

# Exploring Influence of Technology Distraction on Students' Academic Performance

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## ABSTRACT

**Aim of the Study:** This study explores influence of technology distraction on students' academic performance at intermediate level. The objectives include exploring influence of technology distractions, identifying contributing factors, recognizing common types of technology distractions, and analyzing strategies to minimize negative effects.

**Methodology:** This study used descriptive quantitative research design. Students and their teachers in higher secondary schools of Layyah and Bhakkar districts of Punjab comprised the population of the study. The researcher used total population sampling for selecting 109 teachers and random sampling technique was used to select 350 students. Two self-structured questionnaires for teachers and students were developed, and data were analyzed using descriptive and inferential statistics.

**Findings:** The findings revealed significant insights of teachers and students who strongly agreed that use of technology distracts from academic tasks and adversely affects academic performance. Key strategies suggested establishing clear policies for technology use, implementing technology blocking tools, allocation of technology-free study periods, promoting responsible digital literacy, and involving parents in managing effective technology use.

**Conclusion:** By establishing a clear connection between technological distractions and academic performance, the researchers revealed that technology distraction harms students' academic performance. This study also highlights critical need for strategic interventions to manage technology distractions effectively.

**Keywords:** Technology Distraction, Academic Performance, Mobile Phones, Social Media.

## 1. INTRODUCTION

Technological distractions have an essential influence on academic performance. Students struggle with distractions from portable devices, making it hard for them to focus on their studies (Mujtaba et al., 2020). Classroom distractions from laptops and mobile phones make it difficult for students to

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concentrate, with ringing phones diverting their attention from teachers, has become major issues. Therefore, managing these distractions is essential for improving learning opportunities (Riaz et al., 2022). Technology distractions, such as multitasking while studying, lead to ruthless academic performance. The use of social media in education has produced unpredictable results, with concerns about digital distractions and limited learning (Pérez-Juárez et al., 2023). Smartphones serve both educational purposes and distractions. While they are used for learning by students, many spend more time online for fun than studying (Mumtaz et al., 2023). Digital distractions from smartphones can hinder self-directed learning and create issues in education (Sheikh, 2021). Smartphone distractions also have social effects. Long-term use among children is linked to less face-to-face family communication and more peer interaction outside the home, which may harm social well-being. Youth social media use has both positive and negative impacts, with social isolation being a major concern (Yousif, 2020). According to Fatima et al. (2022), young people are using social media more, which is changing their behavior and causing addiction to platforms like Facebook, TikTok, and Twitter, leading to aggressive actions.

However, technology can also positively impact students' reading habits and interests, potentially leading them to choose nonfiction for academic reading (Bogiannidis et al., 2023). Since students continuously use digital devices and are connected with on-line social media, teachers must develop a trend to use technology effectively to support teaching learning process effectively (Oscar et al., 2023). The unnecessary use of technology, mainly cell phones, significantly influences study. It can lead to technology addiction, which has physical, mental, cognitive, and behavioral impacts on students (Şirin & Ketrez, 2023). The need for a more inclusive analysis of how technology influences academic performance is highlighted by the challenges related to smartphone addiction and its connection with dissimilar results (Liao & Wu, 2022). The link between academic distraction and academic performance is complexly moderated by attention management (Riaz et al., 2023).

According to Zhao (2023), wasting too much time on social media can lead to distraction, crushed study time, and lower academic performance in college learners. The encouragement of social media on academic performance is challenging. The extraordinary influence of the COVID-19 pandemic on education has made the taking on digital technologies quicker, raising new worries about learning outcomes in distance education (Alam & Hameed, 2023).

In addition to it, Multitasking in the classroom has been found to negatively impact students' academic performance (AlFahl, 2023). Interruptions and distractions from enterprise technology, such as email, text, and app notifications, present managerial opportunities and challenges (Rourke et al., 2023). This simultaneous communication can disrupt student's performance and areas, resulting in work overload and reduced employment - the balance of life (Said, 2022). In addition, excessive technology can lead to reduced learning, work-life conflict, stress, and loss of productivity (Rasool et al., 2022). PérezJuárez et al. (2023) established those digital distractions block students' academic performance and cognitive abilities. Social media can distract students' academic performance from classroom contribution and interest in their imposts of teachers. Kostić & Randelović (2022) indicated a strong connection between these changes and reduced cognitive processing ability, resulting in lower academic achievement. Similarly, younger generations' use of social media presents a nuanced situation. While it can encourage creativity and engagement in various activities, it can also result in opposing effects such as depression and "institutional abuse" on social platforms. An investigation by Bharathi et al. (2023) has exposed that using mobile phones during learning is connected with inferior academic performance. Digital distractions such as internet browsing and social media can bind students' receptiveness and commitment in class, important to reduced knowledge and informative learning (Wang et al., 2022). Multitasking, motorized by digital distractions, has been initiated to decrease cognitive dispensation ability and negatively disturb academic performance.

Mujtaba et al. (2020), showed that social media, violent video games, and action content can lead to teenage violence. Students struggle with distractions from portable devices, making it hard for them to

focus on their studies. This highlights the need for better ways to manage technology distractions for a better learning environment.

### **1.1 *Statement of Problem***

In the digital era, intermediate-level students are deeply wrapped up in technology, with laptops, smartphones, and the internet being continuous confidants. This fuzziness is the link between educational resources and distractions such as social media, games, and entertainment. This general use of technology positions a challenge as students need help to differentiate reliable academic sources from problematic ones. As a result, an online value that dispirits critical thinking and obstructs learning may develop.

This study aims to investigate the causes and effects of technological distractions on intermediate-level students' academic performance. It looks to identify the various methods these distractions take and how meaningfully they impact students' focus, memory, and academic achievement.

### **1.2 *Research Objectives:***

The following objectives conducted this study:

1. To explore influence of technology distraction on students' academic performance.
2. To analyze strategies to minimize negative impact of technology distraction on students' academic performance.

## **2. LITERATURE REVIEW**

Side-tracked by technology, digital distraction is a serious problem in learning situations. This problem is exacerbated by elements such as attention impulsivity, internet addiction, and continuous technology use with several communication channels (Chen et al., 2023). People are becoming more worried about digital distraction, which is when using technology makes it hard to pay attention. Chen (2023) pointed out how it hurts focus, concentration, and total productivity. There are too many digital devices and online content for people to keep their minds engaged all the time.

This effect messes up the way our minds work and makes it harder to pay attention. This approach badly affects students' learning capacity and ultimately influences their achievement.

### **2.1 *Technology Distractions Affect Academic Performance***

Students report feeling less focused and performing worse when distracted by technology in class (Deepa et al., 2022). Multitasking, especially with social media, is a common culprit, potentially leading to problems with memory and learning (Kostić & Randelović, 2022). Benjet et al. (2023) detailed that student who texted during lectures scored lower on quizzes than those who focused on the lecture. More frequent internet use during class correlated with lower overall grades. While distractions may not immediately affect understanding, they can significantly hinder long-term memory. Multitasking with technology during studying can hurt grades. This is especially true for unrelated multitasking, like checking social media while working on assignments. The negative impact seems more vital for men and people with neurodiversity (Rourke et al., 2023). Laptops might be more distracting than tablets or phones during lectures (Zhalgassova et al., 2023). Too much technology can be wrong: Some research suggests a link between excessive ICT use and lower academic performance in math, especially in countries that heavily integrate technology into education (Gorjón & Osés, 2022). The influence of technology distraction on student performance is complex (Eduljee et al., 2022). Smartphones and social media are clear culprits: Studies consistently show they can be distracting and lead to lower grades. Social media notifications and the constant urge to scroll pull students away from their work; laptops are a bit of a mystery. They might be distracting, but they could also be helpful tools. Selfcontrol is critical: Learning to manage distractions, like limiting phone use or blocking distracting websites, can help students succeed (Dontre, 2021). Eduljee et al. (2022) was of the view that nearly all students reported

having a digital device with them while studying, primarily for messaging and checking the time. Outside of class, students use devices to avoid boredom and stay connected with others.

## **2.2 *Factors Contributing to Technology Distraction on Academic Performance***

There is no doubt that technology changes the way we learn, but psychological factors also have a big impact on how well we do in school. Séllei et al. (2021) identified how important personality traits and good psychological traits are. Personality traits like openness and extraversion can affect how well a person does in school. More outgoing students tend to be more likely to take part in class talks and look for social support, which makes them more engaged and motivated. More open people are more likely to be open to new ways of teaching, which could help them learn more.

## **2.3 *Types of Technology Distractions and Their Academic Impact***

Social and environmental factors have a big impact on how well students do in school, especially when it comes to using technology (Jabardi, 2022). College students' academic performance can be a double-edged sword regarding social media like Facebook. Facebook can be a distraction, but individual differences in attention control can moderate this effect. Distractions begun by unnecessary Instagram use can suggestively obstruct academic performance. Unnecessary Instagram use and the resulting distractions are harmful, individual changes in factors like self-confidence and responsiveness management can play a role in the harshness of the impact (Deepa et al., 2022 & Homaid, 2022). Social media use, mostly with stages like Snapchat, presents a possible task for student academic achievement (Jamil et al., 2020). Zamir and Mujeeb (2022) suggested excessive Twitter use can negatively affect student success. Students who spend a significant amount of time on Twitter may struggle with the following: The constant updates and notifications characteristic of Twitter can significantly hinder focus and concentration on studies, and excessive social media use can eat into valuable study time, leading to poor time management skills. Undeserved TikTok use is related to increased tension, nervousness, unhappiness, and lower life agreement (Liu, 2023; Chao et al., 2023). Herlina (2022) recommended an association between TikTok addiction and increased experiences of cyberbullying harassment, which can contribute to academic pressure and lower success.

While extreme screen time, including watching of YouTube videos, has been related to lower academic performance. Habes et al. (2022) suggested a negative correlation between extreme time watching YouTube videos and academic achievement. This may be because of the continuous display of content on YouTube, which can be extremely disturbing, making it problematic for students to focus on their studies, and unnecessary YouTube watching waste valued study time. Extreme use of WhatsApp can lead to habit and mismanagement, finally impacting study time and academic achievement, communication via WhatsApp can be disposed to overcorrection and text overwork, obstructing effective teamwork (Muhammad & Nagaletchimee, 2023). Extreme use of the Messenger app particularly at night, can lead to sleep lack, impacting emphasis and academic performance (Manap et al., 2022). Using messenger apps during class suggestively decreases students' aptitude to hold lecture material and do well on examinations. Sevnarayan (2023) suggested that Telegram, a messaging app, can be a devalued tool for distracting student learning. Syaiful (2023) showed that Telegram groups could decrease student engagement and interaction in courses, leading to distraction and academic success. Darr et al. (2021) highlighted a potential drawback of excessive online resource use during preclinical medical education: a negative impact on the effectiveness of synchronous learning. This suggests that responsible use is critical. Skype's impact needs further investigation; responsible use is crucial for maximizing its educational benefits.

In the view of Arreola et al. (2023), online gaming habits can influence academic performance. College students' online gaming habits have even been linked to broader changes in their attitudes and behaviors (Benjet et al., 2023). Several factors, like time spent gaming and poor attendance, can significantly impact academic achievement. Furthermore, there is a negative connection between unnecessary phone use and lower grades (Bharathi et al., 2023). Smartphone habits may tortuously influence grades by

losing physical activity (Imran et al., 2023). Though, some studies recommend that students who use smartphones usefully can smoothly overtake those who do not (Wang et al., 2022). Delay in assigned task, connected to phone use can also be an obstacle (Kertechian & Ismail, 2023).

Similarly, multitasking can hurt students' grade. This is likely because things like social media overload and constantly checking the internet can distract us from focusing on what we are learning. Multitasking can also make it harder to connect ideas effectively, which is crucial for academic success. While some research suggests multitasking might lower confidence and hurt grades, others propose it might have benefits that balance out the negatives (Kostić & Randelović, 2022).

Studies expressed that students who use social media and technology unreasonably can struggle in class (Dontre, 2021). For example, research recommends a connection between the full use of technology in classrooms and lower scores (Oscar et al., 2023). Multitasking on phones and social media can also be an important distraction, and result in poor students' grades (Wentworth & Middleton, 2014). Spending too much time on technology and social media is harmful to reading, writing, and cognitive performance.

## **2.4 Strategies to Minimize the Negative Impact of Technology Distraction**

To minimize the harmful influence of technology distraction on academic performance, self-regulated learning (SRL) procedures must be applied (Wang et al., 2022). These strategies include precaution, preparation, observing, controlling, and promoting student's cognition, inspiration, and performance, which support students in avoiding digital distractions equally inside and outside of the classroom. Blocking apps or setting goals with technology might be more helpful, but multitasking with social media hurts learning. Similarly, constantly checking of social media use can make it harder for students to indulge in such activities (Kostić & Randelović, 2022). According to Attia et al. (2017), early exposure to technology at home and school makes it important to teach responsible usage to minimize distractions and enhance learning.

Furthermore, techniques like setting goals, blocking distracting apps, and tracking tech use can be good starting points. Similarly, encouraging handwritten notes and short tech breaks during studying seems more effective (Pérez-Juárez et al., 2023). To combat distractions, students use self-regulated learning (SRL) strategies like planning and monitoring their behavior. Although many have access to digital tools, they mainly use smartphones for schoolwork, suggesting a need to improve how technology is used for learning. Concerns about digital distractions have led to mobile phone bans in schools, emphasizing the need to address this issue for better academic success (Aagaard, 2021).

Pérez-Juárez et al. (2023) expressed increasing academic performance and countering technology distraction. Organize the study sessions primarily with awareness and self-control. This means using techniques that keep you focused, such as keeping away things that encourage you to meander.

Dontre (2021) showed that parental involvement is a covert weapon against technological disruption. When parents cooperate, it improves students' grades by offering them support and encouragement and teaching them good study habits.

## **3. RESEARCH METHODOLOGY**

This study adopted a descriptive quantitative research design using a survey method to explore the impact of technology distraction on intermediate-level students' academic performance. Data were collected from intermediate-level students and teachers in the Layyah and Bhakkar districts of Punjab, Pakistan, using structured questionnaires. The researchers developed two questionnaires: one for teachers and the other for students. The reliability of the instruments was confirmed through Cronbach's Alpha, showing values of 0.78 for the teacher scale and 0.83 for the student scale.

The population included all higher secondary school students (male and female) and their teachers (male and female) from both districts, with a total of 109 teachers and 3,916 students (Source: <https://sis.punjab.gov.pk>; School Information System.2024). The sampling technique used for the teacher

population was total population sampling, while for students, the researcher applied simple random sampling, resulting in a sample of 350 students (226 males and 124 females). The results are derived using both inferential and descriptive statistics.

#### 4. FINDINGS: ANALYSES OF TEACHERS' RESPONSES

The Figure 1 (a), 1 (b) and 1 (c) gives the descriptive analysis of the responses of teachers regarding Objective 1: To explore influence of technology distraction on students' academic performance. Figure 2 shows the results of descriptive analysis of Objective 2: To analyze strategies that can be used to minimize negative impact of technology distraction on students' academic performance.

**Figure 1(a) *The influence of technology distraction on students' academic performance***

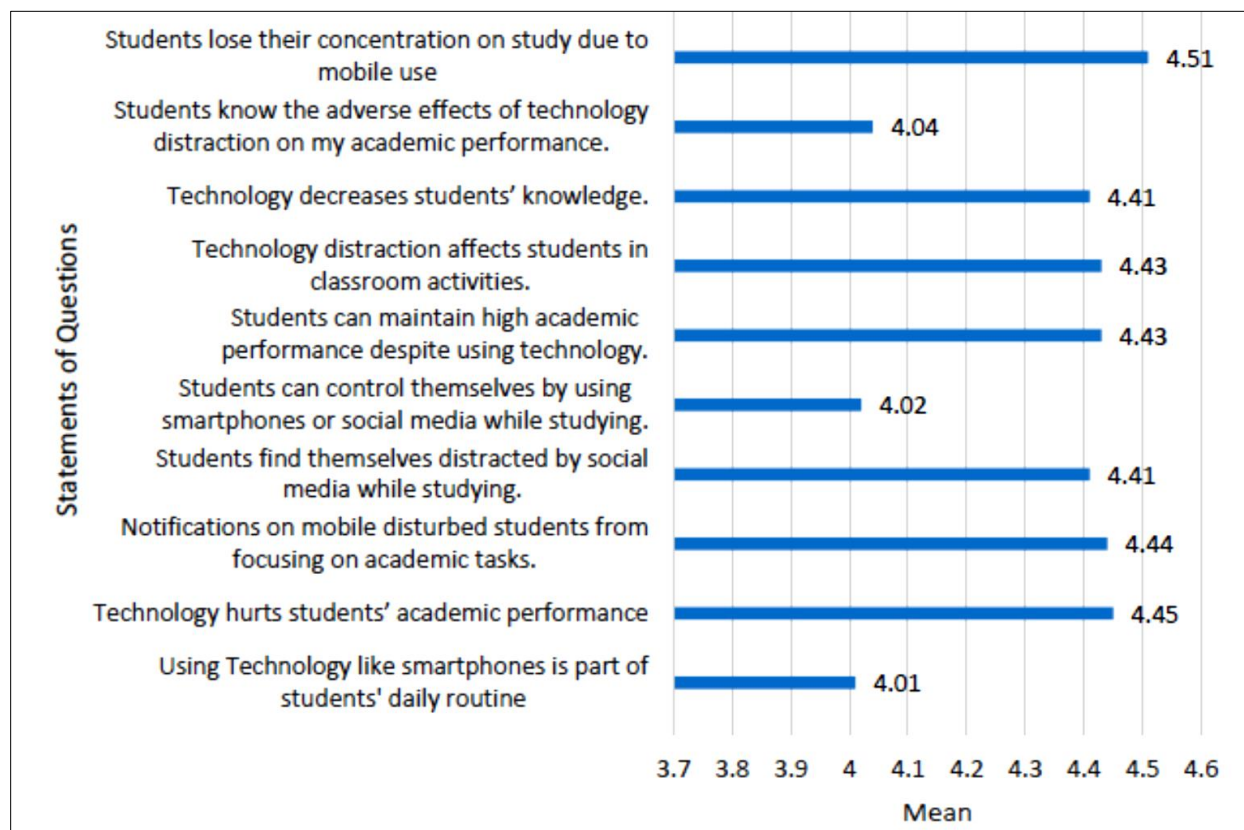


Figure 1(a) shows the findings of descriptive analysis of the data regarding the influence of technology distraction on students' academic performance. The bar graph clearly indicates that all the respondents were of the view that students find themselves distracted by social media while studying and students lose their concentration on study due to mobile use.

**Figure 1 (b) The influence of technology distraction on students' academic performance**

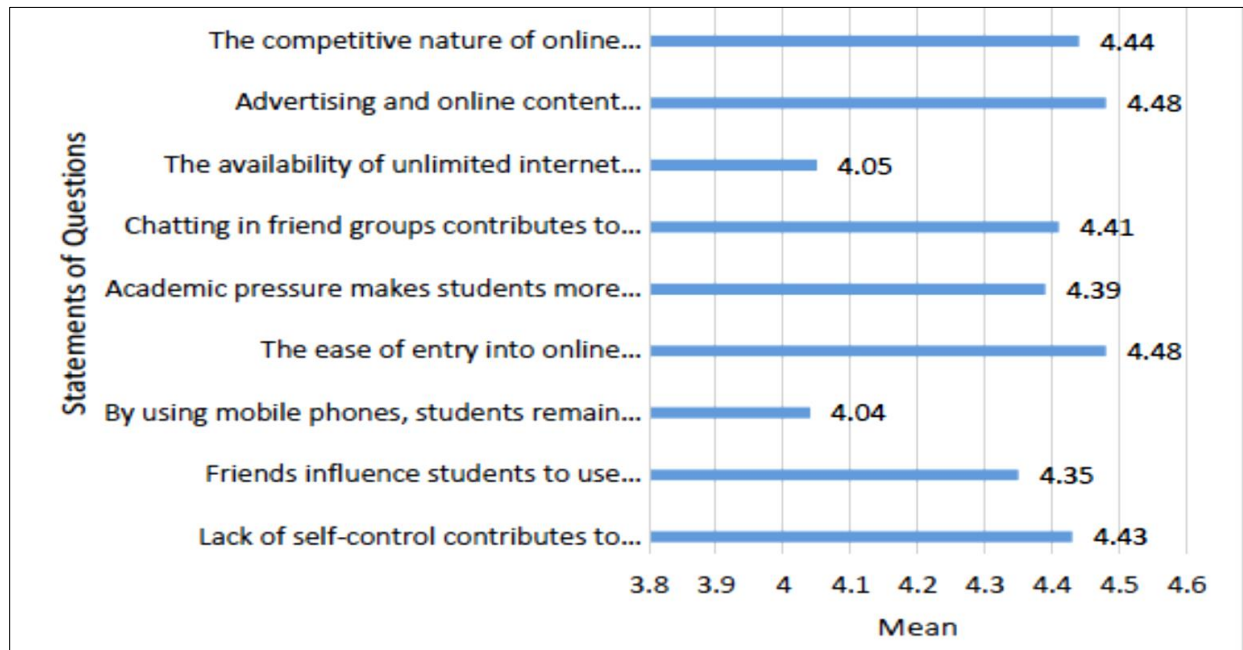


Figure 1 (b) provides the findings of descriptive analysis of the data regarding various factors contributing to technology distraction. Respondents strongly agreed that the factors: lack of self-control, friends' influence, desire to remain socially connected, easy approach to online entertainment, academic pressure students, advertising and online content encourages technology use, hence becomes a source of technology distraction.

**Figure 1 (c) The influence of technology distraction on students' academic performance**

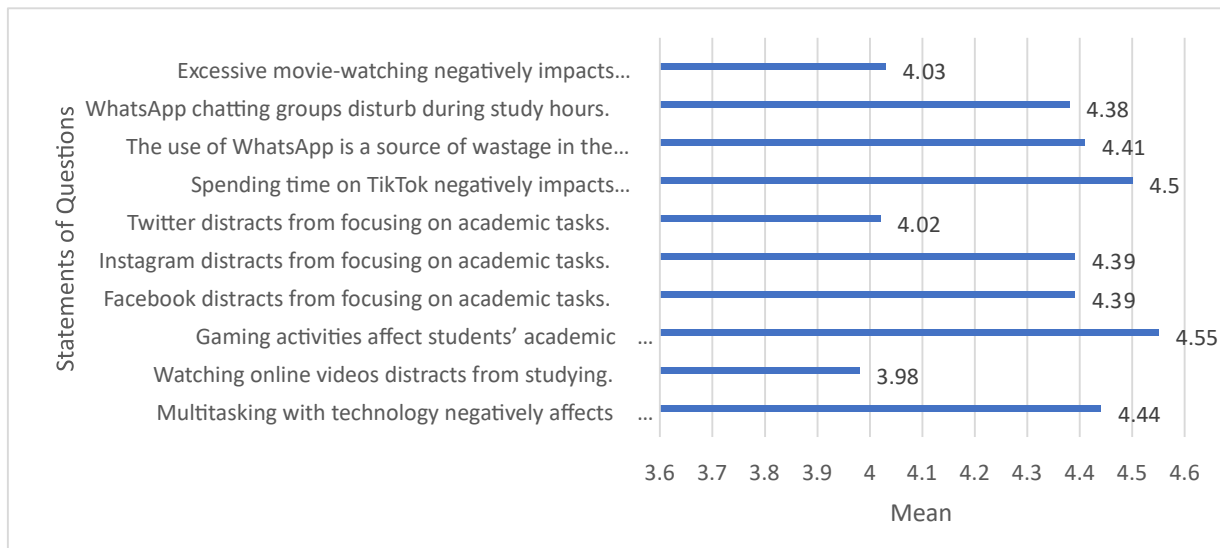


Figure 1(c) shows the findings of descriptive analysis of the data regarding the types of technology distraction used by students. Respondents strongly agreed that multitasking with technology, watching online videos, gaming activities, Facebook, Instagram, Twitter, TikTok, WhatsApp are the various sources technology distraction



**Figure 2: Strategies to Minimize Negative Impacts of Technology Distraction**

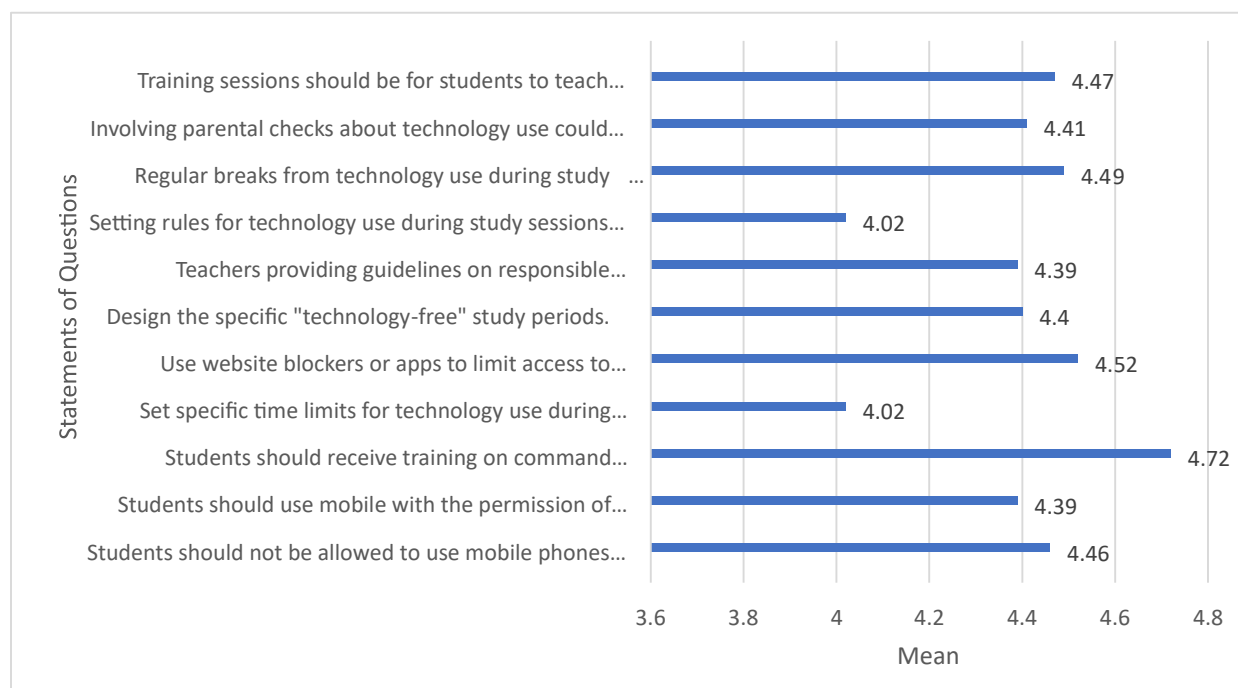


Figure 2 shows the findings of descriptive analysis of the data regarding strategies to minimize negative impacts of technology distraction. Respondents strongly agreed that training sessions for effective technology use, parental check, setting rules, teachers' guidance, website blockers and institutional check and balance may serve as the strategies to minimise negative impacts of technology distraction.

#### 4.1 Inferential Statistical Analysis of Teachers' Responses

An inferential statistical analysis of the data was conducted to examine variations in teachers' opinions across different demographic factors, including school location, gender, designation, age group, academic qualification and professional qualification.

Table 1: *Difference in Teachers' Responses Based on School Location*

Variable	Category	N	Mean	SD	Df	T	Sig
School Location	Rural	63	176.38	17.851	107	1.327	.057
	Urban	46	171.41	21.139			

Significance Level  $P > 0.05$

Table 1 indicates a statistically insignificant difference in teachers' opinion from rural and urban areas in terms of exploring the influence of technology distraction on students' academic performance.

Table 2: *Difference in Teacher Responses Based on Gender*

Variable	Category	N	Mean	SD	Df	T	Sig
Gender	Male	68	174.00	21.153	100.802	-0.210	.013
	Female	41	174.76	16.223			

Significance Level  $P > 0.05$

Table 2 reveals that there is statistically significant difference in the views of male participants and female participants regarding the influence of technology distraction on students' academic performance.



Table 3: *Difference in Teacher Perception Based on Experience*

	<b>sum of squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between groups	2165.597	3	721.866	1.976	0.122
within groups	38356.587	105	365.301		
Total	40522.184	108			

*Significance Level  $P > 0.05$*

Table 3 indicates that there was no statistically significant difference in the perception of teachers with varying levels of teaching experience, regarding the influence of technology distraction on students' academic performance.

Table 4: *Difference in Teachers Perceptions Based on Age*

	<b>sum of squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig</b>
Between groups	812.824	3	270.941	0.716	.544
within groups	39709.360	105	378.184		
Total	40522.184	108			

*Significance Level  $P > 0.05$*

The findings in Table 4 indicate an insignificant statistical difference in participants' perceptions based on age, regarding the influence of technology distraction on academic students' performance.

Table 5: *Difference in Teachers' Perception Based on Academic Qualification*

	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	1935.627	3	645.209	1.756	.160
Within Groups	38586..556	105	367.491		
Total	40522.183	108			

*Significance Level  $P > 0.05$*

Table 5 presents an insignificant statistical difference in participants' perceptions based on academic qualification, regarding the influence of technology distraction on academic students' performance.

Table 6: *Difference in Teachers' Perception Based on Professional Qualification*

	<b>Sum Of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>	<b>Sig.</b>
Between Groups	1730.522	3	576.841	1.561	.203
Within Groups	38791.661	105	369.444		
Total	40522.183	108			

*Significance Level  $P > 0.05$*

Findings presented in Table 6 indicate statistically insignificant difference in teachers' perception based on their professional qualification, regarding the influence of technology distraction on academic students' performance.

## 4.2 Findings: Analyses of Students' Responses

The Figure 3(a),3(b) and 3(c) give the descriptive analysis of the responses of teachers regarding Objective 1: To explore influence of technology distraction on students' academic performance. Table 4 shows the results of descriptive analysis of Objective 2: To analyze strategies that can be used to minimize negative impact of technology distraction on students' academic performance.

**Figure 3(a) *Influence of Technology Distraction on Students' Academic Performance***

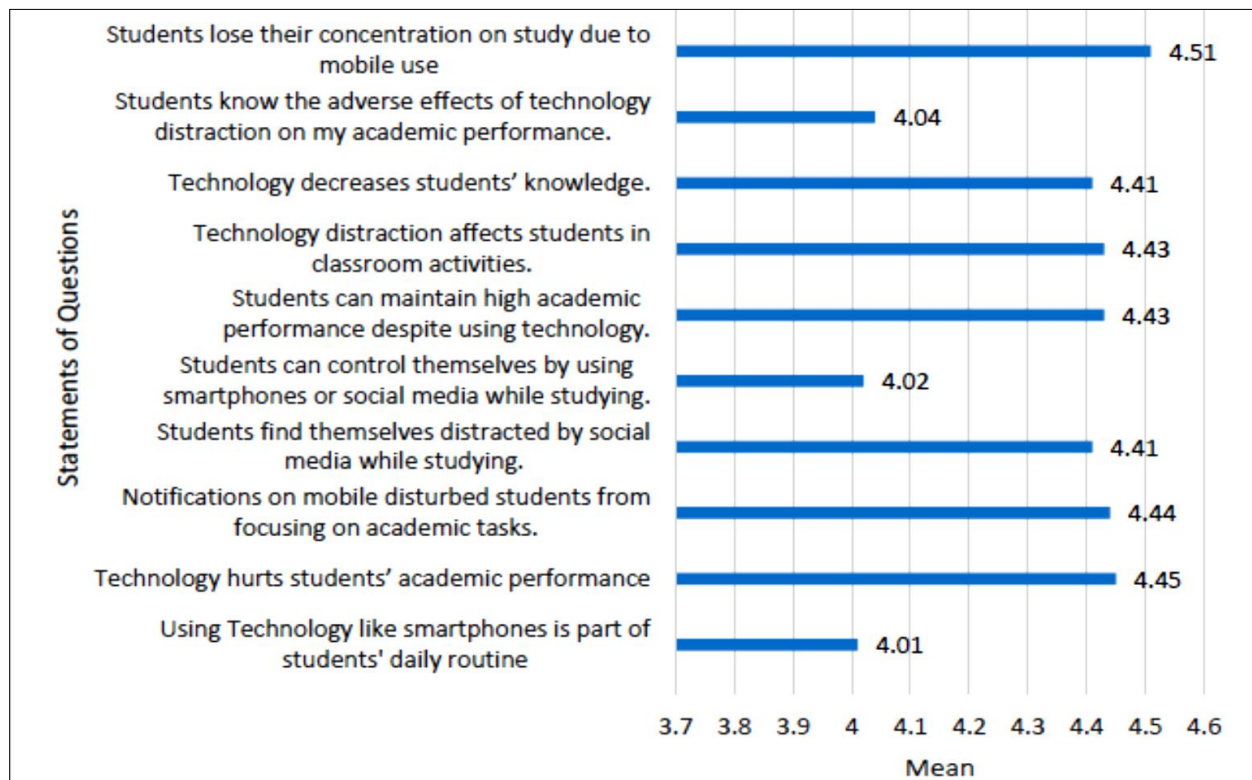


Figure 3(a) shows the findings of descriptive analysis of the data regarding the influence of technology distraction on students' academic performance. The bar graph clearly indicates that all the respondents were of the view that students find themselves distracted by social media while studying and students lose their concentration on study due to mobile use.

**Figure 3 (b) *Influence of Technology Distraction on Students' Academic Performance***

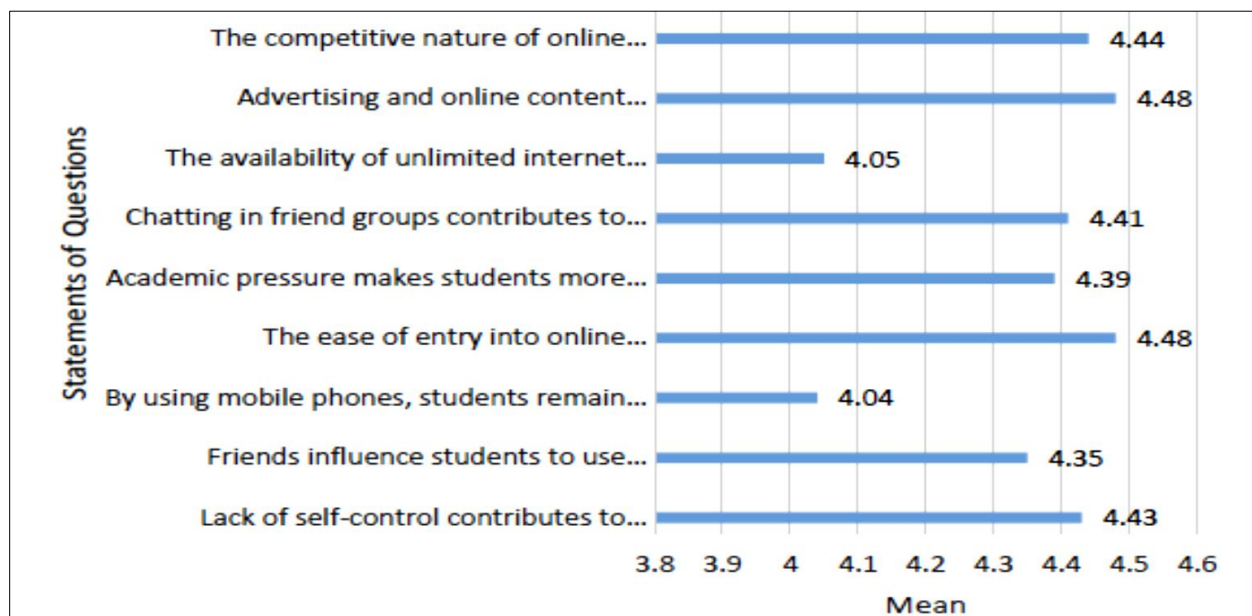


Figure 3(b) provides the findings of descriptive analysis of the data regarding various factors contributing to technology distraction. Respondents strongly agreed that the factors: lack of self-control, friends' influence, desire to remain socially connected, easy approach to online entertainment, academic pressure students, advertising and online content encourages technology use, hence becomes a source of technology distraction.

**Figure 3(c) *Influence of Technology Distraction on Students' Academic Performance***

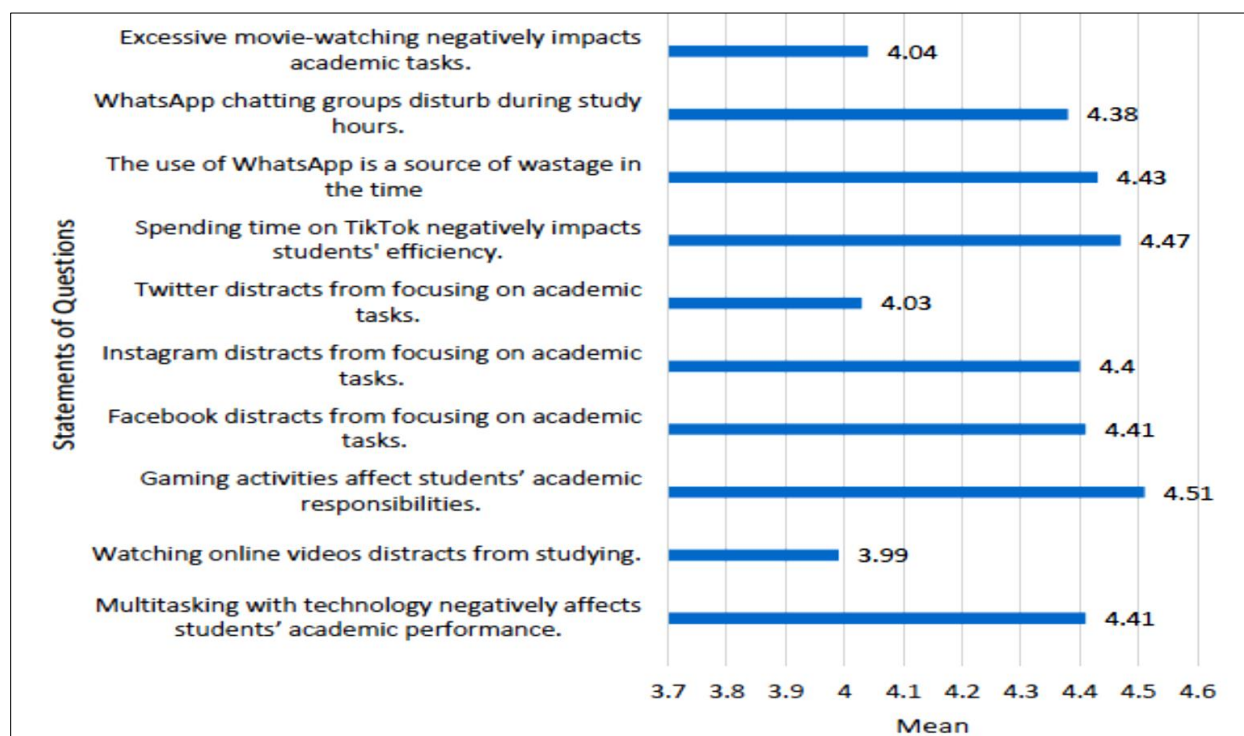


Figure 3(c) shows the findings of descriptive analysis of the data regarding the types of technology distraction used by students. Respondents strongly agreed that multitasking with technology, watching online videos, gaming activities, Facebook, Instagram, Twitter, TikTok, WhatsApp are the various sources technology distraction.

**Figure 4 *Strategies for Minimizing Distraction***

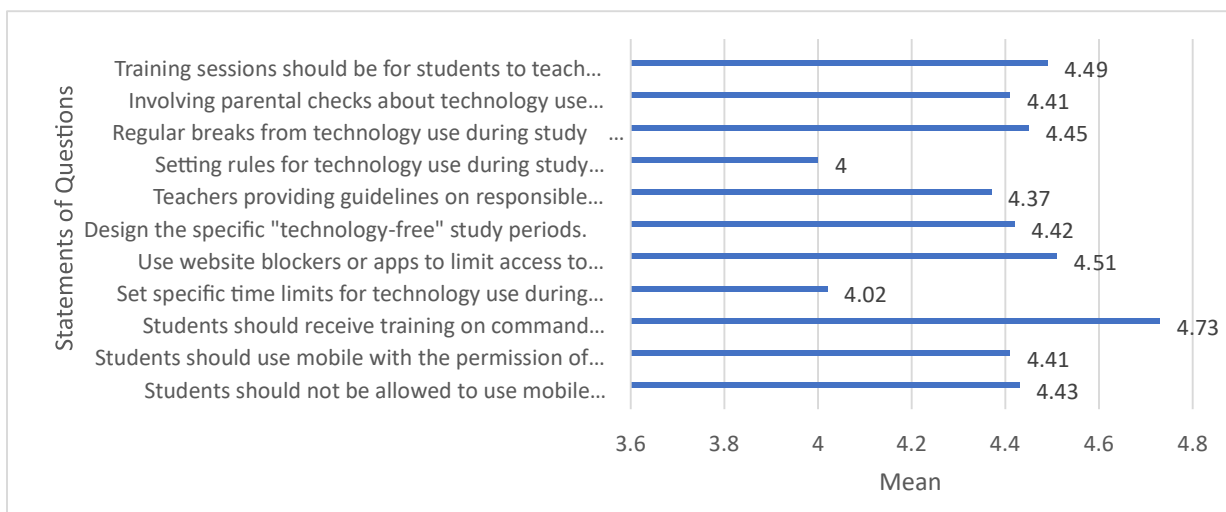


Figure 4 shows the findings of descriptive analysis of the data regarding strategies to minimize negative impacts of technology distraction. Respondents strongly agreed that training sessions for effective technology use, parental check, setting rules, teachers' guidance, website blockers and institutional check and balance may serve as the strategies to minimise negative impacts of technology distraction.

#### 4.2.1 Inferential Statistical Analysis of Students' Responses

In this subsection, analysis of the relationships and patterns between different variables.

Table 8: *Difference in Students' Perception Based on School Location*

Variable	Category	N	Mean	SD	Df	T	Sig
School Location	Rural	199	175.35	17.913	292.214	1.893	.001
	Urban	151	171.30	21.144			

*Significance Level  $P > 0.05$*

Table 8 illustrates the perception of respondents categorized by school location. It shows the results of an independent sample t-test comparing students' views on the influence of technology distraction on academic performance. The significant difference in perception suggests a distinction between students' perceptions in rural and urban areas, given that the Sig-value of 0.001 is lesser than 0.05.

Table 9: *Difference in Students Perception Based on Gender*

Variable	Category	N	Mean	SD	Df	T	Sig
Gender	Male	227	172.98	21.053	309.544	-0.881	<.001
	Female	123	174.76	16.090			

*Significance Level  $P > 0.05$*

Table 9 provides an overview of how male and female students perceived the influence of technology distraction on academic performance. An independent sample t-test was conducted to compare these perceptions at the intermediate level. The table value indicates a significant difference between the two groups.

Table 10: *Difference in Students' Perception Based on Academic Group*

	Sum of squares	df	Mean Square	F	Sig.
Between groups	7284.348	3	2428.116	6.736	<.001
within groups	124715.240	346	360.449		
Total	131999.588	349			

*Significance Level  $P > 0.05$*

Table 10 presents evidence indicating a noteworthy distinction ( $0.05 > .001$ ) in the perception of students based on their academic groups. A one-way ANOVA was conducted to examine the impact of academic groups on the influence of technology distraction on intermediate-level academic performance. The ANOVA results conclude significant differences in students' perceptions of academic performance between the various educational groups. The low p-value ( $< .001$ ) strongly suggests that these differences are not due to random chance. Therefore, a post hoc analysis (such as Tukey's HSD) should be conducted to identify which specific groups' perceptions differ. This will help pinpoint the particular pairs of groups with significant differences.

Table 11: *Post Hoc Analysis (Tukey's HSD) Group Perception*

Multiple Comparisons Tukey HSD				
(I) Academic Groups	(J) Academic Groups	Mean Difference	Std. Error	Sig.
FA	FSc	7.098*	2.523	.027
	I.Com	-3.970*	3.234	.610
	ICs	-1.799	4.649	.980
FSc	FA	-7.098*	2.523	.027
	I.Com	-11.068*	2.815	<.001
	ICs	-8.897*	4.368	.177
I.Com	FA	3.970*	3.234	.610
	FSc	11.068*	2.815	<.001
	ICs	2.171	4.814	.969
ICs	FA	1.799	4.649	.980
	FSc	8.897*	4.368	.177
	I.Com	-2.171	4.814	.969

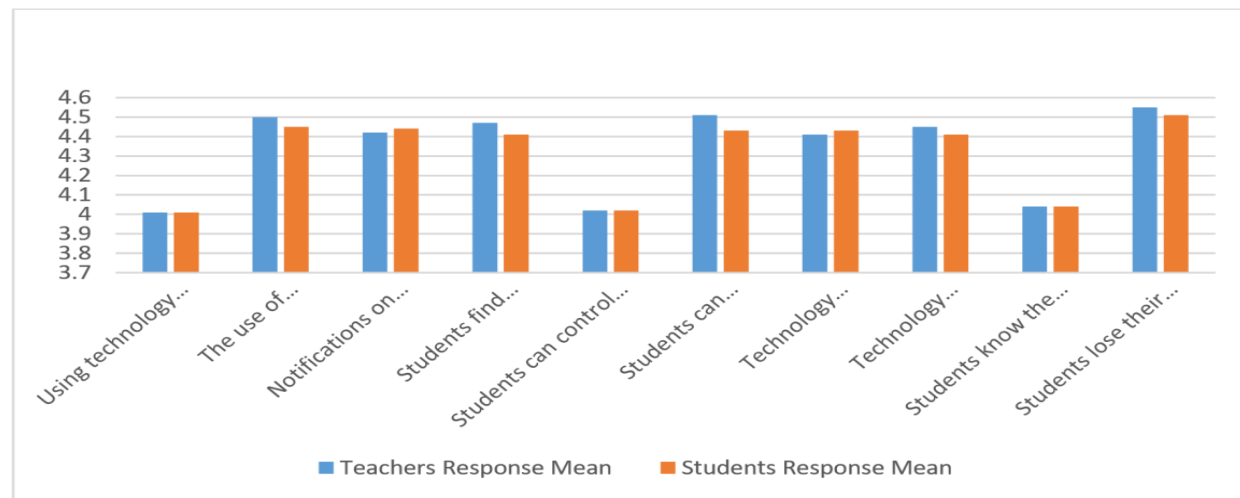
Significance Level  $P$  at 0.05

There was a statistically significant difference between groups, as demonstrated by one-way ANOVA ( $F(3,346) = 6.736, p < .001$ ). A Tukey post hoc test showed that the FA group was significantly further than the F.Sc group ( $p = 0.027$ ), and the F.Sc group was substantially further than the I. Com group ( $p < .001$ ). There was no statistical difference between FA and I.com groups ( $p = .610$ ), between FA and ICS groups ( $p = .980$ ), between F.Sc and ICS groups ( $p = .177$ ), and I. Com and ICS groups ( $p = .969$ )

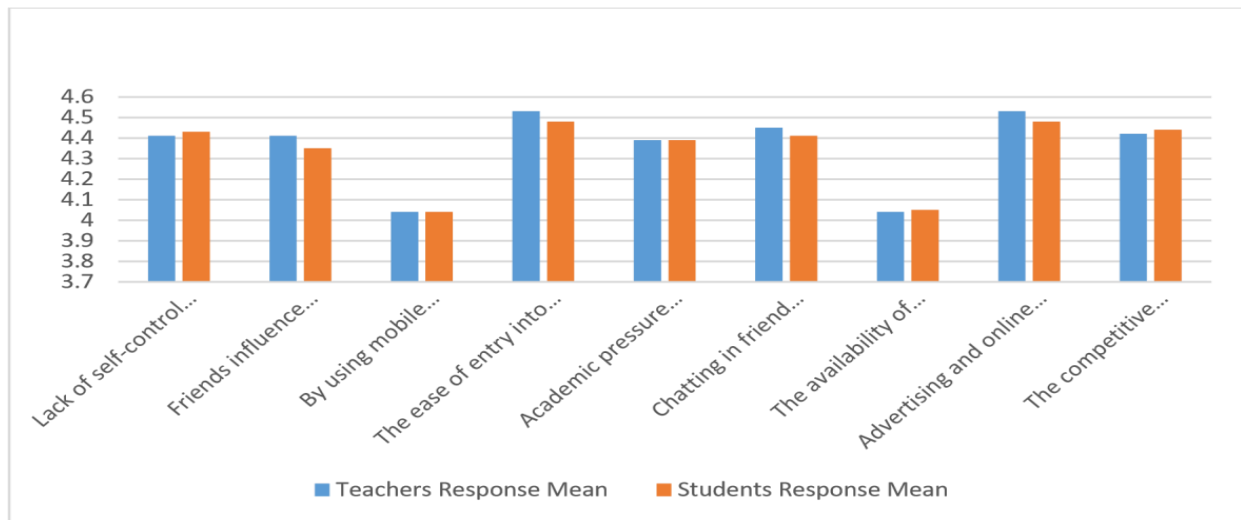
#### 4.3 Absolute Analysis of Students' and Teachers' Perspectives on Technology Distraction and Academic Performance

The Figure 5(a), 5(b) and 5(c) presents an absolute analysis, highlighting the differences between students' and teachers' perspectives on influence of technology distraction on students' academic performance. While Figure 6 presents an absolute analysis, highlighting the differences between students' and teachers' perspectives on strategies to minimize technology distraction.

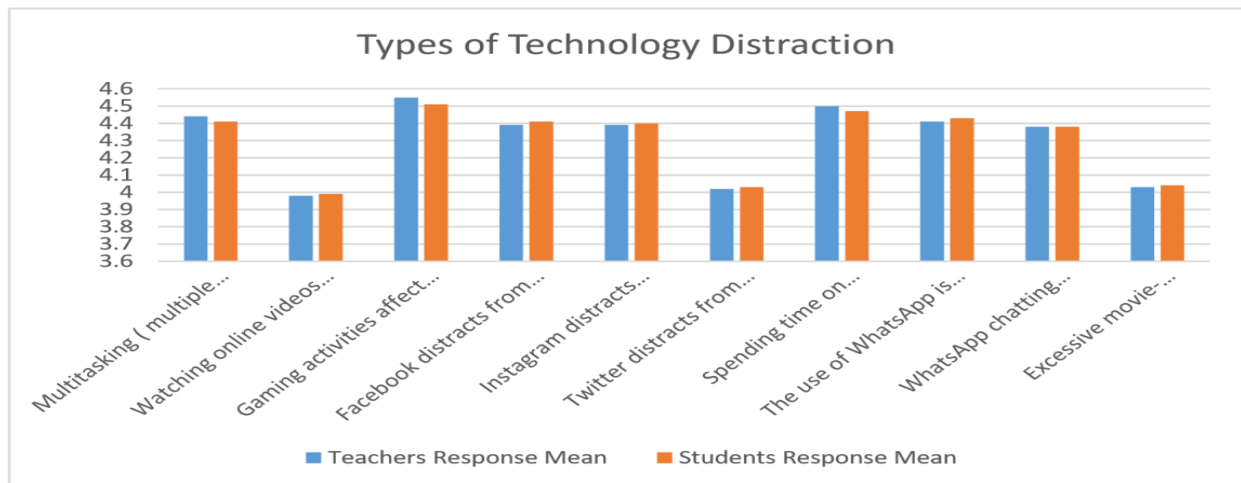
Figure 5(a) *Technology Distraction and Academic Performance*



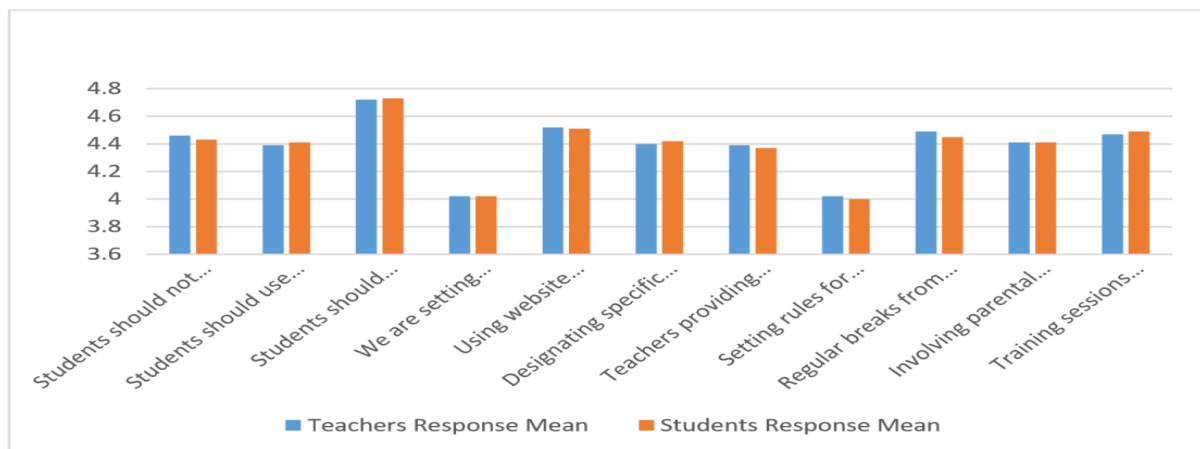
**Figure 5(b) Technology Distraction and Academic Performance**



**Figure 5(c) Technology Distraction and Academic Performance**



**Figure 6 Strategies to Minimize Technology Distraction**



## 5. DISCUSSION

This study's findings closely support the insights provided by Bharathi et al. (2023). Both the studies emphasize the pervasive presence of technology distraction among intermediate-level students and the agreement among participants regarding its detrimental impact on academic performance. While Bharathi et al. (2023) offered a broader overview of existing research on this topic, this study contributes empirical evidence specific to intermediate-level students, reinforcing the compromise regarding the negative impact of technology distraction. Both sources advocate for proactive measures to manage technology use effectively and mitigate its detrimental effects on students' academic performance.

Similar to Perez-Juárez et al. (2023), this study highlighted the significant effects of technology distraction on the academic performance of middle-level students. Both sources highlight the general recognition of the problem in the educational environment and the agreement among participants about the negative values of technology altering classroom activities and educational tasks. This study also verifies the findings of Kostić and Randelović (2022) about the commonness of technology distractions among intermediate-level students. Both sources highlight the harmful effects of technology distraction on academic performance and highlight oneness among participants regarding classroom activities and their negative outcomes for student retention.

The findings of this study bring negotiating to an end with those of Liao and Wu (2022) about the general amount of technology distraction among intermediate level students. Both sources highlight the commonness among participants regarding the negative effects of technology distraction on academic performance and highlight its harmful effects on classroom activities and student attentiveness on academic tasks.

## 6. CONCLUSION

The study successfully achieved its goals through a comprehensive examination of the effects of technology distraction on the academic performance of high school students. An overview of various aspects of technology diffusion, including its impact, contributing factors, types, and strategies, has yielded valuable insights. First, the study highlighted the significant impact of technology distraction on students' academic performance and its global presence in learning environments. This study recognizes the detrimental effects of technology distraction on attention, knowledge retention, and the overall learning experience and highlights the urgent need for practical steps to address this issue. Second, academic pressure, smartphone use, easy access to online entertainment, and peer or friend pressure to use the Internet are key factors that cause technical disruption among intermediate-level students. Third, investigations of specific technological disruptions such as online gaming, video streaming, and social media use have provided information about how technology affects students' academic performance. Teachers can develop strategies to deal with specific types of technical barriers and help students focus on their studies by identifying these barriers. Finally, the study explored different ways to minimize the negative effects of technology distraction on students' academic performance, including setting time limits for technology use, using website or app blockers, implementing technology-free periods of study, and promoting responsible use of technology through educational initiatives and parent engagement.

### 6.1 *Suggestions for Future Research*

1. Conduct longitudinal studies to study the long-term effects of technology distraction on academic performance and student well-being.
2. Study cultural and regional differences in the use of technology and their impact on academic performance.
3. Qualitative revisions can discover students' coping strategies, attitudes, and motivations associated with technology use, updating the progress of more student-centered involvements.



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## Conflict of Interest


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