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Evaluating the Effectiveness of Social Media as a Pedagogical Tool in Primary Education

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Abstract

Social media has traditionally been viewed as a distraction, this research repositions it as a conduit for meaningful, socially embedded learning when used intentionally within the framework of constructivist pedagogy. With mixed-methods research design, the quantitative phase of the study utilized Likert-scale administered to students and teachers. To complement the numerical trends, qualitative data was collected through semi-structured interviews with teachers and administrators. Results indicated that students generally held favorable attitudes toward social media integration. Results indicated that students generally held favorable attitudes toward social media integration. Over 70% of respondents either agreed or strongly agreed that social media tools had improved their conceptual understanding, particularly through visual and interactive content. Findings recommended that there was a moderate but consistent increase in student engagement and motivation. Students reported feeling more interested in classwork when it involved creative expression through platforms like blogs, image boards, or shared videos. These expressions are not mere entertainment but opportunities for deeper intellectual and emotional investment, enabling students to express ideas in multimodal forms and receive immediate feedback. The study advocates for curriculum designers to reimagine lesson planning by embedding collaborative, reflective, and exploratory digital tasks that mirror real-life problem-solving.

Keywords: *Social media, pedagogical tool, education, children education, primary education*

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Introductıon

In the 21st century, education systems worldwide are experiencing a transformative shift, largely driven by advancements in digital technologies. The rapid proliferation of the internet, smartphones, and social media platforms has reshaped the way knowledge is accessed, shared, and consumed. In particular, social media has emerged as a powerful communication and collaboration tool, not just for informal social interaction but also within structured educational environments. While much research has examined the implications of digital learning in higher education, relatively less focus has been directed at primary education, where foundational cognitive, emotional, and social development occurs. This research seeks to bridge that gap.

Primary school students—typically aged 6 to 12—are increasingly exposed to digital platforms at home and, in many cases, within the school environment. Devices such as YouTube, WhatsApp, Facebook (for guardians or course groups), educational blogs, intelligent wikis, and class-specific apps are finding their way into classrooms. Teachers are investigating these apparatuses to lock in students, encourage learning, upgrade communication with guardians, and advance collaborative ventures. The central premise of this consideration is that, when utilized intentionally, social media has the potential to become an energetic educational apparatus, capable of cultivating engagement, imagination, and collaborative learning in essential instruction. In any case, this potential must be weighed against developing concerns encompassing student attention span, information protection, screen time, and formative fittingness.

At the heart of this move is the thought of engagement. Conventional strategies, whereas still foundational, frequently battle to compete with the fast-paced, mixed media substance that children experience exterior the classroom. Instructors who consolidate brief instructional recordings, advanced narrating, or virtual classroom discourses by means of closed-group platforms see a noteworthy increment in student engagement and support. Youthful learners, especially those within the age of 7-12, react more positively to substance that's visual, intelligent, and energetic. Social media offers precisely that, a way to break down complex thoughts into edible groups while cultivating a sense of connectedness past the classroom dividers.

Another compelling perspective is collaboration. Not at all like in past decades, where learning was a single act, today’s instruction flourishes on interaction. Through lesson blogs, shared computerized portfolios, or straightforward informing apparatuses, students can presently contribute

thoughts, comment on each other's work, and feel part of a learning community. This supports communication abilities, peer criticism, and indeed enthusiastic intelligence skills that are progressively esteemed in 21st-century instruction.

In any case, this integration isn't without its challenges. Instructors must stay careful against abuse, protection infringement, and screen overexposure. Moreover, the viability of social media devices pivots on appropriate preparation and approaches. Teachers must be prepared not as it were with advanced aptitudes but also with a solid understanding of age-appropriate content and stage security conventions.

What develops from current classroom tests isn't a clear-cut support or dismissal of social media, but a nuanced realization: when utilized deliberately, with guided balance and reason, social media can complement conventional instructional methods and improve essential instruction in significant ways. It welcomes a move from inactive retention to dynamic cooperation, from memorization to investigation. The challenge for teachers, guardians, and policymakers is to guarantee that the apparatus is utilized to open doors to learning, not to shut them.

"Social media" alludes to advanced stages and applications that empower clients to create, share, and associate with content and with each other in real-time or concurrently. Examples include YouTube, Facebook (often mediated by parents or educators), WhatsApp groups, Edmodo, blogs, wikis, and classroom management apps like ClassDojo or Seesaw. While platforms like Instagram and TikTok are more common among older students, primary learners often engage with social media through family-mediated content or school-directed platforms.

"Pedagogical tool" refers to any resource or strategy used by educators to facilitate learning objectives. In this context, it encompasses the use of social media to achieve specific educational goals, such as enhancing literacy, numeracy, critical thinking, digital citizenship, or collaboration. "Primary education" is defined as the formal schooling of children aged 6 to 12 years, typically from grades 1 to 5 or 6, depending on the national education system.

This research is significant on multiple levels. Academically, it contributes to the relatively sparse body of literature on the use of social media in primary school contexts, a domain often overlooked in favor of secondary or tertiary education. Practically, it offers evidence-based insights for educators, school administrators, and policymakers regarding best practices and potential pitfalls in using social media for instruction.

In regions like Pakistan and other developing countries, where smartphone penetration is high and traditional classroom resources may

be limited, social media presents an accessible and low-cost opportunity to innovate pedagogical practices. Moreover, in the post-COVID educational landscape, where hybrid and remote learning models are becoming more common, understanding how to effectively use social media tools is more urgent than ever.

Literature Review

Social media has shown potential in improving students' academic performance through greater access to resources, collaborative opportunities, and learner-centered instruction (Junco, 2012; Greenhow & Robelia, 2009). A study by Wang et al. (2011) found that integrating social media tools such as blogs and YouTube into language instruction improved writing skills and learner motivation. Similarly, Ebner et al. (2010) observed enhanced comprehension and retention among primary school children who used wikis for project-based learning.

Engagement, both emotional and cognitive, is a critical factor in effective learning. Social media platforms, by facilitating instant feedback and personalization, have been shown to significantly increase student engagement (Dabbagh & Kitsantas, 2012). Tess (2013) emphasized that student-led learning via social platforms boosts intrinsic motivation. For instance, elementary students using Seesaw to document and reflect on their learning demonstrated higher engagement and autonomy (Cox & Graham, 2019).

Social media fosters peer collaboration, essential for cognitive and social development in primary education (Johnson & Johnson, 1999). Studies by Manca and Ranieri (2016) and Hamid et al. (2015) revealed that platforms like Facebook and Edmodo promote classroom dialogue and idea exchange, while blogs support collaborative content creation and peer feedback (Top, 2012).

The inclusion of social media in educational contexts has encouraged early development of digital literacy. Buckingham (2007) argued that digital media can be an effective avenue for teaching students to critically engage with information. According to Hobbs (2010), primary learners who participate in classroom blog discussions gain early exposure to digital citizenship. This is supported by a study from Livingstone and Helsper (2007), which demonstrated improved online safety awareness among children exposed to media literacy instruction.

Social media also improves school-home communication. Kay et al. (2014) found that platforms such as Facebook and ClassDojo increased parental awareness and involvement in school activities. In primary

schools in the UK, regular use of Twitter and school blogs facilitated consistent communication and community building (Lundy et al., 2010).

In spite of its preferences, intemperate or unstructured social media utilize may impede attention span and decrease profound learning (Rosen et al., 2013). Ophir et al. (2009) found that media multitasking prevents maintained consideration, a pivotal ability in early instruction. This concern is echoed by Kirschner and Karpinski (2010), who famous that understudies as often as possible diverted by social media scored lower on scholarly tests.

Drawn-out screen presentation raises critical concerns, particularly for more youthful learners. The American Institute of Pediatrics (2016) prescribed time limits and supervision for advanced media utilize in children under 12. The American Institute of Pediatrics (2016) prescribed time limits and supervision for advanced media utilize in children under 12. Twenge et al. (2018) connected expanded screen time with lower well-being, whereas Straker et al. (2018) related excessive utilize to poor posture and decreased physical activity. Privacy and security remain noteworthy issues. Youthful children frequently need cognitive development to protect themselves protection dangers online. Anger et al. (2013) famous that most children under 13 are ignorant of how their information is collected or shared. According to Livingstone et al. (2011), parental supervision and instructor instruction are imperative in building up secure advanced behaviors.

The successful execution of social media as an educational device depends intensely on educator readiness. Ertmer and Ottenbreit-Leftwich (2010) contended that conviction frameworks and self-efficacy decide innovation selection. Investigate by Believe et al. (2016) highlights the significance of proficient advancement to direct important integration. Social values and infrastructural capabilities shape how social media is seen and utilized in classrooms. Warschauer (2004) found that low-resource settings confront advanced disparity that can ruin execution. In Pakistan, Mahboob (2020) detailed that whereas portable get to is high, network and instructor preparation remain conflicting.

Theoretical Framework

This research study was underpinned by several interrelated theoretical foundations:

Constructivist Learning Theory (Piaget, Vygotsky) Social media, by nature, bolsters constructivist approaches wherein learners construct information effectively through interaction, investigation, and collaboration. Stages such as lesson wikis or collaborative blogs permit students to co-construct content and engage in peer-to-peer feedback. The

joining of social media into essential instruction finds solid theoretical mooring within the constructivist learning worldview, as verbalized by Jean Piaget and Lev Vygotsky. At its center, constructivism suggests that children learn best not through inactive gathering of data, but by effectively building information through encounters, exchange, and significant engagement with their environment. Both Piaget and Vygotsky emphasized that learning could be an energetic, relevant, and socially embedded. Social media, when mindfully actualized in classroom settings, offers accurately the kind of intelligent and participatory learning space that constructivist masterminds imagined. Piaget highlighted the role of cognitive advancement and discovery-based learning, contending that children move through stages of expanding unique thinking and advantage most from exercises that permit investigation and self-directed inquiry. Social media platforms such as instructive blogs, student-led video channels, or intuitive discourse strings encourage children to pose questions, express suppositions, and explore with unused thoughts in a guided environment.

When an understudy clergymen substance for a lesson on an Instagram page, records an intelligent video, or contributes to a lesson wiki, they are not memorizing facts; they are effectively synthesizing and displaying their understanding in their claim words and groups. This adjusts specifically with Piaget's concept of construction arrangement through dynamic engagement. In the meantime, Vygotsky's commitments loan indeed more profound motivation for social media utilization in essential instruction. Central to his hypothesis is the Zone of Proximal Advancement (ZPD)'s the space between what a child can do freely and what they can do with the support of a peer or instructor. Social media, by its intrinsically social nature, cultivates this strong learning intelligence. For example, peer comments on a shared venture, collaborative narrating on a course web journal, or teacher-guided video criticism each act as scaffolding bolsters that empower learners to move past their personal capacities. In these minutes, students are inundated with the co-construction of meaning, a process Vygotsky accepted was central to learning. Surrounding our request around the four inquiries about questions, a conceptual model grounded in constructivism permits for a precise investigation of how social media impacts learning results, engagement, computerized education, and the relevant variables influencing execution.

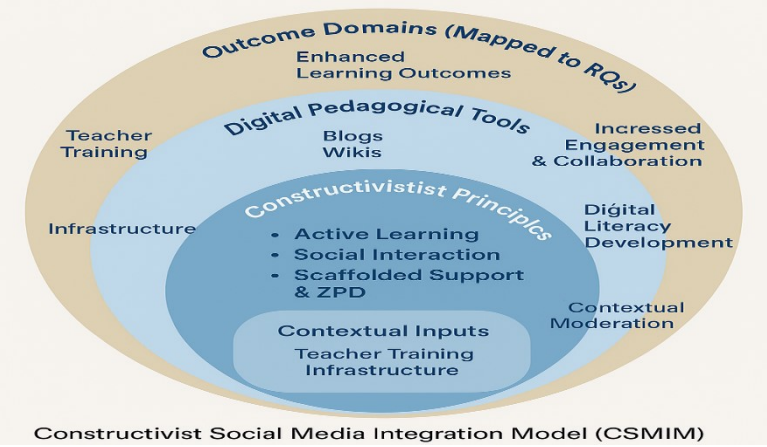

Figure 1. Constructivist Social Media Integration Model (CSMIM) (Yeh & Swinehart, 2018)

Research Objective

This study is guided by the research objective 'to evaluate the effectiveness of social media as a pedagogical tool in primary education settings, with attention to both its benefits and limitations.

For this objective, following research questions are derived:

1) To what extent does social media use enhance learning outcomes among primary school students?
2) How does social media affect student engagement, motivation, and collaboration?

Methodology

Research Design

This study involved a mixed-methods investigation plan to capture the multifaceted nature of social media integration inside essential instruction. This approach empowers the analyst to gather both quantitative information to assess the quantifiable impacts on learning results, and subjective information to investigate the fundamental elements of classroom engagement, inspiration, and computerized interaction. Anchored in the constructivist paradigm, the study views learning not as a passive transmission of information but as an active process of meaning-making, shaped through exploration, collaboration, and interaction with digital tools. Constructivism, particularly as articulated by Piaget and Vygotsky, informs not only the theoretical lens but also the methodological choices of the study. The research design is both

exploratory—to investigate emerging patterns in the use of social media—and evaluative, aiming to assess the pedagogical value and contextual efficacy of these digital platforms in primary classrooms.

Population and Sampling

The target population includes primary school students from Grades 3 to 5, along with their teachers and school administrators, drawn from both public and private schools in urban areas. The rationale for focusing on these age groups stems from the developmental readiness of students to engage meaningfully with digital content, while still being within the formative years of education. The sampling strategy employed is purposive, designed to ensure that selected schools already make use of social media or similar digital tools as part of their instructional practices. This purposive approach allows for depth over generalizability, enabling the research to explore cases where digital integration is already present to some extent.

Table 1
Sample Composition

Participants	Total Number	Distribution per School	Role/Focus
Students	120	30 students from each of 4 schools	Understanding learning experiences and social media use
Teachers	12	3 teachers per school	Insights on pedagogy, classroom integration, and challenges
Administrators	4	1 per school	Input on policies, digital infrastructure, and strategy

Data Collection Methods

To address the four core research questions, the study utilized two complementary data collection tools, enabling a triangulated approach to data validation and interpretation.

(i) Structured Questionnaires

Administered to both students and teachers, it included a mix of close-ended questions and Likert-scale items. The questionnaire aims to measure: learning outcomes (RQ1) – through student self-perception and teacher-reported

progress, engagement and collaboration (RQ2) – through frequency of participation, enthusiasm, and interaction in social media-enabled activities, and digital literacy (RQ3) – assessing comfort, ethical understanding, and proficiency in using digital tools.

(ii) Semi-Structured Interviews

These interviews, conducted with both teachers and administrators, aim to unpack the contextual and design variables (RQ4) that shape the pedagogical success of social media. Guiding questions was explore: The selection and use of platforms (e.g., Seesaw, Google Classroom, ClassDojo), teacher training and confidence in using technology, infrastructure constraints, such as access to devices or internet reliability, and policy considerations, including parental consent and digital safety

Data Analysis

(i) *Quantitative Analysis*

Responses from the questionnaires was analyzed using descriptive statistics, including measures of central tendency (mean, mode) and dispersion (standard deviation).

(ii) Qualitative Analysis

Thematic analysis was employed for the interview transcripts.

Findings

Findings of Qualitative Data Analysis

Using an inductive coding approach, data was categorized according to emergent themes such as:

- Constructivist learning behaviors (student agency, dialogue, experimentation)
- Pedagogical strategies for integrating social media
- Barriers to implementation, including infrastructure gaps and resistance to change
- Scaffolding techniques used by teachers to support digital learning within the ZPD

This qualitative interpretation will be deeply informed by the constructivist lens, examining how observed practices reflect principles of exploration (Piaget) and social mediation (Vygotsky).

Descriptive Statistics

To evaluate the perceived impact of social media on learning, engagement, collaboration, and digital literacy, data were collected using a structured

Likert-scale questionnaire administered to 120 primary school students. Responses were scored on a 4-point Likert scale ranging from 1 (Strongly Disagree) to 4 (Strongly Agree). Table 1 presents the descriptive statistics for each of the key constructs.

RQ: To what extent does social media use enhance learning outcomes among primary school students?

Table 1

Social Media use enhances learning outcomes among primary school students?

Variable	Mean	SD	Min	Max
Understanding Improved	2.91	0.85	1	4
Engagement Increased	2.78	0.89	1	4
Group Collaboration	2.93	0.90	1	4
Digital Literacy Confidence	2.88	0.88	1	4

These findings indicate that, on average, students agreed or strongly agreed that social media enhances their understanding (M = 2.91, SD = 0.85) and facilitates collaboration (M = 2.93, SD = 0.90). Digital literacy confidence also scored positively (M = 2.88, SD = 0.88), suggesting students feel relatively comfortable using technology in the classroom.

RQ: How does social media affect student engagement, motivation, and collaboration?

Table 2

Student Responses on Social Media engagement, motivation, and collaboration

Likert Response	Understanding Improved	Engagement Increased	Group Collaboration	Digital Literacy Confidence
S. Disagree	7	8	11	9
Disagree	25	26	14	22
Neutral	26	25	24	28
Agree	38	39	47	34
S. Agree	24	22	24	27

According to the results above, the majority of students responded favorably to the use of social media in learning. For instance, 62 students

(51.6%) either agreed or strongly agreed that their understanding of academic content improved when digital tools were used in class. A similar trend was seen in collaboration, where 71 students (59.1%) expressed positive agreement, affirming the facilitation of group learning and shared digital tasks. It is also important to note that a significant portion of students selected "Neutral" across all four categories—ranging from 20.0% to 23.3%—indicating that some learners may still be in the process of adjusting to the digital learning environment or may not be fully aware of the pedagogical intent behind digital tools.

Discussion

The findings of this study reported that when strategically implemented, social media serves as a valuable pedagogical tool in primary education, with tangible benefits to both cognitive and social dimensions of learning. The data reveals that students perceived an improvement in their learning when lessons included multimedia content or class blogs. This supports Piaget's theory of active learning, where students internalize new concepts more effectively through direct engagement, particularly in visual or problem-based formats. Social media enables this by introducing dynamic, contextual stimuli that support assimilation and accommodation processes.

The most encouraging finding relates to collaboration, with the highest agreement recorded under this domain. This confirms that digital tools, especially those that allow commenting, feedback, and joint content creation support Vygotsky's emphasis on cooperative learning within the Zone of Proximal Development. Students become co-constructors of knowledge when given the platform to articulate their thinking and respond to peers.

Digital literacy emerged as another positive domain, though responses were slightly more varied. This may indicate that while a majority of students feel confident using digital tools, others particularly those with limited home access—may lag behind. This calls for targeted digital skills integration within curricula, especially in early grades, ensuring equitable development of digital competencies.

The presence of a sizable neutral response—nearly a quarter of participants for each variable requires careful interpretation. Neutrality in this context may not signify indifference; rather, it may reflect:

- Ambiguity in how social media is used pedagogically.
- Inconsistent access to devices or platforms.
- Or cognitive uncertainty due to lack of digital familiarity.

This insight underscores the need for consistent, guided, and equitable integration of social media platforms, along with teacher facilitation and structured reflection for learners.

Conclusion

These quantitative findings offer strong preliminary evidence for the effectiveness of social media tools in supporting constructivist learning in primary education. The integration of digital platforms appears to foster understanding, engagement, and collaboration, particularly when supported by thoughtful instructional design and teacher mediation. These results lay the foundation for deeper insights that will emerge through the qualitative phase of the research.

Given the involvement of minors, the study adheres strictly to ethical protocols. Informed consent was obtained from parents/guardians, and assent was secured from the students. All participants was informed about the voluntary nature of the study, the confidentiality of their responses, and their right to withdraw at any stage without consequence.

The study acknowledges certain constraints. The non-random sampling approach limits the generalizability of the findings. Moreover, the reliance on self-reported data from young learners may introduce biases. Another limitation lies in the varying degrees of digital maturity among schools, which may affect consistency in the implementation and observation of social media practices. Despite these limitations, the triangulation of methods enhances the trustworthiness and depth of the findings.

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