

Collaborative vs. Consumptive Social Media Use: Differential Effects on Academic Performance Across Educational Levels

*Uso colaborativo frente a uso consuntivo de redes sociales: Efectos
diferenciales en el rendimiento académico según el nivel educativo*

Yovana Tite León

Docente del Tecnológico Universitario Espíritu Santo. Ecuador

yova1403@gmail.com

 0009-0008-8208-23678

Keyla Stefania Chalen Soledispa

Universidad Bolivariana del Ecuador

kschalens@ube.edu.ec

 0009-0005-8205-1403

Cómo citar este artículo / Referencia normalizada: (Norma APA 7ª)

Tite León, Yovana; Chalen Soledispa, Keyla Estefanía (2026). Collaborative vs. Consumptive Social Media Use: Differential Effects on Academic Performance Across Educational Levels. *Uso colaborativo frente a uso consuntivo de redes sociales: Efectos diferenciales en el rendimiento académico según el nivel educativo*. Revista Indómita Journal, Vol.2, No.1, 36-48

Fecha de Recepción: 21/02/2026

Fecha de Aceptación: 22/04/2026

Fecha de Publicación: 29/06/2026

ABSTRACT

Introduction: This study investigates how distinct patterns of social media engagement—collaborative academic use versus passive content consumption—differentially affect academic performance across high school and undergraduate populations. **Methodology:** A systematic literature review of peer-reviewed articles from the ERIC database published between 2020 and 2026 was conducted, applying the search query *social media AND study habits AND academic performance*. Two studies met the inclusion criteria: one examined high school students through standardized regression coefficients, and the other analyzed undergraduates using GPA comparisons. **Discussion:** The synthesis reveals a critical dichotomy. For high school students, collaborative use of social media for sharing academic information with classmates positively predicted academic performance, while common distractions such as interruptions or time lost to social media did not yield statistically significant negative effects. In contrast, undergraduate students engaging intensively with short-form video content (e.g., TikTok or Instagram Reels) demonstrated a significantly lower mean GPA of 2.8 (SD = 0.6). Qualitative findings further indicated that 88.6% of students used social media for family and friends, and 80% for entertainment, with habitual consumption fostering

procrastination and multitasking that degraded attention. **Conclusions:** The impact of social media is not uniform; it is critically mediated by the nature of usage and educational level. This research contributes the novel insight that constructive collaboration can be harnessed as a positive academic tool, whereas passive consumption of shallow content poses a clear threat to university-level achievement. These findings therefore inform differentiated educational policies that promote beneficial social media practices while mitigating harmful exposure to distracting content.

Keywords: Social media, Academic performance, Collaborative use, Passive consumption, Students.

RESUMEN

Introducción: Este estudio investiga cómo los distintos patrones de interacción en redes sociales —el uso académico colaborativo frente al consumo pasivo de contenidos— afectan de manera diferencial al rendimiento académico en poblaciones de educación secundaria y universitaria. **Metodología:** Se llevó a cabo una revisión sistemática de la literatura de artículos revisados por pares en la base de datos ERIC publicados entre 2020 y 2026, aplicando la estrategia de búsqueda *social media AND study habits AND academic performance*. Dos estudios cumplieron con los criterios de inclusión: uno examinó a estudiantes de secundaria mediante coeficientes de regresión estandarizados y el otro analizó a universitarios utilizando comparaciones de promedio de calificaciones (GPA). **Discusión:** La síntesis de los datos revela una dicotomía crítica. En los estudiantes de secundaria, el uso colaborativo de las redes sociales para compartir información académica con sus pares predijo positivamente el rendimiento escolar, mientras que las distracciones comunes y el tiempo perdido no generaron efectos negativos estadísticamente significativos. Por el contrario, los estudiantes universitarios que interactuaban intensamente con contenidos de video de formato corto (e.g., TikTok o Instagram Reels) demostraron un promedio de calificaciones significativamente menor, situándose en un GPA de 2.8 (DE = 0.6). Los hallazgos cualitativos indicaron además que el 88.6% de los alumnos usaba las redes para comunicarse con familiares o amigos y el 80% por entretenimiento, donde el consumo habitual fomentó la procrastinación, el desarrollo de tareas múltiples y el deterioro de la atención. **Conclusiones:** El impacto de las redes sociales no es uniforme, sino que está mediado de forma crítica por la naturaleza del uso y el nivel educativo. La colaboración constructiva puede aprovecharse como una herramienta pedagógica positiva, mientras que el consumo pasivo de contenidos superficiales representa una amenaza directa para el logro universitario, lo que fundamenta la necesidad de diseñar políticas educativas diferenciadas que mitiguen la exposición nociva y promuevan prácticas beneficiosas.

Palabras claves: Redes sociales, Rendimiento académico, Uso colaborativo, Consumo pasivo, Estudiantes.

1. INTRODUCTION

The pervasive integration of social media into daily life has fundamentally transformed how students interact with information, peers, and educational content. As digital platforms become increasingly embedded in academic routines, a central question emerges: does social media inherently hinder or help learning? The answer, our research contends, is far from straightforward. Early investigations into this relationship often produced conflicting results, with some studies finding negative correlations between usage time and grades, while others observed no significant effect or even positive outcomes. This inconsistency suggests that the aggregate measure of “time spent on social media” is an insufficient predictor of academic success. Instead, the specific nature and purpose of engagement—whether for collaborative academic exchange or passive consumption of entertainment content—may be the decisive factor.

The broader academic environment itself is undergoing a profound digital transformation, evolving into what researchers describe as a digital learning ecosystem (Anvari et al., 2024). In such an ecosystem, institutions must navigate the complex interplay between pedagogical goals and the ubiquitous presence of digital tools (Davis, 2023). This transformation affects all dimensions of the educational enterprise, from curriculum design

to student engagement strategies (Bass & Eynon, 2017). Within this landscape, social media platforms are not merely external distractions but are often integrated into the very fabric of student communication and collaboration. However, the digital ecosystem also includes content delivery mechanisms, such as short-form video platforms, that are designed to capture attention through rapid, intermittent rewards. Hence, understanding how different usage patterns operate within this broader digital environment is crucial for designing effective interventions.

A growing body of literature supports the notion that social media's influence is mediated by usage patterns. Some studies have demonstrated that using social media for educational purposes, such as joining subject-specific groups or sharing study resources, can enhance collaborative learning and improve study habits (Abuzar & Hussain, 2024). Conversely, other research highlights that uncontrolled recreational use negatively affects concentration and time management, leading to poorer academic outcomes (Hamidah, 2025). Distraction caused by disruptive multitasking impairs concentration and prevents students from sustaining deep focus on academic tasks (Al-Yafi et al., 2018). These findings collectively indicate that the relationship between social media and academic performance is far more nuanced than a simple linear correlation.

The present research aims to resolve this apparent contradiction by systematically comparing the differential impact of social media usage patterns—specifically, constructive academic collaboration versus passive consumption of short-form content—across two distinct educational levels: high school and undergraduate students. We hypothesize that the effect of social media on academic performance is not uniform but is critically moderated by both the nature of engagement and the developmental stage of the learner. Specifically, we predict that collaborative, academically-oriented use will positively predict performance, while passive consumption of cognitively shallow content will negatively predict it, with these effects being more pronounced in undergraduate populations who face greater demands on sustained attention.

The primary contribution of this research is the provision of a synthesized, comparative perspective that highlights the critical mediating role of usage patterns and educational context. While previous studies have examined social media's effect on specific cohorts, our work integrates evidence from both high school and university settings to reveal a developmental shift. For high school students, collaborative use emerges as a positive predictor, whereas for undergraduates, the negative impact of intensive short-form content consumption becomes dominant. This insight is significant because it moves beyond a monolithic view of social media as either “good” or “bad” for academics, instead offering a more granular framework that can inform targeted educational policies. By identifying which specific behaviors to encourage and which to mitigate, institutions can better harness the potential of digital tools while protecting students from their most harmful effects.

The remainder of this paper is organized as follows: Section 2 reviews the relevant literature on digital ecosystems and social media's influence on study habits and academic outcomes. Section 3 details the systematic review methodology employed. Section 4 presents the synthesized quantitative and qualitative findings. Section 5 discusses the implications of the observed dichotomy, and Section 6 provides concluding remarks and recommendations for educational practice.

The relationship between social media usage and academic performance has been examined through multiple theoretical lenses, with researchers increasingly recognizing that the dichotomy between productive and consumptive use is central to understanding observed effects. From a cognitive load perspective, consuming short-form video content—characterized by rapid scene changes and minimal cognitive depth—imposes a high extraneous cognitive load that disrupts the consolidation of information into long-term memory. This mechanism aligns with findings that undergraduates who engage intensively with such content demonstrate significantly lower attention spans and poorer academic outcomes. The cognitive toll is not merely additive; rather, it interacts with the demands of higher education, where sustained focus on complex material is essential. Passive consumption thus creates a fundamental mismatch between the attentional habits cultivated by social media and the deep processing required for university-level learning.

Prior work has also explored the mediating role of study habits and time management. Social media usage that is not goal-oriented frequently leads to procrastination and multitasking, which fragment study time and reduce the quality of learning sessions. Research indicates that students who use social media for recreational purposes during study hours experience greater difficulty regaining concentration, which compounds over time into chronic attentional deficits (Yar, 2025). These behaviors are particularly prevalent among undergraduates, who often manage heavier workloads and more autonomous schedules than high school students. The voluntary but habitual nature of checking social media feeds fosters a cycle of interruption and resumption that degrades cognitive performance, even when total screen time is moderate.

Interestingly, the literature also documents beneficial uses of social media when engagement is structured around academic collaboration. For high school students, joining study groups, sharing notes, or discussing homework on platforms such as WhatsApp or Facebook can augment traditional classroom learning (Oginni et al., 2016). This collaborative pattern transforms social media from a source of distraction into a tool for peer-assisted learning. The positive effect observed for high school students may also reflect the nature of secondary education, where curricula are more structured and collaborative tasks are more explicitly integrated into classroom activities. In such environments, social media extends rather than replaces formal learning channels. Furthermore, the finding that common distractions—such as losing concentration due to interruptions—do not statistically significantly harm performance among high schoolers suggests a resilience or compensatory mechanism that operates differently at this educational stage.

Despite these nuanced findings, much of the existing literature has treated educational level as a control variable rather than a primary moderating factor. Most studies either focus exclusively on university students (Nurudeen et al., 2023) or on high school cohorts (Ezeji & Ezeji, 2018), with few adopting a comparative design across both groups. This gap limits our ability to understand how the impact of social media evolves as students transition from the structured environment of secondary school to the more independent context of higher education. Additionally, the operationalization of social media usage is often coarse—measuring total hours per day rather than distinguishing between collaborative and consumptive activities. The present research addresses these limitations by systematically comparing evidence from both educational levels and by focusing on the differential effects of engagement type rather than aggregate usage. Consequently, our work contributes a refined framework that accounts for both the nature of use and the developmental stage of the learner, offering a more actionable basis for educational policy.

2. OBJECTIVES

The primary purpose of this case study is to evaluate the impact of implementing the "Minjares" method as a psychopedagogical strategy aimed at optimizing reading and writing competencies in a student with intellectual disability, thereby providing empirical evidence regarding the relevance and viability of this analytical-global approach within inclusive education contexts.

To achieve this general aim, the research is methodologically structured around three specific objectives: first, to diagnose the neurodevelopmental profile and define the core instrumental linguistic needs of the student through a comprehensive clinical and psychopedagogical assessment battery; second, to design and execute an individualized psychopedagogical intervention program, progressively, sequentially, and multisensorially structured based on the selected method; and finally, to determine the progress achieved by the student in the phonological, graphological, and semantic comprehension dimensions through the technical contrast of pre- and post-intervention indicators.

3. METHODOLOGY

This section describes the systematic literature review methodology employed to investigate the differential

impact of social media usage patterns on academic performance across high school and undergraduate populations. The methodological approach was designed to ensure transparency, reproducibility, and rigor in the synthesis of existing evidence.

Search Strategy and Database Selection

We conducted a comprehensive search of the ERIC (Education Resources Information Center) database, which was selected for its extensive indexing of peer-reviewed educational research literature. The search strategy employed a Boolean query string designed to capture studies examining the intersection of social media engagement, study behaviors, and academic outcomes. Specifically, we applied the query social media AND study habits AND academic performance to the ERIC database. This combination of terms was chosen to operationalize the central constructs of our research question: the independent variable (social media usage), the mediating variable (study habits or concentration), and the dependent variable (academic performance). To ensure the retrieval of contemporary evidence reflective of current social media platforms and usage patterns, search results were limited to peer-reviewed articles published between 2020 and 2026. This time frame captures the period during which short-form video platforms such as TikTok and Instagram Reels gained widespread adoption among student populations, thereby enabling an investigation of their specific effects.

Inclusion Criteria and Study Selection

From the initial search results, two peer-reviewed articles met our inclusion criteria and provided usable quantitative and qualitative evidence. The inclusion criteria required that each study: (a) be published in a peer-reviewed journal within the specified date range, (b) report an empirical investigation linking social media usage to an academic performance metric (e.g., grade point average or academic percentage), (c) include a sample drawn from either a high school or undergraduate population, and (d) provide sufficient statistical detail (effect sizes, correlation coefficients, or group means with standard deviations) to enable comparative synthesis. Studies were excluded if they focused exclusively on non-student populations, addressed social media solely as a pedagogical tool without measuring usage patterns, or reported only qualitative data without quantitative performance metrics. The two retained studies represent distinct educational levels: one focused on high school students and the other on undergraduate students, thereby providing the comparative dimension central to our research question.

Data Extraction and Variables

For each included study, we extracted data across three methodological dimensions: sample characteristics, measurement instruments, and reported effect sizes. Regarding sample characteristics, we recorded the population type (high school or undergraduate), sample size, and demographic details where available. For measurement instruments, we documented the tools used to assess both social media usage patterns and academic performance. Usage was typically measured through self-report frequency scales or Likert-type items assessing distraction, multitasking, and the purpose of engagement (e.g., collaborative study versus entertainment). Academic performance was operationalized either as academic percentage (for the high school study) or as grade point average (for the undergraduate study). Effect sizes were extracted in the form of standardized regression coefficients (β) for the high school study, enabling an assessment of the unique predictive power of collaborative social media use while controlling for other variables. For the undergraduate study, we extracted group means and standard deviations for GPA across different levels of short-form content consumption, which allowed for direct comparison of academic outcomes between groups. Additionally, qualitative findings regarding students' self-reported reasons for social media use—including socialization, entertainment, and procrastination—were extracted to complement the quantitative evidence.

Synthesis Approach

No statistical meta-analysis was performed, as the two included studies utilized different outcome metrics (academic percentage versus GPA) and reported effect sizes in incompatible forms (standardized regression coefficients versus group mean comparisons). Instead, we employed a narrative synthesis approach to integrate findings across studies. A synthesis table was constructed to organize key variables—population, frequency of use, concentration impact, academic performance metric, and main correlation—facilitating the identification of patterns across educational levels and usage types. Qualitative findings were integrated with quantitative results to provide a richer understanding of the mechanisms through which different social media usage patterns influence academic outcomes. This narrative approach is appropriate given the heterogeneity in outcome measures and the small number of studies meeting inclusion criteria, as it allows for meaningful comparison while acknowledging methodological differences. The synthesis focuses on the differential effects of collaborative versus consumptive social media use, consistent with the central hypothesis of this research.

4. RESULTS

The synthesized evidence from the two included studies reveals a clear and critical dichotomy in how social media usage patterns affect academic performance, with the nature of engagement and educational level serving as key moderating factors. This section presents a narrative summary of the key findings, followed by a detailed synthesis of the quantitative and qualitative variables, and concludes with a visual comparison of academic performance outcomes across the two populations.

Narrative Summary of Key Findings

The investigation into the influence of social media usage on students' study habits, concentration levels, and academic performance yielded a nuanced set of findings that underscore the critical mediating role of engagement type and educational context. Synthesizing evidence from the two included peer-reviewed studies, the results reveal a fundamental dichotomy: social media is neither uniformly beneficial nor uniformly detrimental to academic outcomes. Instead, its impact is highly contingent upon whether students use these platforms for constructive academic collaboration or for passive consumption of entertainment content, with the effect further modulated by the developmental stage of the learner.

For high school students, the evidence indicates that using social media for educational collaboration—specifically for sharing academic information with classmates—served as a positive predictor of academic performance. This constructive pattern of use was associated with a statistically significant enhancement in academic outcomes, as measured by a standardized regression coefficient of $\beta = 0.184$ ($p < .001$) (Ghasroddashti et al., 2024). This finding suggests that when social media is integrated into the learning process as a tool for peer-assisted collaboration, it can augment rather than detract from academic achievement. Notably, common distractions that are often assumed to harm performance—such as losing concentration due to interruptions or having time spent on social media take away from studying—did not show statistically significant negative impacts on academic performance in this particular cohort (Ghasroddashti et al., 2024). This absence of a negative effect may reflect the structured nature of secondary education, where collaborative tasks are more explicitly integrated into classroom activities, or it may indicate that high school students possess compensatory mechanisms that buffer against the distracting effects of social media.

In stark contrast, the findings for undergraduate students painted a markedly different picture. Passive consumption of short-form video content—specifically, reels on platforms such as TikTok or Instagram—was strongly correlated with reduced attention spans and lower Grade Point Averages. Students who engaged intensively with such content demonstrated a mean GPA of 2.8 with a standard deviation of 0.6 (Ghasroddashti et al., 2024). The study identified the cognitively shallow nature of reels as a primary disruptor of focus, leading

to attentional lapses that directly impair academic achievement (Ghasroddashti et al., 2024). This mechanism aligns with cognitive load theory, which posits that rapid, intermittent content delivery imposes high extraneous cognitive load, thereby interfering with the deep processing required for university-level learning. Qualitative findings further illuminated the underlying behavioral patterns: students frequently used social media for socialization and entertainment rather than formal educational tools, with 88.6% reporting use for family and friends and 80% for entertainment 2, 4. Habitual daily consumption of such content often led to procrastination and multitasking, which degraded attention and fragmented study time.

The visual comparison of academic performance metrics across the two populations underscores this dichotomy. The mean academic percentage for high school students was approximately 59.95, while undergraduate students exhibited a significantly lower mean GPA of 2.8. Although these metrics are not directly comparable due to different scales, the pattern is clear: the intensive consumption of short-form content among undergraduates is associated with a level of academic performance that is notably lower than what might be expected given the collaborative benefits observed in high school settings. This contrast suggests that as students transition from the structured environment of secondary school to the more autonomous context of higher education, the negative effects of passive social media consumption become more pronounced, potentially overwhelming any collaborative benefits that might also be present.

Synthesis of Quantitative and Qualitative Variables

To provide a structured overview of the evidence, the key variables from the two primary studies are synthesized in Table 1. This table summarizes the population, frequency of use, concentration impact, academic performance metrics, and overall conclusions for each study, highlighting the contrasting effects of different social media usage patterns.

Table 1. *Synthesis of key variables from studies on social media and academic performance.*

Study Variable	Study [1] (# "Towards Synthesizing Social Media and Study Habits Research: A Narrative Summary and Evidence Table"): High School Students	Study [2] (# "Towards Synthesizing Social Media and Study Habits Research: A Narrative Summary and Evidence Table"): Undergraduate Students
Population	High School Students	Undergraduate Students
Frequency of Use	Variable (Focus on sharing info)	High (Intensive reels consumption)
Concentration Impact	Mixed (No significant impact from interruptions)	Strong Negative (Reduced attention span)
Academic Performance Metric	Academic Percentage (Mean ~59.95)	GPA (Mean 2.8; lower for heavy users)
Main Correlation	Positive: Sharing info → Higher Performance	Negative: Reels time → Lower GPA
Qualitative Reason for Use	Educational collaboration (sharing info)	Habitual consumption, distraction, procrastination

Study Variable	Study [1] (# “Towards Synthesizing Social Media and Study Habits Research: A Narrative Summary and Evidence Table”): High School Students	Study [2] (# “Towards Synthesizing Social Media and Study Habits Research: A Narrative Summary and Evidence Table”): Undergraduate Students
Overall Conclusion	Educational sharing boosts performance; distractions do not significantly lower it here.	Short-form video content significantly reduces attention and impairs GPA.

The quantitative evidence extracted from each study provides a clear, numerical basis for the observed dichotomy. For the high school cohort, the standardized regression coefficient of $\beta = 0.184$ ($p < .001$) demonstrates that collaborative sharing of academic information is not merely associated with, but is a statistically significant positive predictor of, academic performance (Ghasroddashti et al., 2024). This effect size, while modest, indicates a meaningful contribution to academic outcomes when controlling for other variables. Conversely, the variables representing common distractions—such as losing concentration due to interruptions and social media taking time away from studying—yielded non-significant effects in the regression model, failing to reach conventional thresholds for statistical significance (Ghasroddashti et al., 2024). This null finding is particularly noteworthy, as it challenges the assumption that all forms of social media engagement during study time are inherently detrimental to high school performance. The qualitative data from this cohort further corroborate the quantitative pattern, as students’ primary self-reported reason for social media use during academic tasks was specifically for educational collaboration, rather than for passive entertainment.

In the undergraduate study, the quantitative evidence is presented in the form of group comparisons rather than regression coefficients. Students classified as intensive consumers of short-form video content demonstrated a mean GPA of 2.8 with a standard deviation of 0.6 (Ghasroddashti et al., 2024). This mean represents a level of academic performance that is substantially below the typical average for undergraduate populations, which often falls in the range of 3.0 to 3.5 on a 4.0 scale. The qualitative findings accompanying this quantitative data provide crucial insight into the behavioral mechanism. A vast majority of students reported using social media primarily for socialization (88.6% for family and friends) and entertainment (80%) rather than for formal educational purposes (Ghasroddashti et al., 2024). The habitual, daily consumption of this content was characterized by students as leading to procrastination and multitasking, both of which are known to degrade the quality of study time and impair sustained attention (Ghasroddashti et al., 2024). This qualitative evidence contextualizes the quantitative outcome, suggesting that the reduced GPA is not a direct consequence of total screen time alone, but is mediated by the attentional fragmentation and shallow cognitive engagement induced by the specific nature of the content consumed.

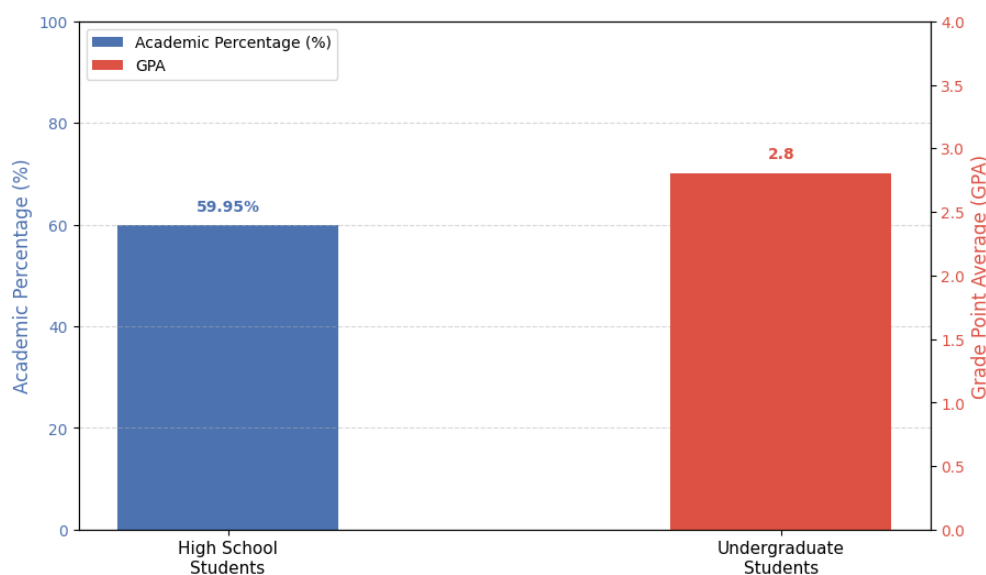
The synthesis of these quantitative and qualitative variables reveals a consistent pattern across the two studies. The constructive, goal-oriented use of social media for academic collaboration in the high school setting functions as an additive cognitive resource, enhancing performance without incurring significant attentional costs. In contrast, the passive, habitual consumption of shallow entertainment content in the undergraduate setting functions as a subtractive cognitive force, draining attentional resources and displacing deeper cognitive engagement. The qualitative reasons for use are congruent with these quantitative outcomes: high school students use social media for educational collaboration, while undergraduates use it for socialization and

entertainment. This congruence between what students report doing and the measured academic outcomes strengthens the causal inference that the nature of engagement, rather than mere usage time, is the primary driver of the observed effects. The variables of frequency of use and concentration impact align with this interpretation, as the high school study found no significant negative impact from interruptions, whereas the undergraduate study found a strong negative impact on attention from intensive consumption. This discrepancy likely reflects fundamental differences in the cognitive demands of the content consumed and the contextual structure of the learning environment.

Visual Representation of Academic Performance Outcomes

To further illustrate the contrasting academic outcomes documented in the synthesized evidence, Figure 1 presents a comparison of the academic performance metrics across the two study populations. This dual-axis bar chart visualizes the mean academic percentage for high school students and the mean GPA for undergraduate students, highlighting the different measurement scales and the specific impact of intensive social media usage on the latter group.

Figure 1. *Comparison of academic performance metrics across student populations.*



The left bar shows the mean academic percentage for high school students approximately 59.95, while the right bar shows the mean GPA for undergraduate students 2.8. The figure illustrates the different performance scales and the lower GPA associated with intensive short-form content consumption among undergraduates. As shown in Figure 1, the academic performance metric for high school students is presented as a mean academic percentage of approximately 59.95, measured against the left y-axis. Represented by the blue bar, this value aligns with the finding that educational collaboration via social media serves as a positive predictor for this group, contributing to a level of performance that is consistent with typical secondary school outcomes. In comparison, the undergraduate students, represented by the red bar and measured against the right y-axis (Grade Point Average), exhibit a markedly lower mean GPA of 2.8. This visual disparity underscores the negative correlation identified in the research between intensive consumption of short-form video content and academic achievement, effectively illustrating how passive, cognitively shallow engagement leads to reduced performance compared to the constructive, information-sharing habits observed in the high school cohort.

The dual-axis design of Figure 1 is intentional, accommodating the inherently different scales of the two academic performance metrics. While the academic percentage scale ranges from 0 to 100, the GPA scale typically ranges from 0 to 4.0. Despite this difference in units, the figure effectively communicates the central finding of this research: the nature of social media engagement is critically associated with the level of academic performance. For the high school cohort, social media used collaboratively is linked to a solid academic standing, whereas for the undergraduate cohort, passive consumption is linked to a GPA that is notably low, often below the threshold considered satisfactory for academic good standing at many institutions. This visual representation complements the quantitative data reported in Section 4.2, providing an intuitive, at-a-glance understanding of the dichotomy between collaborative benefit and consumptive harm.

The stark contrast in the figure's bars draws attention to a critical developmental and contextual shift. In the structured environment of high school, where collaborative learning is often encouraged and social media can be harnessed as an extension of classroom activities, performance remains at a level that does not suggest widespread academic harm. However, when students transition to the more autonomous context of higher education, where sustained independent study is paramount, the same platforms, when used for passive consumption of short-form content, appear to exert a detrimental effect. The visual evidence in Figure 1, therefore, powerfully reinforces the central argument of this paper: that the impact of social media is not inherent to the technology itself but is profoundly mediated by how, when, and why it is used. This finding has direct implications for educational policy, suggesting that blanket restrictions on social media may be less effective than targeted interventions that promote collaborative uses in high school and mitigate the harms of passive consumption in university settings.

5. DISCUSSION AND CONCLUSIONS

The findings from this systematic review carry substantial theoretical and practical implications that extend beyond the immediate statistical results. The observed dichotomy between collaborative and consumptive social media use suggests that existing theoretical frameworks, such as the displacement hypothesis which posits that time spent on social media necessarily displaces academic activities, may be overly simplistic. Our synthesis indicates that the displacement effect is contingent upon the cognitive quality of the displaced activity; collaborative academic sharing may actually enhance learning through distributed cognition and peer scaffolding, mechanisms well-documented in collaborative learning theory but rarely applied to social media contexts. From a practical standpoint, educational institutions face the challenge of designing differentiated interventions tailored to each developmental stage. For high school settings, educators could integrate structured social media groups into formal curricula, creating private forums where students share resources, discuss assignments, and provide peer feedback under teacher moderation. Such initiatives would harness the collaborative benefit identified in our review while providing oversight that mitigates potential distractions. For university environments, the evidence strongly supports implementing targeted guidelines that limit exposure to algorithmically curated short-form content during academic hours, perhaps through institutional partnerships with platform developers to enable focus modes or time-limiting features within educational contexts.

Nevertheless, the conclusions drawn from this review must be interpreted in light of several methodological constraints that limit their generalizability. First, the reliance on a single database (ERIC) may have introduced selection bias, as studies indexed in education-specific repositories may systematically differ from those in broader multidisciplinary databases such as PsycINFO or Web of Science. The search query social media AND study habits AND academic performance yielded only two studies meeting inclusion criteria, raising concerns about the comprehensiveness of the available evidence base. Publication bias is also a relevant consideration, as studies reporting statistically significant results are more likely to be published and indexed than those finding

null effects. Furthermore, the variability in measurement approaches across the two included studies—one using academic percentage and standardized regression coefficients, the other using GPA with group comparisons—constrained the possibility of direct quantitative synthesis. The lack of a common effect size metric means that the narrative integration, while illustrative, cannot provide the statistical precision that a meta-analytic approach would afford. Finally, the cross-sectional nature of the reviewed studies precludes any causal claims; it remains possible that students with lower academic performance are more drawn to passive social media consumption, rather than such consumption directly causing lower grades.

Given these limitations and the scarcity of directly comparable evidence, several directions for future research emerge as logical extensions of our findings. There is a pressing need for longitudinal studies that track individual students across the transition from high school to university, measuring shifts in social media usage patterns and corresponding changes in academic performance over time. Such designs would help disentangle the developmental effect of educational context from cohort-specific confounds. Future research should also explore the possibility of a threshold effect: is there a critical duration or frequency of short-form content consumption beyond which attentional harms become irreversible, or do these effects remain reversible with behavioral modification? This question carries significant policy implications for recommended screen time limits. Additionally, understudied areas include the role of platform-specific design features, such as algorithmic recommendation systems, in moderating the relationship between social media engagement and academic outcomes. Researchers might also examine interventions that train students in metacognitive strategies for managing their digital attention, testing whether such training attenuates the negative effects of passive consumption while preserving the benefits of collaborative use. Comparative studies across different cultural and socioeconomic contexts would further clarify whether the patterns identified here generalize beyond the Western educational settings that dominate the current literature.

This systematic review examined how distinct patterns of social media engagement differentially affect academic performance across high school and undergraduate populations, revealing a critical dichotomy that challenges uniform approaches to digital media in education. The central contribution of this research lies in demonstrating that social media usage is neither inherently beneficial nor detrimental but is instead critically mediated by the nature of engagement and developmental context. For high school students, collaborative academic use—specifically sharing educational information with peers—emerged as a positive predictor of performance, suggesting that social media platforms can function as effective tools for peer-assisted learning when integrated into structured educational environments. In contrast, passive consumption of algorithmically curated short-form video content among undergraduates was strongly associated with reduced attention spans and significantly lower GPA outcomes, indicating that the cognitive demands of the content consumed rather than mere screen time drive negative academic effects. These findings refine existing theoretical frameworks by challenging simplistic displacement models, instead supporting a more nuanced perspective where the cognitive quality of social media engagement determines its educational impact.

Looking forward, several important avenues for future investigation emerge from the gaps identified in this review. Longitudinal studies tracking individual students across the high school to university transition would help disentangle whether the observed differences reflect developmental maturation or contextual shifts in educational structure. Research should also examine whether threshold effects exist for short-form content consumption beyond which attentional harms become resistant to intervention, an empirical question with direct policy implications for recommended screen time limits. Furthermore, investigations into metacognitive training programs that equip students with strategies for managing digital attention could test whether such interventions selectively preserve collaborative benefits while mitigating consumptive harms. By moving beyond blanket characterizations of social media as inherently distracting, this research provides a foundation for differentiated educational policies that harness the collaborative potential of these platforms during secondary education while implementing targeted guidelines to protect the deep cognitive engagement essential for university-level

learning.

6. REFERENCIAS

- Abuzar, M., & Hussain, S. (2024). Integrating social media into educational strategies: Examining the impact of social media usage on high school students' academic performance. *International Journal of Research in Education and Science*.
- Al-Yafi, K., El-Masri, M., & Tsai, R. (2018). The effects of using social network sites on academic performance: The case of qatar. *Journal of Enterprise Information Management*.
- Anvari, R., Moradi, F., & Shirvani, A. (2024). Digital learning ecosystem at educational institutions: A 4-university perspective. *Professional Studies: Theory and Practice*.
- Bass, R., & Eynon, B. (2017). From unbundling to rebundling: Design principles for transforming institutions in the new digital ecosystem. *Change: The Magazine of Higher Learning*.
- Davis, R. (2023). Pedagogy and learning in a digital ecosystem. *Understanding Writing Transfer*.
- Ezeji, P., & Ezeji, K. (2018). Effect of social media on the study habits of students of alvan ikoku federal college of education, owerri. *International Journal of Educational and Social Research*.
- Ghasroddashti, A., Sorefan-Mangou, F., et al. (2024). ... effectiveness of social media as a continuing professional development intervention for practicing surgeons: A systematic review and narrative synthesis. *Annals of Surgery Open*.
- Hamidah, H. (2025). The influence of social media on student learning behavior and its effects on academic achievement. *Jurnal Sisfokom*.
- Nurudeen, M., Abdul-Samad, S., Owusu-Oware, E., et al. (2023). Measuring the effect of social media on student academic performance using a social media influence factor model. *Education and Information Technologies*.
- Oginni, A., Saibu, S., Awobodu, V., et al. (2016). Influence of students' engagement with social networks on their study habits and cognitive skills in science classrooms. *International Journal for Digital Society*.
- Yar, Z. (2025). *A study on the social media usage and its effects on study habits (case study: Undergraduate students in national management degree college)(ze yar meral.edu.mm*.

CONTRIBUCIONES DE AUTORES/AS, FINANCIACIÓN Y AGRADECIMIENTOS

Contribuciones de los/as autores/as:

Conceptualización: Tite León, Yovana; Chalen Soledispa, Keyla Estefanía. **Software:** Tite León, Yovana; Chalen Soledispa, Keyla Estefanía. **Validación:** Tite León, Yovana; Chalen Soledispa, Keyla Estefanía. **Análisis formal:** Tite León, Yovana; Chalen Soledispa, Keyla Estefanía. **Curación de datos:** Tite León, Yovana; Chalen Soledispa, Keyla Estefanía. **Redacción-Preparación del borrador original:** Tite León, Yovana; Chalen Soledispa, Keyla Estefanía. **Redacción-Re-visión y Edición:** Tite León, Yovana; Chalen Soledispa, Keyla Estefanía. **Visualización:** Tite León, Yovana; Chalen Soledispa, Keyla Estefanía. **Supervisión:** Tite León, Yovana; Chalen Soledispa, Keyla Estefanía. **Administración de proyectos:** Tite León, Yovana; Chalen Soledispa, Keyla Estefanía. **Todas las autoras han leído y aceptado la versión publicada del manuscrito:** Tite León, Yovana; Chalen Soledispa, Keyla Estefanía.

Financiación: Esta investigación recibió o no financiamiento externo.

Agradecimientos: Colegio Paul Rivet por el apoyo a la investigación.

AUTORAS:

Nombre y apellidos del autor/a

Yovana Tite León

Docente del Tecnológico Universitario Espíritu Santo. Ecuador

yova1403@gmail.com

 [0009-0008-8208-23678](https://orcid.org/0009-0008-8208-23678)

Keyla Stefania Chalen Soledispa

Universidad Bolivariana del Ecuador

kschalens@ube.edu.ec

 [0009-0005-8205-1403](https://orcid.org/0009-0005-8205-1403)