



Impact of Screen Time on the Health of School Students

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Abstract: The pervasive use of digital devices has brought the issue of screen time into sharp focus, raising significant concerns about its impact on health. As screens become an integral part of daily life—ranging from smartphones and tablets to computers and televisions—understanding their effects is crucial. Prolonged screen time has been linked to various physical and mental health issues, including eye strain, sleep disturbances, and increased risk of obesity, as well as anxiety and depression. This research aims to explore the multifaceted effects of screen time on health, highlighting the importance of balanced usage to mitigate adverse outcomes. Through a comprehensive review of existing literature, this study seeks to provide insights into the complex relationship between screen time and overall well-being. The researcher utilised a descriptive research design with a survey approach to carry out the study. The study population included IXth grade students from the SSC board, with a sample of 56 students from Mumbai out of which 34 were girls and 24 were boys. Data collection was done through non-probability sampling, specifically using convenience sampling. The researcher created a rating scale in the format of a 4-point Likert scale, consisted of 17 items focusing on seven dimensions of health. The rating scale encompassed inquiries pertaining to physical health, i.e., the impact of screen time on the physical, mental, emotional, academic, social, spiritual and family health of students. Descriptive analysis, including graphical representation, was used to interpret the data. The finding of the study revealed the fact the screen time is associated with the health of the students.

Key words – Screen time, Health

INTRODUCTION

In an era dominated by digital technology, the pervasive influence of screens on the lives of adolescents has sparked concerns regarding its impact on their overall well-being. The omnipresence of screens, ranging from smartphones to computers, has dramatically altered the lifestyle patterns of students. In contemporary society, where digital technology permeates every facet of life, understanding the implications of excessive screen exposure is imperative, especially in the context of adolescent development and education. Firstly, the prevalence of screen-based activities among adolescents has surged in recent years, with smartphones, computers, and other digital devices becoming integral components of daily life. Consequently, concerns regarding the potential adverse effects on various dimensions of health have escalated, necessitating empirical investigation and intervention. Secondly, Maharashtra's educational landscape reflects a diverse array of socio-cultural dynamics that intersect with adolescents' screen usage patterns. The unique amalgamation of traditional values, familial expectations, academic pressures, and technological advancements underscores the need for a localised study to discern the nuanced effects of screen time on health outcomes within this specific context. Moreover, existing research on the impact of screen time often lacks specificity regarding the health dimensions under scrutiny. By focusing on physical, mental, academic, emotional, social, spiritual, and family health, this study aims to provide a comprehensive understanding of the multifaceted effects of screen exposure on adolescents' well-being. Through this study, the researcher aspires to contribute empirical evidence that informs educational stakeholders, policymakers, parents, and students alike, thereby fostering informed decisions and interventions to promote holistic well-being amidst the digital age. By unravelling the complexities of screen-time effects within the specific socio-cultural milieu of Maharashtra's educational system, this endeavours to catalyse dialogue, awareness, and proactive measures aimed at nurturing healthier screen habits and, ultimately, flourishing lives among the students.

LITERATURE REVIEW

Devi, Khumukcham & Singh, Sudhakar (2023) studied 'The hazards of excessive screen time: Impacts on physical health, mental health, and overall well-being.' The study concluded that excessive screen time can detrimentally affect overall well-being, particularly in terms of social connections and cognitive development. John, Reebu & Pokale, Aarati & Chutke, Amruta & Narula, Arvinder & Shinde, Supriya & Deshmukh, Rupeshkumar (2024) studied 'Prevalence of excess screen time among secondary school children in rural India.' The study revealed the prevalence of excess screen time

among secondary school students to be 83.2%, with mobile phones being the most commonly used device (98.9%). A significant association was observed between excess screen time and inadequate sleep. The study highlighted a high prevalence of excess screen time among rural school-going children in India. Begum, Farzana & Sayed, Suheir & Almalki, Mohammed & Ahmed, Rania & El-slamoni (2022) studied 'Time Spent on Digital Screen and its Impact on Health and Academic Performance of Youth.' Over 50% of participants acknowledge that their screen media usage affects various aspects of their lives, including neglecting daily activities, experiencing sleep disturbances, declining academic performance, and causing concern for their families. Significant associations were observed between daily screen time and physical well-being indicators such as BMI, headaches, and food indigestion, as well as psychological well-being markers like feelings of depression, low mood, and loneliness. Social well-being markers such as spending time with family, interacting with friends or relatives and academic performance indicators like grades achieved in recent exams also showed highly significant associations with daily screen time among Saudi youth. Camerini, Anne-Linda & Albanese, Emiliano & Marciano, Laura, (2022) studied 'The impact of screen time and green time on mental health in children and adolescents during the COVID-19 pandemic.' Results of the study indicated that, at the between-person level, screen time poses a risk factor while green time acts as a protective factor for mental health.

NEED OF THE STUDY

The need for this study arises from a growing recognition of the profound impact that screen time exerts on the health and well-being of adolescents. Recognizing the potential ramifications of excessive screen time, this study endeavours to investigate the multifaceted effects of screen exposure on the health dimensions of students. Amidst the clamour of academic pursuits, extracurricular activities, and burgeoning social networks, the allure of screens often becomes an inextricable aspect of adolescent life. However, the consequential implications on physical, mental, academic, emotional, social, spiritual, and familial well-being remain underexplored within the unique context of Maharashtra's educational landscape. This study aims to illuminate the intricate interplay between screen time and various dimensions of health among students. Furthermore, while anecdotal evidence and media reports abound regarding the detrimental effects of excessive screen time, empirical research within the State Board of Maharashtra remains scarce. By bridging this gap, this study seeks to generate evidence-based insights that inform policy formulation, educational practices, parental guidance, and student awareness initiatives tailored to the unique socio-cultural context of Maharashtra. Ultimately, the need for this study stems from a collective responsibility to safeguard the health and holistic development of students amidst the pervasive influence of screens. By elucidating the complex interplay between screen time and various dimensions of health, this research endeavours to empower stakeholders with knowledge, resources, and strategies to foster a balanced and thriving adolescent population in Maharashtra's educational ecosystem.

STATEMENT OF PROBLEM

A study of the impact of screen time on health in standard IX students of State Board of Maharashtra.

AIM OF THE STUDY

To study the impact of screen time on health in standard IX students of State Board of Maharashtra.

OPERATIONAL DEFINITION:

- **Screen Time** can be described as the time spent by students viewing television, computer, laptops, mobile phones, smartphones, electronic games unit, hand-held devices or other visual devices.
- **Health** is a state of complete physical, mental, academic, familial, emotional, social and spiritual well-being of a student.

OBJECTIVES OF THE STUDY

- To study the impact of screen time on physical health in class IXth students.
- To study the impact of screen time on mental health in class IXth students.
- To study the impact of screen time on academic health in class IXth students.
- To study the impact of screen time on social health in class IXth students.
- To study the impact of screen time on spiritual health in class IXth students.
- To study the impact of screen time on family health in class IXth students.
- To study the impact of screen time on emotional health in class IXth students.
- To study the impact of screen time on the overall health in class IXth students.

RESEARCH METHODOLOGY

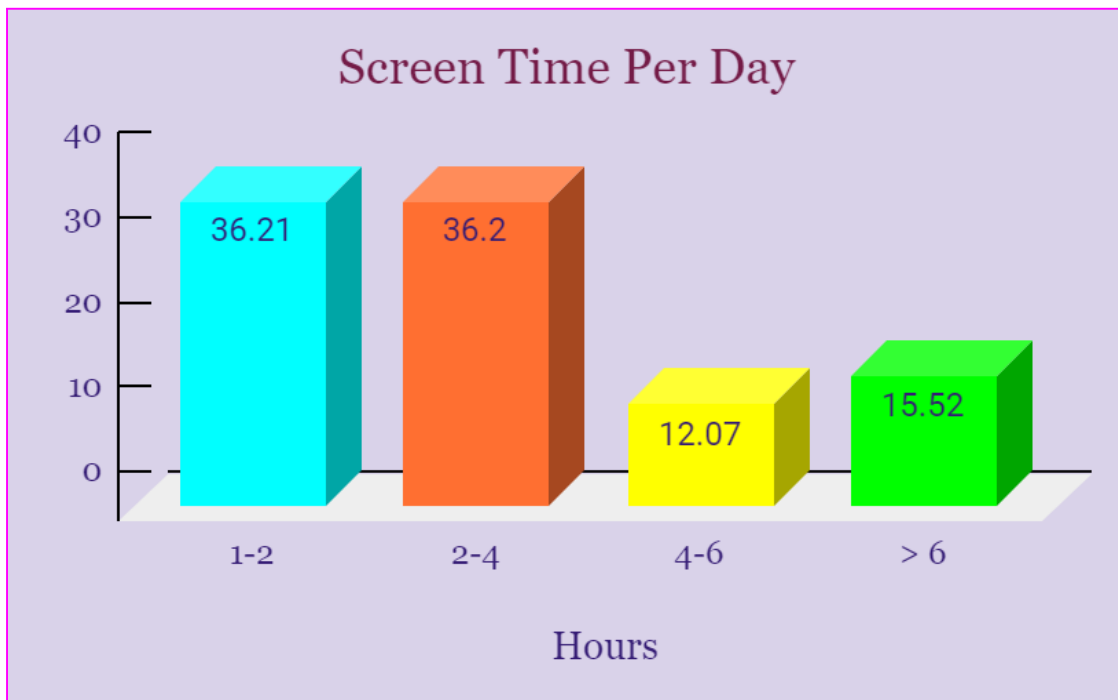
The researcher utilised a descriptive research design with a survey approach to carry out the study. The study population included IXth grade students from the SSC board, with a sample of 56 students from Mumbai out of which 34 were girls and 24 were boys. Data collection was done through non-probability sampling, specifically using convenience sampling. The researcher created a rating scale in the format of a 4-point Likert scale, consisted of 17 items focusing on seven dimensions of health. The rating scale encompassed inquiries pertaining to physical health, encompassing sedentary behaviour and its implications; mental health, exploring psychological well-being amidst digital engagement; academic health, scrutinising the impact on scholastic performance; emotional health, delving into affective states influenced by

screen interactions; social health, examining the dynamics of interpersonal relationships mediated by digital platforms; spiritual health, considering existential reflections amidst a technologically saturated environment; and family health, assessing familial dynamics in the context of screen usage. Descriptive analysis, including graphical representation, was used to interpret the data.

DATA ANALYSIS

Screen time per day	How many hours per day do you typically spend using electronic devices such as smartphones, tablets, computers, or watching TV?
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Graph 4.1: Graph showing the percentage data of screen time per day

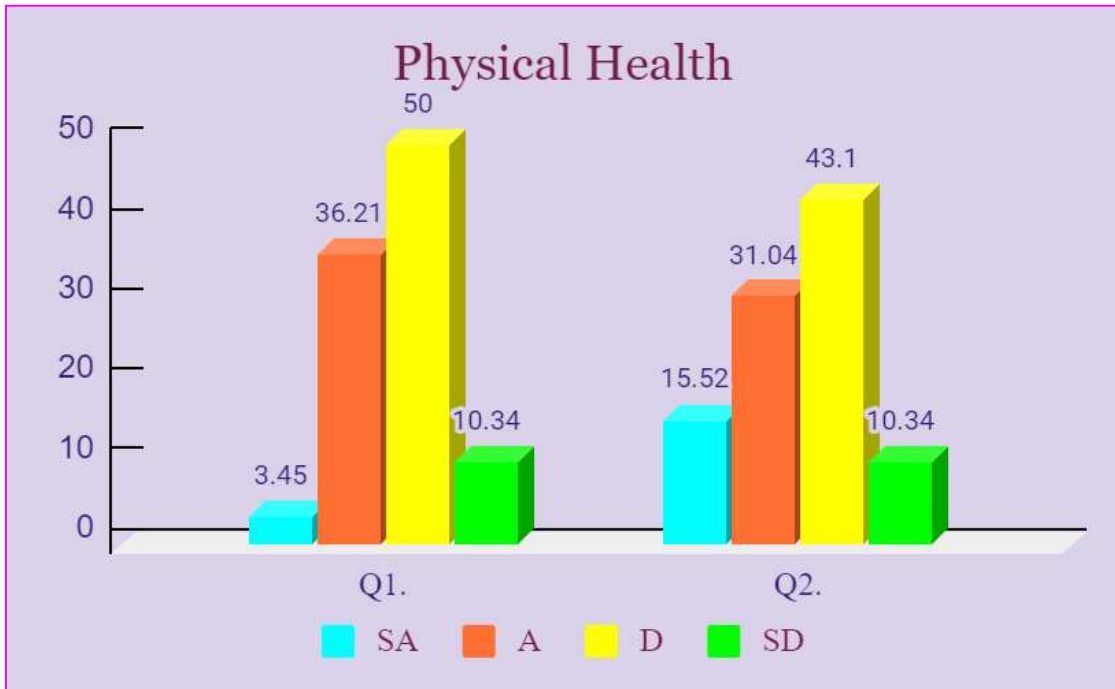


Interpretation:

For the general question, the majority of students have selected 1-2 and 2-4 hours of screen time exposure. This shows that the majority of students use electronic devices responsibly and do not expose themselves to the screen for a prolonged period of time.

Physical Health	I experience physical discomfort such as eye strain, headaches, or neck pain after prolonged screen use.
	I spend more time on screens than engaging in physical activities or exercise.

Graph 4.2: Graph showing the percentage data of the sub-dimension physical health



Interpretation:

From the above graphical representation of the data, it is evident that the majority of the students are not facing physical health related issues due to prolonged screen time exposure, because they use electronic devices responsibly.

Mental Health	My mood or overall mental well-being is negatively affected after extended periods of screen use.
	I find it difficult to concentrate or focus on tasks after spending time on screens.

Graph 4.3: Graph showing the percentage data of the sub-dimension mental health

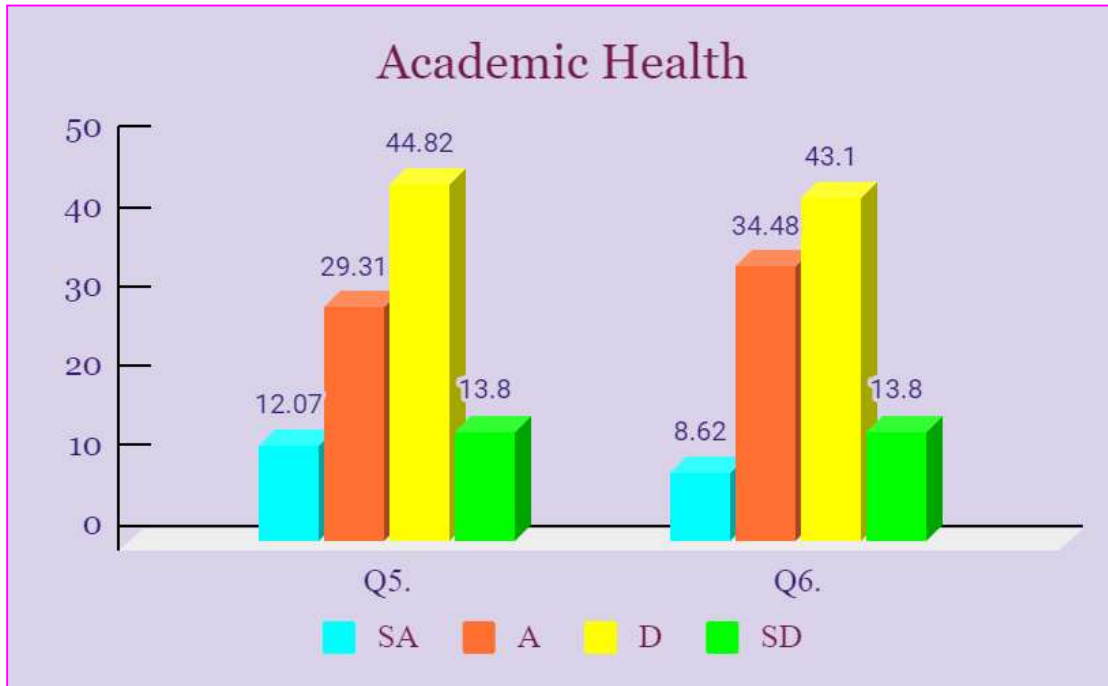


Interpretation:

From the above graphical representation of the data, it is evident that most of the students are not facing mental health related issues due to prolonged screen time exposure, because they use electronic devices responsibly.

Academic Health	My screen time negatively impacts my ability to study or complete academic assignments effectively.
	I often procrastinate on academic tasks due to excessive screen use.

Graph 4.4: Graph showing the percentage data of the sub-dimension academic health

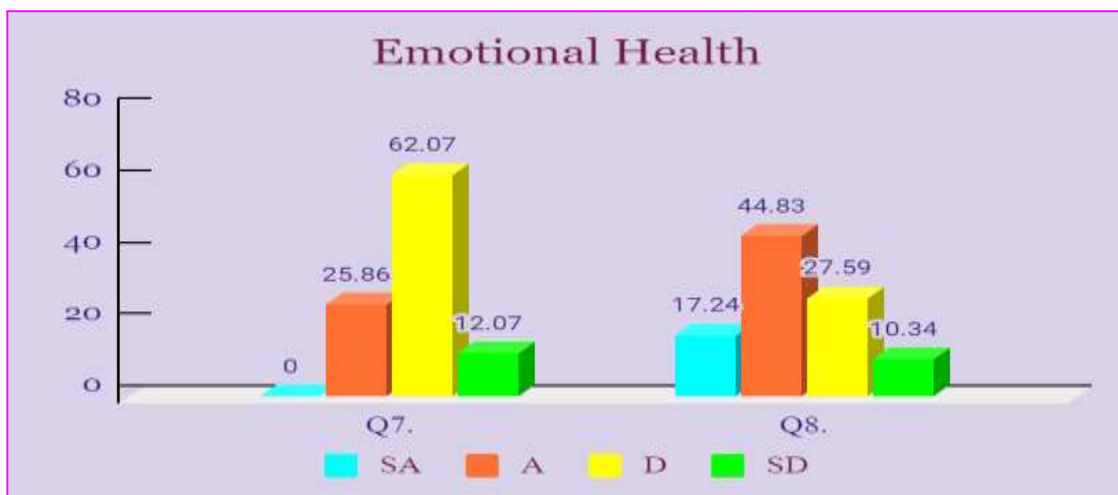


Interpretation:

From the above graphical representation of the data, it is evident that most of the students are not facing academic health related issues due to prolonged screen time exposure, because they use electronic devices responsibly.

Emotional Health	I feel more disconnected or isolated from others after spending time on screens.
	I use screens as a way to escape or avoid dealing with difficult emotions or situations.

Graph 4.5: Graph showing the percentage data of the sub-dimension emotional health

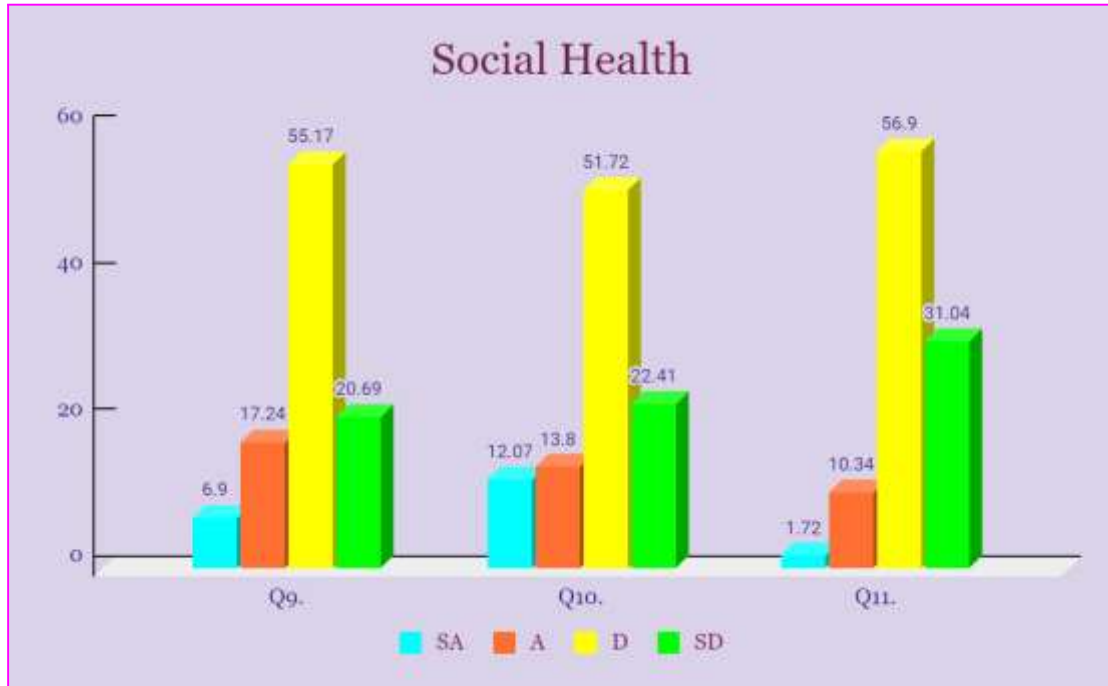


Interpretation:

From the above graphical representation of the data, it is evident that most of the students are facing some emotional health related issues due to prolonged screen time exposure.

Social Health	My screen time negatively impacts my ability to engage in face-to-face interactions with friends and family.
	I have missed out on social activities or events because of spending too much time on screens.
	My relationships with others have been affected by my screen usage habits.

Graph 4.6: Graph showing the percentage data of the sub-dimension social health



Interpretation:

From the above graphical representation of the data, it is evident that the majority of the students are not facing social health related issues due to prolonged screen time exposure, because they use electronic devices responsibly.

Spiritual Health	I have experienced a lack of connection to nature or a sense of disconnect from the world around me due to screen use.
	I regularly make time for activities or practices that nourish my spiritual or existential needs apart from screen-related activities.

Graph 4.7: Graph showing the percentage data of the sub-dimension spiritual health



Interpretation:

From the above graphical representation of the data, it is evident that majority of the students are not facing spiritual health related issues due to prolonged screen time exposure, because they use electronic devices responsibly.

Family Health	Screen time negatively impacts my interactions with family members.
	There are established rules or boundaries around screen time within my family.
	There have been conflicts or disagreements within my family related to screen usage habits.

Graph 4.8: Graph showing the percentage data of the sub-dimension family health



Interpretation:

From the above graphical representation of the data, it is evident that the majority of the students are not facing family health related issues due to prolonged screen time exposure, because they use electronic devices responsibly.

FINDINGS OF THE STUDY

The findings of the study highlighted that majority of the students were aware about the ill-effects of prolonged screen time exposure. Their screen time was limited and hence the students were found to be safe from the various health issues caused by the prolonged screen time exposure. Most of the students' screen time was limited to 2 hours. And they were found to have no health issues with respect to their physical health, mental health, academic health, social health, spiritual health, and family health. But interestingly the point that was highlighted here is that the 2 hours screen time was enough to hamper their emotional health as majority of them showed the concern for this dimension. Also, there were a few students who did face challenges with respect to all the dimensions of health i.e. physical health, mental health, emotional health, academic health, social health, spiritual health, and family health. The reason was their time spent on the screen per day. Thus, it was evident from the study that the screen time is associated with the health of the students. The findings of this study suggest the promotion of healthy screen habits among adolescents. This aim can be achieved through the following steps:

- Students should be conscious of their screen time and balance it with other activities such as outdoor play, reading, and socialising.
- It is recommended that students take regular breaks during screen use to rest their eyes and stretch their bodies. Following the 20-20-20 rule (every 20 minutes, look at something 20 feet away for at least 20 seconds) can be beneficial.
- Students should use digital devices for educational purposes and limit the use of entertainment media during study hours.
- Teachers should use digital tools to enhance learning experiences while ensuring they do not replace essential face-to-face interactions and hands-on activities.
- Teachers should keep track of students' screen time in class and encourage activities that promote physical and mental well-being.
- It is important for teachers to educate students about the responsible use of technology, including the importance of digital etiquette and the potential impacts of excessive screen time.
- Parents should establish clear rules and limits on screen time, ensuring a balance between digital device usage and other activities.
- Utilising parental control features to monitor and manage their child's screen time and the content they access is advisable for parents.
- Parents can model balanced and responsible screen use in their own daily routines to set a positive example for their children.
- The principal should develop and enforce school policies that promote balanced screen time and integrate digital health education into the curriculum.
- Providing resources and support for teachers to incorporate technology effectively and healthily in their classrooms is recommended.
- The principal should organise workshops and informational sessions for parents on managing their children's screen time and fostering a healthy digital environment at home.

CONCLUSION OF THE STUDY

Screen time can have a detrimental impact on various dimensions of a student's health, including physical, mental, emotional, academic, social, spiritual, and family well-being. However, if used responsibly, these negative impacts can be mitigated, and students can instead reap the benefits of digital engagement. This study underscores the importance of balancing screen time with other activities and encourages mindful and responsible usage. By employing appropriate strategies such as regular monitoring, parental controls, and promoting healthy digital habits, stakeholders can ensure that screen time contributes positively to students' overall development. Ultimately, responsible use of screen time can transform it into a valuable tool for enhancing educational outcomes and personal growth.

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