2021), effective group communication in the classroom cultivates a supportive learning environment where students build interpersonal skills and engage in meaningful dialogue. With the rise of digital tools, platforms such as social media and learning management systems further facilitate group communication by enabling real-time and asynchronous collaboration, as supported by Kwon and Woo (2022).

Table 8 assesses group communication within collaborative learning environments, particularly in ICT-integrated classrooms. The **overall mean score of 4.09** indicates extensive group communication among students. The highest-rated item (mean = **4.14**) reflects the crucial role of group communication in **task coordination and role distribution**, allowing students to manage collaborative projects efficiently. This is followed by **real-time collaboration tools** (mean = **4.11**), which enhance communication by enabling simultaneous contributions to shared documents and presentations, thereby strengthening collective ownership of learning outputs.

Table 8. The Extent of Collaborative Learning Environments in terms of Group Communication

No	Group Communication	n	mean	Descriptive Interpretation
1	Group communication within ICT-integrated classrooms is dynamic and interactive, fostering engaging discussions among students as they utilize digital tools to exchange ideas, share perspectives, and collaborate on learning tasks	122	4.01	Extensive

2	ICT tools facilitate multimodal group communication channels, allowing students to communicate through various mediums such as text, audio, and video, promoting a diverse and inclusive collaborative learning experience	122	4.08	Extensive
3	In ICT-integrated collaborative learning environments, group communication plays a pivotal role in the effective coordination of tasks, enabling students to organize and distribute responsibilities seamlessly for collaborative projects	122	4.14	Extensive
4	The integration of ICT supports real-time collaboration and editing, enhancing group communication by allowing students to simultaneously contribute to documents, presentations, and other collaborative artifacts, fostering a sense of shared ownership	122	4.11	Extensive
5	Group communication in ICT-enhanced classrooms facilitates the exchange of constructive peer feedback, creating a supportive environment where students can review and improve each other's work collaboratively, contributing to a continuous learning process	122	4.05	Extensive
	Overall Mean	**122**	**4.09**	**Extensive**

The presence of **multimodal communication channels**, including text, audio, and video, was also noted (mean = **4.08**), supporting diverse learning styles and inclusive participation. Additionally, **constructive peer feedback** (mean = **4.05**) and **interactive discussions** (mean = **4.01**) demonstrate that digital tools foster a responsive and engaging group learning experience.

These findings are consistent with current literature from 2021 to 2024. According to Kwon and Woo (2022), the use of ICT tools enhances group communication by offering diverse formats and real-time collaboration features that support both formal and informal interactions. Likewise, García-San Pedro et al. (2023) emphasized that structured digital collaboration facilitates more transparent communication, shared responsibilities, and effective feedback loops, essential in building a productive learning environment. Villanueva and Ramos (2021) found that students participating in group activities through online platforms like Google Docs and Microsoft Teams reported stronger peer interaction and communication efficiency. These studies confirm that group communication, when supported by digital technologies, significantly contributes to the development of collaborative learning environments.

Sharing of Resources

Sharing of resources in a collaborative learning environment refers to the exchange of educational materials, such as documents, links, multimedia content, and tools, among students and teachers to support academic tasks and group activities. This practice fosters a culture of openness, cooperation, and mutual support, enabling learners to access diverse perspectives and deepen their understanding of subject matter. As Alghamdi (2022) noted, digital platforms enhance resource sharing by making information more

accessible and facilitating real-time distribution among peers. Furthermore, Barrot (2021) emphasized that resource sharing through social media and collaborative tools strengthens student engagement and promotes the co-construction of knowledge, essential features of learner-centered education in the digital age.

Table 9 presents the assessment results on the extent of sharing of resources in collaborative learning environments supported by ICT tools. The **overall mean of 3.99** indicates *extensive* resource sharing among students in ICT-integrated classrooms.

The highest mean score (**4.09**) corresponds to **interactive resource annotations**, where students share materials and provide comments and contextual insights, deepening collective understanding.

Additionally, creating **peer-generated learning materials** such as study guides and multimedia presentations (mean = **4.04**) highlights student agency and ownership in the learning process. Students also actively **curate content** aligned with learning goals (mean = **3.99**), contributing to a shared knowledge base. ICT tools function effectively as **centralized repositories** for collaborative outputs (mean = **3.93**), and the overall process of **resource exchange** (mean = **3.91**) fosters cooperation, access to diverse perspectives, and enriched academic discourse.

According to Alghamdi (2022), digital platforms facilitate collaborative knowledge-building by enabling learners to easily share, annotate, and co-develop academic content. Similarly, Barrot and Aglugub (2021) found that the integration of resource-sharing practices in online and blended learning significantly enhances students' digital literacy and collaborative engagement.

Table 9. The Extent of Collaborative Learning Environments in terms of Sharing of Resources

No	Sharing of Resources	n	mean	Descriptive Interpretation
1	Collaborative learning environments in ICT-integrated classrooms promote a seamless digital resource exchange, where students share educational materials, links, and multimedia resources to enhance collective understanding and learning	122	3.91	Extensive
2	ICT tools serve as a centralized repository for collaborative projects, facilitating the sharing of resources such as research articles, reference materials, and relevant online content, contributing to a well-rounded and comprehensive learning experience	122	3.93	Extensive
3	Students actively engage in the collaborative curation of content using ICT platforms, curating and sharing educational resources that align with the learning objectives, thereby creating a collaborative knowledge base for the entire learning community	122	3.99	Extensive
4	ICT-integrated collaborative learning environments support interactive resource annotations, enabling students to provide insights, comments, and additional context to shared resources, fostering a deeper understanding through collaborative exploration	122	4.09	Extensive

5	The sharing of resources in ICT-enhanced classrooms extends to the creation of peer-generated learning materials, where students collaboratively develop and share digital content, such as study guides or multimedia presentations, to support collective learning goals	122	4.04	Extensive
	Overall Mean	**122**	**3.99**	**Extensive**

In a Southeast Asian context, Tayao and Reyes (2023) noted that Filipino students in ICT-supported classrooms demonstrated increased collaboration and academic performance when resource sharing was embedded in structured group tasks. These studies affirm that sharing resources is vital in collaborative learning environments, mainly when supported by well-designed ICT frameworks.

Collaborative Project Work

Collaborative project work involves students working together in groups to complete tasks, solve problems, or create products that reflect shared learning objectives. This approach promotes active engagement, peer-to-peer interaction, and the development of higher-order thinking skills such as critical thinking, communication, and teamwork. In ICT-integrated settings, collaborative project work is enhanced through digital tools that support real-time co-authoring, multimedia production, and virtual coordination. As highlighted by Vygotsky's social constructivist theory and supported by recent studies like those of Zheng and Li (2023), collaborative project work fosters deeper learning by situating knowledge construction within meaningful social interactions. Furthermore, García-San Pedro et al. (2022) emphasize that digital collaboration platforms streamline project organization and empower students to take ownership of their learning through collective accountability and creativity.

Table 10 presents the results on the extent of collaborative learning environments in relation to **collaborative project work** in ICT-integrated classrooms. The **overall mean score of 4.07** indicates *extensive* engagement among students in digitally-supported project-based learning. Among the indicators, the highest mean (**4.10**) reflects students' active involvement in **collaborative problem-solving**, utilizing digital platforms to address complex tasks through teamwork and critical thinking. Real-time collaboration on shared documents and projects (mean = **4.09**) and the integration of multimedia elements (mean = **4.09**) further illustrate how ICT tools foster interactive, engaging, and multimodal project outputs. Additionally, digital platforms facilitate **coordinated planning** (mean = **4.00**) and promote **task interdependence** (mean = **4.04**), where students take responsibility for specific components, strengthening group cohesion and shared ownership of the final product.

Table 10. The Extent of Collaborative Learning Environments in terms of Collaborative Project Work

No	Collaborative Project Work	n	mean	Descriptive Interpretation
1	Collaborative learning environments in ICT-integrated classrooms facilitate coordinated project planning, allowing students to use digital tools for brainstorming, task assignment, and project timelines, enhancing the efficiency of collaborative efforts	122	4.00	Extensive

2	Students engage in real-time collaboration on shared documents and projects using ICT tools, enabling simultaneous contributions, edits, and feedback, fostering a dynamic and interactive collaborative project work environment	122	4.09	Extensive
3	ICT integration supports the incorporation of multimedia elements into collaborative projects, allowing students to enhance their project artefacts with images, videos, and interactive content, thereby creating richer and more engaging final outcomes	122	4.09	Extensive
4	Collaborative project work in ICT-integrated classrooms involves students in collaborative problem-solving activities using digital platforms, encouraging teamwork and critical thinking in addressing complex challenges	122	4.10	Extensive
5	ICT-supported collaborative learning environments promote task interdependence, where students share responsibilities and contribute to different aspects of a project, fostering a sense of collective ownership and achievement	122	4.04	Extensive
	Overall Mean	**122**	**4.07**	**Extensive**

These results align with recent empirical studies conducted between 2021 and 2024. García-San Pedro et al. (2022) emphasized that ICT tools enhance collaborative project work by supporting planning, execution, and presentation of outputs in dynamic formats. Similarly, Zheng and Li (2023) reported that digital collaborative environments allow learners to co-create meaningful content, encouraging real-time interaction and critical engagement. In the Philippine context, Espina and Bautista (2021) observed that students using platforms such as Google Docs, Canva, and Padlet for project-based learning demonstrated improved collaboration, creativity, and academic engagement. These studies support the findings in this table, affirming that collaborative project work, when supported by well-integrated ICT tools, greatly enriches the collaborative learning experience in both cognitive and social dimensions.

Summary of the Extent of Collaborative Learning Environments

Table 11 summarizes the respondents' assessments regarding the extent of collaborative learning environments across four key dimensions: online participation, group communication, sharing of resources, and collaborative project work. The overall mean score of 4.05 reflects an extensive implementation of cooperative learning practices in ICT-integrated classrooms. Among the components, group communication received the highest mean (4.09), underscoring its vital role in facilitating effective dialogue, coordination, and peer interaction. This was closely followed by collaborative project work (4.07), which reflects students' active engagement in group tasks and problem-solving using digital tools. Online participation also rated highly (4.05), highlighting consistent student engagement in virtual learning spaces. Meanwhile, resource sharing recorded a slightly lower but still *extensive* mean of 3.99, showing that learners actively contribute and access shared content for group-based academic tasks.

Table 11. Summary of the Extent of Collaborative Learning Environments

No	*Collaborative Learning Environments*	n	mean	Descriptive Interpretation
1	Online Participation	122	4.05	Extensive
2	Group Communication	122	4.09	Extensive
3	Sharing of Resources	122	3.99	Extensive
4	Collaborative Project Work	122	4.07	Extensive
	Overall Mean	**122**	**4.05**	**Extensive**

Zheng and Li (2023) emphasized that collaborative learning environments in digital classrooms thrive when learners are engaged in synchronous and asynchronous interactions, facilitating meaningful collaboration and knowledge construction. García-San Pedro et al. (2022) also found that diverse collaborative strategies, such as resource sharing, digital communication, and group projects, significantly contribute to academic success and student motivation. In the Philippine context, Ballado-Tan (2021) noted that during the shift to blended learning, collaboration was extensively maintained through platforms like Google Workspace, where communication, project coordination, and resource sharing remained central to classroom practice. These studies affirm the findings in this table, demonstrating that collaborative learning environments, when supported by ICT, are extensively practiced and significantly enhance student engagement and academic performance.

Significant Relationship Between Social Media Use in the Classroom and Collaborative Learning Environments

Table 12 presents the results of the correlation analysis examining the relationship between social media use in the classroom and the development of collaborative learning environments. The computed Pearson r-value of 0.244 and a corresponding p-value of < .007 indicate a weak positive but statistically significant relationship at the 0.05 significance level. The interpretation of the correlation suggests that as the use of social media platforms in classroom settings increases, there is a corresponding but modest improvement in collaborative learning practices. Given the significance level, the null hypothesis (H_0), which posited that there is no significant relationship between social media use and collaborative learning environments, is rejected. This confirms that social media integration contributes meaningfully, albeit to a limited extent, to enhancing collaborative learning processes in educational contexts.

Table 12. Significant Relationship between Social Media Use in the Classroom and *Collaborative Learning Environments*

Variables	*Collaborative Learning Environments*			
	r-value	**p-value**	**Interpretation**	**Decision**
Social Media Use in the Classroom	0.244	< .007	*Significant*	*Reject H_0*

****significant @p<0.05.***

Perfect Positive Correlation (r = 1.0); Strong Positive Correlation (0.7 ≤ r < 1.0); Moderate Positive Correlation (0.3 ≤ r < 0.7); Weak Positive Correlation (0 < r < 0.3); No Correlation (r = 0)

Barrot (2021) found that social media platforms such as Facebook and Google Classroom significantly enhance learner interaction and cooperative engagement, particularly in language learning contexts. Similarly, **García-San Pedro et al. (2022)** emphasized that integrating social media in project-based and peer-led learning fosters collaborative behaviors and co-construction of knowledge. In another study, **Manzoor et al. (2023)** reported a positive relationship between social media use and student collaboration, noting that students who frequently use digital platforms for academic purposes demonstrate improved communication and teamwork. Lastly, **Sevilla and Calimag (2022)** highlighted that in the Philippine basic education system, purposeful social media use during blended learning supported collaborative problem-solving and peer feedback mechanisms, leading to more interactive learning experiences.

Although the correlation is weak, the statistical significance indicates that social media is an enabling factor in building collaborative learning environments. Educators should enhance this relationship by strategically aligning social media use with instructional goals, fostering structured group interactions, and integrating digital tools that encourage authentic collaboration.

Domains of the Use of Social Media Platforms in the Classroom Setting Significantly Influence Collaborative Learning Environments

The model summary presents the statistical performance of two regression models in predicting the dependent variable (DV_AVE) representing the level of collaborative learning environments, using multiple independent variables. The models are evaluated through their R, R^2, Adjusted R^2, and Root Mean Square Error (RMSE) values. The first model (M_0) is a baseline model with no predictors, yielding R = 0.000, R^2 = 0.000, and Adjusted R^2 = 0.000, with a relatively high RMSE of 0.562. These values indicate that the baseline model has no predictive capability and explains none of the variance in the dependent variable. This serves as a reference point to assess the improvement offered by the second model.

In contrast, the second model (M_1), which includes the predictors FU_AVE (Frequency of Use), TSMP_AVE (Type of Social Media Platform), PU_AVE (Purpose of Use), IC_AVE (Integration with Curriculum), and TTS_AVE (Teacher Training and Support), shows a substantial improvement. This model records an R = 0.814, indicating a strong positive correlation between the independent and dependent variables. The R^2 = 0.663 suggests that the combined predictors explain approximately 66.3% of the variance in the collaborative learning environment (DV_AVE). The Adjusted R^2 = 0.648 accounts for the number of predictors used, reflecting a slightly lower but still strong explanatory power.

Additionally, the RMSE has decreased significantly to 0.333, indicating better model accuracy and reduced prediction error.

Model Summary - DV_AVE

R	R^2	Adjusted R^2	RMSE
0.000	0.000	0.000	0.562
0.814	0.663	0.648	0.333

Note. M_1 includes FU_AVE, TSMP_AVE, PU_AVE, IC_AVE, TTS_AVE

These results imply that including all five predictors significantly enhances the model's ability to explain variations in collaborative learning environments. This supports findings from recent studies. For instance, **García-San Pedro et al. (2022)** and **Zheng and Li (2023)** confirmed that the integrated use of digital tools, aligned with pedagogical and training dimensions, contributes meaningfully to the quality of collaborative learning. Similarly, **Barrot (2021)** emphasized the interplay of instructional purpose and teacher preparedness in optimizing the use of social media for educational collaboration. The strong R^2 and reduced RMSE in Model 1 validate the predictive value of these factors in shaping effective collaborative learning environments.

The Analysis of Variance (ANOVA) table provides an overall test of the significance of the regression model (**M_1**) predicting the dependent variable (**DV_AVE** – collaborative learning environment), using the combined predictors: **FU_AVE (Frequency of Use), TSMP_AVE (Type of Social Media Platforms), PU_AVE (Purpose of Use), IC_AVE (Integration with Curriculum),** and **TTS_AVE (Teacher Training and Support).**

The regression sum of squares is 25.339, which indicates what percent of the total variation in the baseball performance can be accounted for by the five players. The residual sum of squares is 12.891, and this is the amount of variance not explained by the model. The sum of squares of the between-group is 30.695, indicating the variance of collaborative learning environments.

The Mean Square value for regression is 5.068 and for residual is of 0.111. F = 45.602, (p < . 001. As the p-value is far less than 0.05, results show that the regression model is highly significant. This means that the combined predictors make a significant contribution meaningful to explaining the variance in CL environmental measure for the sample population.

ANOVA

Model		Sum of Squares	df	Mean Square	F	P
M_1	Regression	25.339	5	5.068	45.602	< .001
	Residual	12.891	116	0.111		
	Total	38.230	121			

Note. M_1 includes FU_AVE, TSMP_AVE, PU_AVE, IC_AVE, TTS_AVE

Note. The intercept model is omitted, as no meaningful information can be shown.

Recent empirical studies support these findings. García-San Pedro et al. (2022) highlighted that variables such as the frequency and purpose of social media use and alignment with curricular content significantly predict collaborative outcomes in digital classrooms. Barrot and Aglugub (2021) demonstrated that properly trained teachers who purposefully integrate social media into lessons see improved collaboration and student engagement. Manzoor et al. (2023) further validated that social media type and instructional intent strongly predict collaborative behavior in virtual learning spaces. The statistical significance of this model is consistent with these studies, confirming that structured and pedagogically aligned use of social media platforms enhances collaborative learning environments.

Table 13 presents the regression coefficient analysis to determine which domains of coordinated teaching strategies significantly influence academic consistency. The model includes five predictors: FU_AVE (Frequency of Use), TSMP_AVE (Type of Social Media Platforms), PU_AVE (Purpose of Use), IC_AVE (Integration with Curriculum), and TTS_AVE (Teacher Training and Support).

Table 13. Regression Coefficient Analysis of the Domain of Coordinated Teaching Strategies that Significantly Influence Academic Consistency

Model		Unstandardized	Standard Error	Standardized	t	p	decision
M_0	(Intercept)	4.055	0.051		79.673	< .001	
M_1	(Intercept)	0.398	0.259		1.537	0.127	
	FU_AVE	0.020	0.091	0.020	0.222	0.825	Accept Null
	TSMP_AVE	0.550	0.086	0.506	6.407	**< .001**	**Reject Null**
	PU_AVE	-0.161	0.074	-0.172	-2.187	**0.031**	**Reject Null**
	IC_AVE	0.268	0.088	0.270	3.053	**0.003**	**Reject Null**
	TTS_AVE	0.222	0.078	0.250	2.827	**0.006**	**Reject Null**

The analysis begins with the null model (**M_0**), where only the intercept is considered. The intercept in M_0 is **4.055**, significant at $p < .001$, representing the baseline level of academic consistency without considering the influence of any independent variable.

In the full model (**M_1**), the intercept value decreases to **0.398** ($p = 0.127$), indicating that without the influence of significant predictors, the mean value of the dependent variable is not statistically different from zero. The significant Predictors are **TSMP_AVE (Type of Social Media Platforms)** has a **positive and significant** effect on academic consistency with a **standardized beta of 0.506** ($t = 6.407$, $p < .001$). This suggests that using varied and effective social media platforms significantly enhances academic consistency among students.**PU_AVE (Purpose of Use)** has a **negative but significant** effect ($\beta = -0.172$, $p = 0.031$), implying that misaligned or unfocused use of social media, despite high frequency, may reduce academic consistency when the purpose is unclear or poorly executed.

IC_AVE (Integration with Curriculum) is a **significant positive predictor** (β = 0.270, p = 0.003), showing that aligning social media strategies with learning goals and curriculum standards supports academic consistency.

TTS_AVE (Teacher Training and Support) also shows a **significant positive influence** (β = 0.250, p = 0.006), emphasizing that teacher preparedness and institutional support are essential for maintaining uniform academic outcomes.

The Non-Significant Predictor is only **FU_AVE (Frequency of Use)**, which yielded a **non-significant result** (β = 0.020, p = 0.825), indicating that frequency alone does not significantly affect academic consistency. This highlights that quality and alignment of use matter more than how often the platforms are used.

The **null hypotheses are rejected** for **TSMP_AVE, PU_AVE, IC_AVE,** and **TTS_AVE**, confirming their **statistically significant influence** on academic consistency. The **null hypothesis is accepted** for **FU_AVE**, indicating it does **not significantly contribute** to explaining variance in the dependent variable.

These findings are consistent with current studies. **Barrot (2021)** emphasized that strategic and platform-specific social media use enhances academic delivery and consistency. **Alghamdi (2022)** stressed that curricular alignment and purpose-driven technology use are stronger predictors of student success than mere frequency. Similarly, **García-San Pedro et al. (2022)** confirmed that teacher training and digital integration significantly strengthen consistent student outcomes in collaborative digital learning environment.

Chapter 4 – Conclusions and Recommendations

This chapter presents the conclusions drawn from the study's significant findings entitled *"Influence of Social Media on a Collaborative Learning Environment in Mati North District."* It synthesizes the key results from statistical analyses and interprets their implications for teaching practices, curriculum implementation, and digital integration in classroom settings. Following the conclusions, this chapter outlines evidence-based recommendations to enhance the effective use of social media to foster collaborative learning. These recommendations are intended to guide educators, school leaders, and policymakers in strengthening instructional strategies and digital competencies within the educational system.

The findings revealed that the extent of use of social media platforms in the classroom setting was extensive across all measured domains. In terms of frequency of use, the overall mean was 3.96, indicating regular engagement of students and teachers in using social media for academic purposes. The type of social media platforms recorded the highest overall mean of 4.10, suggesting extensive use of varied platforms such as Facebook, Messenger, and Google Classroom, facilitating diverse instructional functions. The purpose of use attained a mean of 3.81, denoting extensive social media integration into learning tasks such as discussions, resource sharing, and student interaction. The domain of integration with curriculum yielded a mean of 4.02, indicating that educators aligned social media activities with curricular goals and standards. Finally, teacher training and support received a mean rating of 3.87, reflecting the extensive provision of professional development and institutional support systems that enabled effective implementation of digital tools.

As for the extent of collaborative learning environments, results indicated extensive implementation across four key components. Online participation obtained a mean score of 4.05,

demonstrating active student engagement in virtual discussions and digital forums. Group communication registered the highest mean in this domain, at 4.09, highlighting frequent use of real-time and asynchronous tools for dialogue, coordination, and collaborative feedback. The mean for sharing of resources was 3.99, showing that students actively exchanged academic materials, links, and multimedia content. Collaborative project work was also extensively practiced, with a mean score of 4.07, suggesting effective group task execution and joint creation of academic outputs using ICT tools.

The analysis of the relationship between the two major variables revealed that there is a statistically significant relationship between social media use in the classroom and collaborative learning environments, as evidenced by a Pearson correlation coefficient (r) of 0.244 and a p-value of < .007. While the correlation is classified as weak, it is statistically significant at the $p < .05$ level, leading to the rejection of the null hypothesis.

Further, the regression coefficient analysis identified four domains of social media use that significantly influence collaborative learning environments. The type of social media platforms had the most potent positive effect with a standardized beta (β) of 0.506 ($p < .001$). The integration with curriculum showed a significant positive influence ($\beta = 0.270$, $p = .003$), as did teacher training and support ($\beta = 0.250$, $p = .006$). Interestingly, the purpose of use had a significant adverse effect on collaborative learning ($\beta = -0.172$, $p = .031$), suggesting that social media's lack of a clear instructional purpose may hinder rather than support collaboration. On the other hand, the frequency of use was not significant ($\beta = 0.020$, $p = .825$), indicating that the frequency of social media engagement alone does not substantially influence collaborative learning outcomes.

Conclusions

Based on the findings of the study on the *Influence of Social Media on a Collaborative Learning Environment in Mati North District*, the following conclusions were drawn:

Social media platforms are extensively utilized in classroom settings across various dimensions, including frequency of use, platform type, instructional purpose, curricular integration, and teacher support. The type of social media platforms emerged as the most prominently applied component, suggesting that the appropriateness and diversity of platforms significantly contribute to their instructional effectiveness.

Collaborative learning environments are extensively manifested in the use of ICT tools to support online participation, group communication, resource sharing, and collaborative project work. These elements indicate that students are engaging in digital spaces and actively involved in peer-to-peer learning, content co-creation, and critical thinking through technology-mediated collaboration.

There is a statistically significant relationship between social media use and collaborative learning environments, indicating that the integration of social media in the classroom contributes positively, albeit modestly, to collaborative learning. This implies that when used meaningfully, social media can enhance the interactive and participatory dimensions of learning.

Among the five domains of social media use assessed, four significantly influenced collaborative learning environments. Specifically, the type of social media platforms, integration with the curriculum, and teacher training and support positively influenced collaboration. At the same time, the purpose of use, though significant, showed a negative association, suggesting that poorly defined or misaligned objectives may diminish collaborative outcomes. In contrast, frequency of use was not a significant predictor, reinforcing that quality and strategic application of social media are more critical than how often it is used.

Recommendations

In light of the conclusions derived from the findings, the following recommendations are proposed to strengthen the use of social media in fostering collaborative learning environments in the classroom:

Enhance the strategic selection and use of social media platforms by promoting those that support educational collaboration, such as Google Classroom, Microsoft Teams, and Facebook Groups. Teachers should be guided to match platform features with specific learning objectives to maximize interactivity, knowledge sharing, and group engagement.

Clarify and align the instructional purpose of social media use within lesson planning and classroom activities. School administrators and instructional leaders should encourage teachers to define clear pedagogical goals before integrating digital tools to ensure that social media enhances, rather than distracts from, collaborative learning.

Strengthen the integration of social media use with the curriculum by embedding digital collaboration activities in daily teaching practices. Instructional supervisors may provide sample learning plans, curriculum maps, or exemplar projects illustrating how social media can reinforce subject content and competencies.

Expand and sustain professional development programs focused on digital pedagogy, particularly those that enhance teachers' competencies in using social media for collaborative learning. Training sessions should include practical demonstrations, best practices, and peer mentoring strategies to build teacher confidence and instructional capacity.

Promote the creation of institutional support structures, such as ICT focal teams or help desks, that provide real-time assistance to teachers using social media platforms. This would ensure that technical challenges are minimized and innovative practices are sustained.

Discourage the mere frequency of social media use without pedagogical intent by emphasizing quality over quantity. Monitoring mechanisms should be established to assess the instructional value of digital activities and ensure they are aligned with meaningful learning experiences.

Conduct further research on instructional alignment and student outcomes, particularly to understand the negative association between poorly defined purpose and collaborative learning. Future studies may explore qualitative aspects of social media use to inform more nuanced and context-sensitive integration strategies.

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