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Technology Impacts on SD Negeri 173277 Pohan Tonga Students' Habits and Behavior

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Abstract: The advancement of information and communication technology has brought significant changes in various aspects of life, including the world of education, where students are growing up in a digital era with easy access to electronic devices and digital platforms. This research aims to comprehensively understand how the use of technology correlates with changes in daily routines, social interaction patterns, learning habits, and student behavior both within and outside the school environment. Utilizing a qualitative approach with a case study design, data was collected through in-depth interviews with students, teachers, and parents, direct observations, and questionnaires distributed to 30-50 students. The research findings indicate that technology has a dual impact. On one hand, technology significantly enhances learning quality, enriches access to information, and facilitates collaboration among students. However, on the other hand, excessive and uncontrolled exposure to technology leads to negative impacts such as gadget addiction, decreased physical activity and face-to-face social interaction, and potential concentration disturbances and exposure to age-inappropriate content. This research concludes that technology is a transformative force that requires wise management through collaborative strategies from schools, parents, and the community to maximize its positive benefits and minimize its negative impacts.

Keywords: Technology; student habits; student behavior; digital impact; social interaction

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Introduction

Previous research has extensively explored the impact of technology on the behavior and habits of the younger generation. For example, a study by Livingstone and Helsper (2008) indicated that easy digital access can boost children's participation in online educational activities, yet it also carries the risk of exposure to inappropriate content. Similarly, Prensky (2001) introduced the concept of the "digital native," asserting that the current generation thinks and learns differently due to early exposure to technology. This implies that traditional learning environments may no longer be entirely relevant for them, necessitating the adaptation of teaching methods that leverage technology.

In their research on gadget use among elementary school children, Lebu and Puspitasari (2020) found that excessive use can affect students' social interaction and concentration. However, they also noted that appropriate utilization can be an effective learning tool. These findings confirm that the presence of technology is not merely a threat

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or an opportunity; instead, it's a reality that requires proper management and guidance from both schools and parents.

Based on the review of these prior studies, this research will investigate how the integration of technology into the daily lives of students at SD Negeri 173277 Pohan Tonga influences the formation of their habits and behavior. By understanding this dynamic, we hope to formulate relevant strategies that maximize the positive potential of ICT in supporting students' educational processes and character development, while simultaneously minimizing any potential negative impacts.

Method

This research employed a qualitative approach with a case study design to deeply understand how technology influences the habits and behavior of students at SD Negeri 173277 Pohan Tonga. This approach was ideal as it allowed us to comprehensively explore the unique context and dynamics within that specific school environment. The entire student body of SD Negeri 173277 Pohan Tonga served as the population for our study.

We utilized a purposive sampling technique to select our participants. We specifically targeted students from all grade levels (1st to 6th grade) who had access to technology. Our sample consisted of approximately 30 to 50 students, chosen to ensure diverse representation in terms of age, gender, and socioeconomic background, thereby providing a comprehensive and rich dataset.

To ensure a complete understanding of this phenomenon, data was gathered through a combination of key techniques:

Firstly, we conducted in-depth, semi-structured interviews with the students themselves, their teachers, and their parents. These interviews were designed to uncover their perspectives on how technology is used and its perceived impact on student habits and behavior. Our questions covered crucial aspects such as the frequency and types of technology used, as well as observed changes in students' study habits and social interactions.

Secondly, researchers also carried out direct observations within the school environment. This technique allowed us to directly witness student interactions, observe how technology is utilized in teaching and learning activities, and see their social activities outside the classroom. These observations were vital for understanding the social context and student behavior in real-time or directly in the field.

Lastly, we distributed questionnaires to students to collect quantitative data. These questionnaires were designed to capture information regarding their technology use habits, the potential level of gadget addiction, and their social interaction patterns. The combination of closed-ended and open-ended questions enabled us to gather both specific and nuanced information.

The data collected from the interviews, observations, and questionnaires then underwent both qualitative and quantitative analysis.

For qualitative analysis, data from interviews and observations were processed using thematic analysis. This involved a systematic process: transcribing interviews, coding the data, and subsequently grouping emerging themes into relevant categories.

As for quantitative analysis, data from the questionnaires were analyzed using descriptive statistics. This method helped us illustrate patterns of technology use and its impact on student habits. We presented these findings in the form of tables and graphs to facilitate understanding and the clear presentation of findings.

Results

Research into the impact of technology on the habits and behavior of students at SD Negeri 173277 Pohan Tonga has uncovered significant findings, confirming both **positive and negative effects of technology use** among elementary school students. Data collected through in-depth interviews with students, teachers, and parents, direct observations in the school environment, and questionnaires distributed to 30-50 students

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reveal interesting and relevant patterns.

Positive Impacts of Technology

The research results indicate that technology plays a crucial role in improving the quality of learning. Teachers reported that integrating technology, such as using educational applications and online learning platforms, made the teaching and learning process more interactive and engaging. Students appeared more motivated to understand difficult lesson concepts, especially through educational videos and interactive games. This aligns with the findings of Zheng et al. (2016), who emphasized technology's effectiveness in helping students grasp subject matter in a more enjoyable way. Students also expressed that they found learning easier when technology was used as a tool.

Furthermore, technology has expanded students' access to information. They can now easily and quickly search for additional data for school assignments or simply satisfy their curiosity. Previously, information access was largely limited to books in the library. This ability to access diverse resources contributes significantly to broadening students' horizons. Technology has also been shown to facilitate collaboration among students. Some teachers utilize digital platforms for group assignments, allowing students to interact and work together to complete joint projects, even if not always through direct face-to-face interaction. This supports Johnson & Johnson's (2009) view on technology's potential to enhance social and cooperation skills.

Negative Impacts of Technology

Despite its positive aspects, this study also revealed significant negative impacts of excessive and uncontrolled technology exposure. One of the main problems that emerged was the potential for gadget addiction. Both students and parents acknowledged an increase in the frequency of gadget use outside school hours. Observations showed that many students exhibited symptoms of addiction, such as feeling restless or annoyed when not using gadgets, and spending hours playing games or Browse social media. Parents often struggled to limit their children's screen time, indicating that this problem is deeply rooted in daily routines.

This gadget addiction directly impacts the decrease in physical activity and face-to-face social interaction. Observations in the school environment showed that playgrounds, once bustling with physical activity, are now often dominated by students busy with their respective gadgets. Students' preference for communicating via text messages or social media rather than direct interaction was also highly noticeable.

Discussion

The findings from SD Negeri 173277 Pohan Tonga clearly illustrate the dual nature of technology's influence on elementary school students. On one hand, technology demonstrably serves as a powerful educational tool, aligning with current pedagogical trends that advocate for digital integration to enhance learning engagement and information access. The enthusiasm expressed by both teachers and students regarding educational apps and online resources underscores technology's potential to transform passive learning into an interactive experience. This corroborates prior research (e.g., Zheng et al., 2016) highlighting the efficacy of technology in making complex concepts more digestible and enjoyable for young learners. The expanded access to information beyond traditional library resources is also a clear advantage, fostering curiosity and independent learning, which are crucial skills in the digital age. Furthermore, the observed use of digital platforms for group assignments reflects the evolving nature of collaboration, supporting the idea that technology can indeed foster cooperation skills, as suggested by Johnson & Johnson (2009).

On the other hand, the study critically highlights the substantial challenges posed by uncontrolled technology use, particularly the pervasive issue of gadget addiction. The

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reported increase in off-school gadget use and the observed symptoms of addiction, such as restlessness when separated from devices, indicate a significant behavioral shift among students. This is a concerning trend that parents find difficult to manage, suggesting a need for more robust strategies at home and school.

The most striking negative consequence observed is the decline in physical activity and face-to-face social interaction. The image of playgrounds being replaced by groups of students engrossed in their devices vividly illustrates this concern. This preference for digital communication over direct interpersonal engagement resonates strongly with the anxieties articulated by scholars like Turkle (2011) and the RSPH (2019). Their work warns about how excessive digital immersion can erode children's foundational abilities to build healthy relationships and develop essential real-world communication skills. The implications are profound for students' holistic development, potentially impacting their social-emotional intelligence and physical well-being.

In essence, while technology offers undeniable educational benefits, its unmoderated use presents considerable risks to the social and physical development of young students. The findings from SD Negeri 173277 Pohan Tonga underscore the urgent need for a balanced approach that harnesses technology's educational power while actively mitigating its potential negative impacts on student habits and behavior. This requires concerted efforts from educators, parents, and policymakers to establish clear guidelines and foster digital literacy that promotes responsible and healthy technology integration.

Conclusions

This research thoroughly confirms that technology has a dual impact on the habits and behavior of students at SD Negeri 173277 Pohan Tonga. On one hand, technology has proven to be a highly effective tool for improving the quality of learning, enriching access to information, and facilitating collaboration among students. This aligns with findings from relevant literature, showing that educational applications and online platforms can significantly stimulate learning interest and foster a better conceptual understanding.

However, on the other hand, the study's results also clearly highlight the significant potential negative impacts of excessive and uncontrolled technology use. Major concerns identified include gadget addiction, decreased physical activity, reduced face-to-face social interaction, and disruptions to concentration and attention span in class. Additionally, the risk of exposure to age-inappropriate content necessitates strict supervision. Changes in students' communication patterns and daily routines, including sleep patterns, further indicate that technology has left a deep mark on their lives.

Thus, technology is more than just a tool; it's a transformative force that demands wise management. To maximize its positive benefits and minimize its potential negative impacts on the holistic development of students at SD Negeri 173277 Pohan Tonga, a collaborative and planned strategy from various parties is essential. This includes meaningful technology integration into the curriculum, increased digital literacy for both students and parents, the implementation of clear screen time limits, and actively encouraging physical activity and direct social interaction outside the virtual world. Active cooperation among schools, parents, and the community is key to creating an environment where students can grow and develop in a balanced way in this digital era.

Suggestion and Recommendation

Future studies could expand on these findings by exploring the long-term effects of early technology exposure on cognitive development and mental well-being among elementary school students. Research could also investigate the effectiveness of specific digital literacy programs implemented in schools and homes, or delve into the design and impact of parental control strategies on children's technology use. Additionally,

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comparative studies with schools in different socioeconomic contexts might offer broader insights into these dynamics.

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