

Digital Divide: Senior High School STEM Students' Perceptions of School Policies Addressing Digital Distraction

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Date Submitted:
January 29, 2026

Date Accepted:
February 27, 2026

Date Published:
March 28, 2026

DOI:
10.5281/zenodo.19288502

ABSTRACT

This descriptive-narrative qualitative paper explores the perceptions of Senior High School (SHS) STEM students regarding the digital divide and school policies addressing digital distraction at Lipa Adventist Academy (LAA). The study utilizes semi-structured interviews and documentary analysis to address a significant research gap in how students with varying levels of technology access—specifically dormitory versus non-dormitory students—perceive institutional regulations. Grounded in Jan van Dijk's Resources and Appropriation Theory, the research moves beyond a binary definition of access to examine motivational, material, skills,

and usage access. The findings reveal a persistent tension between high academic requirements for digital engagement in the STEM strand and restrictive school policies that limit device usage. Participants emphasize that technology is essential for research, assignments, and school requirements, yet institutional prohibitions often create barriers to completing these tasks efficiently. Furthermore, the study identifies significant inconsistencies in policy enforcement among faculty, leading to confusion and a sense of unfairness among the student body. The results indicate that while students acknowledge the effectiveness of policies in reducing off-task behaviors, they advocate for clearer guidelines and greater flexibility for academic purposes. These findings serve as a foundation for educational stakeholders to develop more balanced policies that support both academic discipline and equitable technology access. Ultimately, the study underscores the importance of fostering digital inclusion to enhance the academic experiences of all learners in a technology-dependent landscape.

Keywords: *Digital Divide, Digital Distraction, STEM Students, School Policies, Policy Fairness*

INTRODUCTION

In the contemporary educational landscape, digital media has become both a gateway to learning and a source of constant distraction. Schuett, K.C. (2024) argues that digital technology is a major part of education—assisting students in research, problem-solving, and communication—the same devices can lead to reduced attention and lower academic focus if left unchecked (Flanigan & Babchuk, 2020). Within the Philippines, students face the unique challenge of adhering to strict school policies on device usage while relying heavily on technology to fulfill demanding academic requirements.

At Lipa Adventist Academy (LAA), there remains a lack of understanding regarding how students actually feel about rules that limit digital media use, particularly when access to technology varies significantly between dormitory and non-dormitory residents. This study focuses on this "digital divide," exploring how differences in access, resources, and digital skills shape students' perceptions of the fairness and efficacy of school policies. Previous research offers mixed results, with some suggesting that strict policies improve focus, while others argue that they block essential learning opportunities.

The inquiry is grounded in the Resources and Appropriation Theory Digital Divide Theory proposed by JanvanDijk (2020), which identifies four stages of access: motivational, material, skills, and usage. This theoretical framework allows the study to treat digital distraction not merely as a lack of discipline, but as a result of unequal digital opportunities and structural inequalities. By focusing on structure rather than just behavior, the research clarifies why certain school policies may unintentionally disadvantage students who rely on technology to execute academic tasks.

By documenting the lived experiences of SHS STEM students, this research aims to provide actionable insights for the school's Handbook Review Committee. Understanding the tension between academic requirements and restrictive policies is essential for crafting guidelines that are both fair and realistic. Ultimately, the study seeks to amplify student voices to ensure that digital regulation supports learning engagement rather than limiting the potential of learners who are increasingly dependent on digital tools.

METHODS

Research Design

The study utilized a descriptive-narrative qualitative research approach to observe and describe how senior high school STEM students at Lipa Adventist Academy balance the digital divide and school policies. This design is ideal for investigating detailed accounts of student perceptions, allowing for a comprehensive knowledge of the subject matter being studied (McCombes, 2023). The qualitative descriptive-narrative approach is best for this study as it aims to chronicle and describe the lived experiences of both dormitory and non-dormitory senior high school STEM students. This approach enabled the researchers to gather in-depth data from students' narratives, providing specific insights into how they balance the benefits of digital use with institutional restrictions.

Tradition of Inquiry and Data Generation

This study conforms to the practices of descriptive-narrative inquiry qualitative research, which explores and describes the experiences and personal accounts to identify unique perspectives. This research methodology emphasizes collecting detailed and ample data from participants, permitting the researchers to study how students perceive and respond to school policies addressing digital distractions in their natural environment. The narrative inquiry approach facilitated the collection of personal experiences, providing awareness of students' difficulties, strategies, and thoughts regarding digital distractions in the learning environment (Politz, 2025). To process the generated data, content analysis and narrative analysis were utilized to address the research questions and ensure the findings were specific to the content of the institution under study.

Participants and Sampling

The data were purposively collected from four participants identified by codes for analysis: Participant A (PA), Participant B (PB), Participant C (PC), and Participant D (PD). Selection was based on specific inclusion criteria: (1) being a grade 12 STEM student at Lipa Adventist Academy; (2) being required to attend junior high school at the same academy; (3) being 17 years of age or older; and (4) maintaining status as an academic achiever for four or more years. To ensure valid and reliable data, the researchers utilized the bracketing technique to minimize the influence of their own preconceptions and institutional acquaintance.

RESULTS AND DISCUSSION

Tension Between Academic Requirements and Restrictive Policies

Participants consistently identified a significant tension between the academic necessity for technology and restrictive school policies. Narrative extracts emphasize that technology is essential for STEM tasks such as research, reporting, and assignments. Participant A noted, "*We use technology sa STEM class pag magre-reporting kami... or need namin mag research,*" while Participant D shared that output requirements often demand online searching, leading to delays when devices are restricted. This conflict aligns with George (2024), who found that students who rely on gadgets for academic pressure often experience increased stress.

Implementation and Consistency of School Policies

The results highlight that students perceive policy enforcement as inconsistent, which creates confusion and a sense of unfairness. Participant A stated that rules are enforced strictly at the start of the school year but become lenient over time. Furthermore, participants noted teacher-specific variances, where some faculty members permit gadget use for academics while others confiscate devices. This lack of clarity is supported by Mondal (2024), who emphasizes that the fairness of policies significantly influences the daily student experience.

Perception of Students Regarding the Handbook

While some participants admitted to disobedience—such as Participant D, who shared, "*As someone na pasaway, ginagamit ko sya patago*"—many still recognized the underlying effectiveness of the rules. Participant B expressed that the rules help students focus and minimize distractions during class. However, there is a strong consensus on the need for clearer guidelines within the handbook. Participant A suggested that the handbook should explicitly define what is allowed and prohibited to ensure students are not left in a helpless situation when requirements conflict with rules.

Proposed Policy Improvements

Participants suggested several improvements, focusing on flexibility for academic use and stakeholder communication. There is a desire for better alignment between teachers and deans to ensure that tasks requiring digital access are supported by policy. Additionally, Participant B emphasized the importance of balancing academics with social life, stating that deans should understand that students need to enjoy their school experience. These insights echo Nkomo et al. (2021), suggesting that inconsistent policies lead to stress and disengagement.

CONCLUSION

The study concludes that a significant structural-academic disconnect exists within the STEM program at Lipa Adventist Academy. While the institution enforces a restricted gadget policy to mitigate digital distraction, the STEM curriculum inherently demands high levels of digital engagement for research and technical outputs. This creates a paradoxical environment where students are academically required to be digitally active but institutionally restricted from doing so, leading to heightened stress and a perceived "digital barrier" for those without consistent off-campus access.

Furthermore, the digital divide is exacerbated not by a lack of devices, but by inconsistent policy governance. The variation in how different faculty members interpret and enforce rules creates a lottery of access, where a student's ability to complete an assignment depends more on the teacher's leniency than on the student's academic need. Ultimately, while students acknowledge the benefit of reduced distractions, the current one-size-fits-all approach to digital regulation fails to account for the specialized requirements of the STEM strand and the varying digital realities of the student body.

RECOMMENDATIONS

Based on the experiences of the participants, the following strategic recommendations are proposed for effective implementation of rules;

First, educational institutions should transition from a blanket prohibition of devices to a model of Purpose-Based Digital Governance. Recognizing the disconnect where modern curricula require digital

engagement, schools should implement a Contextual Usage Policy. This includes the designation of Digital Green Zones or specific periods where device use is pre-authorized for research and academic collaboration. By shifting toward project-specific authorization, administrations can resolve the paradox where students are academically required to be digitally active but institutionally restricted, thereby reducing student stress and ensuring that students with limited off-campus access are not unfairly disadvantaged.

Second, school administrations must Standardize Policy Enforcement Protocols to eliminate the confusion created by inconsistent implementation across faculty. When student access is dependent on the specific leniency of an individual teacher rather than a unified standard, it undermines the perceived fairness of the institution. To address this, schools should conduct synchronized orientation sessions for all staff to ensure a uniform interpretation of student handbooks. By clearly defining the distinction between "educational scholarship" and "distraction-based usage" in official guidelines, institutions can provide a more transparent and predictable academic environment for all learners.

Third, institutions should prioritize Bridging the Access Divide through Managed Resources while fostering Digital Self-Regulation. Schools should ensure that those with restricted personal device freedom have access to extended laboratory hours or Digital Study Halls to ensure they can meet the same academic milestones as their peers. Moving beyond purely punitive measures like confiscation, the curriculum should incorporate modules on digital literacy and time management. By empowering students with the skills for responsible digital citizenship, the institution shifts the culture from one of external monitoring to one of internal discipline and academic maturity.

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