Journal of Education and e-Learning Research
Vol. 12, No. 3, 417-428, 2025
ISSN(E) 2410-9991 / ISSN(P) 2518-0169
DOI: 10.20448/jeelr.v12i3.6947

The double-edged effects of screen time and time management practices on the academic performance of Cambodian accountancy students

Juliet Cadungog-Uy[1]
Edman P. Flores[2]✉

[1,2]*CamEd Business School, Phnom Penh, Cambodia.*
[1]*Email: Juliet@cam-ed.com*
[2]*Email: edman@cam-ed.com*

(✉ Corresponding Author)

Abstract

The study examines the impact of screen time and time management practices on the academic performance of Cambodian accountancy students. A quantitative approach was adopted using a structured questionnaire administered to 663 students. The research explores educational and non-educational screen time usage, perceived benefits, and time management strategies. Data analysis involved descriptive statistics, chi-square tests, and one-way ANOVA. The findings indicate a positive relationship between educational screen time and academic performance as measured by CGPA. Students recognize the advantages of educational screen time in enhancing digital literacy and facilitating self-paced learning. Surprisingly, the results also show a positive relationship between non-educational screen time and CGPA. Additionally, no significant relationship was found between time management practices and CGPA. These outcomes challenge conventional assumptions, suggesting that other factors, such as the ability to regulate screen time and manage distractions may play a crucial role in academic success. The study underscores the importance of promoting balanced digital habits and effective self-regulation strategies. Ultimately, this research serves as a valuable resource for teachers and policymakers, offering insights to enhance student performance and well-being in the digital era. By fostering a more supportive learning environment for Cambodian accountancy students, it provides a foundation for future studies to explore causal relationships and the specific content of screen time usage to refine these conclusions further.

Keywords: Academic performance, Accountancy students, Cambodia, Educational screen time, Non-educational screen time, Time management.

Citation | Cadungog-Uy, J., & Flores, E. P. (2025). The double-edged effects of screen time and time management practices on the academic performance of Cambodian accountancy students. *Journal of Education and E-Learning Research*, *12*(3), 417–428. 10.20448/jeelr.v12i3.6947
History:
Received: 18 March 2025
Revised: 11 July 2025
Accepted: 21 July 2025
Published: 29 July 2025

Publisher: Asian Online Journal Publishing Group

Funding: This study received no specific financial support.
Institutional Review Board Statement: The Ethical Committee of the CamEd Business School, Cambodia has granted approval for this study on 18 September 2024 (Ref. No. CamEd/REA/092024)
Transparency: The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.
Competing Interests: The authors declare that they have no competing interests.
Authors' Contributions: Both authors contributed equally to the conception and design of the study. Both authors have read and agreed to the published version of the manuscript.

Contents

1. Introduction **418**
2. Literature Review **418**
3. Research Methods **419**
4. Results **420**
5. Discussion **427**
6. Conclusion **427**
References **427**

Contribution of this paper to the literature
This study contributes uniquely by investigating the nuanced relationships between screen time, time management, and academic performance specifically among Cambodian accountancy students. Unlike previous research, it highlights the unexpected positive correlation between non-educational screen time and academic success, necessitating further exploration into this dynamic within a localized context.

1. Introduction

Digital technology has transformed modern education, reshaping how students access information, interact with teachers, and engage with learning materials (Timotheou et al., 2023). E-learning platforms and educational apps enhance the learning experience (Alhammad et al., 2024). However, the growing reliance on digital devices has increased screen time, raising concerns about their non-educational use. Activities, such as social media, gaming, and streaming have been linked to reduced attention spans, disrupted sleep patterns, heightened stress levels, and lower academic performance (Liu, Lan, Chen, He, & Jia, 2022; Wang et al., 2023).

Limited attention has been given to Cambodian accountancy students while research on screen time and its effects is expanding. Specifically, little is known about how screen time and time management together impact their academic performance, leaving a significant gap in the literature. This study seeks to address this by examining the relationships between screen time (both educational and non-educational), time management practices, and academic performance among Cambodian accountancy students.

This study aims to explore various aspects of screen time and time management among Cambodian accountancy students. It seeks to describe their screen time usage patterns and compare the amount of time spent on educational versus non-educational activities. Additionally, it examines the perceived benefits of educational screen time and identifies its most frequent uses. The research further investigates the relationship between both educational and non-educational screen time and academic performance while also assessing screen time activities considered time-wasting and the areas negatively impacted by excessive screen time. Moreover, it delves into the time management strategies employed by students and analyzes the correlation between these practices and their Cumulative Grade Point Average (CGPA).

This research has important implications for teachers, students, and policymakers in Cambodia. The findings can guide the development of targeted interventions that promote responsible technology use, effective time management strategies and improved academic outcomes. Students will gain valuable insights into optimizing their screen time habits for enhanced learning and well-being while policymakers can use these findings to craft evidence-based policies that effectively integrate technology into education and promote digital literacy. This study aims to create a more balanced and supportive learning environment for Cambodian accountancy students in today's digital era.

2. Literature Review

The widespread use of digital devices has significantly transformed student life, raising important questions about the relationship between screen time and academic performance. Educational screen time has been shown to improve critical thinking and problem-solving skills (Noetel et al., 2021) as well as foster collaboration and communication abilities (Tamilarasi, 2023). However, these benefits are context-dependent and require moderation. Research suggests that moderate screen time usage can improve academic outcomes, such as enhancing CGPA (Farooq, Ahmad, & Jahan, 2023) without negatively affecting quality of life (Singh et al., 2022). Excessive screen time, even for educational purposes can lead to negative effects like sleep disruption, reduced attention spans, and other challenges (Howie, Joosten, Harris, & Straker, 2020; Marciano & Camerini, 2021) emphasizing the need for a balanced approach.

On the other hand, non-educational screen time which typically includes activities, such as entertainment, social media, and gaming is strongly linked to poorer academic outcomes, especially when used excessively (Paulich, Ross, Lessem, & Hewitt, 2021; Pérez-Chada et al., 2023). Excessive screen time has been found to disrupt sleep patterns with pre-bedtime use leading to shorter sleep duration and increased daytime sleepiness (Mao et al., 2022; Pérez-Chada et al., 2023). It is also associated with mental health issues like anxiety and depression (Brombach, Dietch, Sy, Trevorrow, & Zhou, 2023) and physical health problems (Patterson & Warnakulasuriya, 2022). All of which further impact academic performance. Moreover, socioeconomic factors influence this relationship as higher family income has been linked to better academic outcomes despite increased screen time usage (Farooq et al., 2023). These findings underscore the multifaceted impact of screen time on student well-being and academic success.

The relationship between screen time and academic performance is shaped by context, content, and balance. Educational screen time, particularly when supported by parental involvement can enhance literacy and spatial skills (Coulanges, Bachman, Libertus, & Votruba-Drzal, 2024). However, excessive use, even for educational purposes may disrupt healthy behaviors, such as sleep (Howie et al., 2020; Marciano & Camerini, 2021). Adhering to screen time guidelines (Howie et al., 2020; Marciano & Camerini, 2021) and maintaining balance across activities, including study time (Zubair, Qazi, Faisal, & Khan, 2024) is associated with improved academic outcomes. Howie et al. (2020) and Marciano and Camerini (2021) also emphasized that limiting non-educational screen time, especially before bedtime is critical for enhancing sleep quality and academic performance.

Additionally, several studies underscore the critical role of time management practices in academic success, revealing a strong positive relationship between effective time management strategies and enhanced academic performance among students (Khan, Zeb, Ahmad, & Ullah, 2019; Mariano, Madel, & Miranda, 2022). A systematic review of time management strategies in college education confirms this relationship across various disciplines (Liu, 2024) with practice-based interventions showing stronger effects on academic outcomes than knowledge-based approaches (Trentepohl et al., 2022). Time management training not only reduces course failures but also fosters positive attitudes, particularly among male students (Wilson, Joiner, & Abbasi, 2021).

However, the effects of time management on academic performance are not consistent across all demographics, as factors like gender and context can shape the effectiveness of interventions. For instance, research by Wilson et al. (2021) revealed that time management training significantly improved academic outcomes for male students but

not female students. Similarly, Baniaghil, Eksir, and Behnampour (2021) found that time management training did not greatly enhance academic performance for female high school students, although it did improve their short-term planning abilities.

Several activities are commonly identified as obstacles to effective time management. Excessive use of social media often leading to addiction has been associated with negative academic outcomes and reduced psychological well-being (Chen, Chen, Pakpour, Lin, & Griffiths, 2021; Lin, Liu, Fan, Tuunainen, & Deng, 2021). The distracting nature of digital platforms like social media can divert attention away from educational and other productive activities (Bosse, Renner, & Wilkens, 2020; Marciano & Camerini, 2021). Activities such as excessive video chatting, phone calls, and "doom scrolling" further contribute to wasted time and can harm mental health (Sheen, Ro, Dos Santos, Kagadkar, & Zeshan, 2020). An imbalance between social activities and academic responsibilities can also hinder academic progress while socializing is essential (Gutiérrez Ángel et al., 2022). Finally, although listening to music may not be a significant time-waster in itself, it can contribute to overall screen time, which, if not managed effectively can negatively influence academic performance (Lin et al., 2021).

Furthermore, the interplay between screen time and time management contributes significantly to academic outcomes. Effective time management facilitates the allocation of screen time towards productive activities, enhancing academic performance. Conversely, poor time management can lead to excessive recreational screen time, negatively impacting academic results (Ishii et al., 2020; Mao et al., 2022). The timing of screen use, especially pre-bedtime can disrupt sleep patterns, further exacerbating negative academic consequences (Mao et al., 2022). Therefore, a holistic approach to time management that incorporates mindful screen time regulation is essential for optimizing academic success.

This study addresses a gap in the literature regarding the impact of screen time and time management on the academic performance of Cambodian accountancy students. Its primary objective is to explore the relationship between these factors by examining several key aspects. First, the study investigates the demographic profile of student respondents, including age, gender, year level, and the primary devices used for screen time. It also examines the daily hours dedicated to both educational and non-educational screen time and evaluates the association between the average usage of screen time for these purposes. Additionally, the study identifies the specific occasions when students engage in educational screen time and assesses its perceived benefits.

Furthermore, the research explores the relationship between educational screen time usage and academic performance among accountancy students highlights screen time activities considered time wasters, and examines areas negatively impacted by excessive screen time. It also investigates the time management strategies employed by students and analyzes the relationship between time management practices and their CGPA.

The study tests four hypotheses to provide a structured framework for understanding these impacts. Hypothesis 1 examines whether a difference exists between students' average screen time usage for educational and non-educational purposes (H_0: no difference and H_a: a difference exists). Hypothesis 2 investigates whether there is a significant difference between the duration of educational screen time and academic performance (H_0: no significant difference and H_a: a significant difference exists). Hypothesis 3 explores whether non-educational screen time significantly affects academic performance (H_0: no significant difference and H_a: a significant difference exists). Lastly, hypothesis 4 assesses whether students' time management practices are significantly related to their CGPAs (H_0: no significant difference and H_a: a significant difference exists).

3. Research Methods

3.1. Research Design

This study utilizes a quantitative research design to explore the impact of screen time and time management practices on the academic performance of Cambodian accountancy students.

3.2. Participants and Study Setting

The study participants were 663 students from different CamEd Business School year levels. CamEd is an institute of higher education in Phnom Penh, Cambodia, specializing in teaching accounting and finance. It is the only school in Cambodia to have platinum quality recognition from the international UK-based Association of Chartered Certified Accountants (ACCA).

3.3. Data Collection Methods

Data were gathered using a carefully designed questionnaire that captured detailed insights into students' screen time usage, including both educational and non-educational activities, their time management practices, and academic performance as measured by their CGPA. The questionnaire was administered in structured environments, such as classrooms under supervised conditions to ensure high response rates and reliable data. The questionnaire was created using Google Forms and distributed to various Google Classrooms of CamEd students across different year levels with the lecturers' permission. Students' participation in the survey was voluntary.

The research questionnaire is divided into five sections. The first section gathers basic demographic information, such as participants' age, gender, and year of study. The second section focuses on screen time usage patterns, including the types of devices used, average daily screen time, and typical times of engagement. The third section explores participants' perceptions of the benefits of educational screen time and collects self-reported CGPAs, which are verified through random transcript checks. The fourth section investigates challenges related to screen time management, their effects on academic performance, and strategies for improvement. Lastly, the fifth section examines the broader impacts of excessive screen time and poor time management on various aspects of participants' lives, such as their academic performance, health, and overall well-being while also identifying practical strategies for effective time and academic management.

3.4. Data Analysis

The questionnaire responses were delved into using Excel and SPSS, employing various statistical techniques. Descriptive statistics, including frequency counts, means, and weighted means, were used to summarize the data and provide an overview of response patterns. The chi-square test was performed to identify significant relationships between variables, such as educational and non-educational screen time and students' CGPA.

Furthermore, one-way ANOVA was applied to compare the average scores of time management practices and students' CGPA, offering insights into variations in academic performance based on differing time management strategies.

Seven items were evaluated using a 5-point Likert scale to assess students' perceptions of the benefits of educational screen time. The mean scores were analyzed based on predetermined criteria to determine the level of agreement among respondents. Table 1 presents the score ranges and their corresponding interpretations. A mean rating between 4.21 and 5.00 indicates "strongly agree" signifying that the students find educational screen time extremely helpful. Scores from 3.41 to 4.20 reflect "agree" suggesting it is very helpful while a mean rating of 2.61 to 3.40 corresponds to a " neutral" stance, implying that educational screen time is somewhat helpful. Lower scores between 1.81 and 2.60 indicate " disagree" meaning the students consider it not so helpful whereas scores ranging from 1.00 to 1.80 represent " strongly disagree" indicating that educational screen time is not at all helpful.

Table 1. Interpretation of mean ratings for perceived benefits of educational screen time

Score range	Mean rating	Interpretation
4.21-5.00	Strongly agree	Extremely helpful
3.41-4.20	Agree	Very helpful
2.61-3.40	Neutral	Somewhat helpful
1.81-2.60	Disagree	Not so helpful
1.0-1.80	Strongly disagree	Not at all helpful

Cronbach's Alpha was calculated, yielding a reliability coefficient of $\alpha = 0.903$, indicating strong internal consistency to verify the reliability of the seven items used in the assessment.

Additionally, students' strategies for effective time management were evaluated using another 5-point Likert scale comprising eight items. The mean ratings were examined based on pre-established criteria to assess the frequency of time management practices. Table 2 presents the score ranges and their corresponding interpretations. A mean rating between 4.21 and 5.00 signifies "always" meaning the time management strategy is applied every time. Scores ranging from 3.41 to 4.20 correspond to "often" suggesting the strategy is used most of the time, while a rating between 2.61 and 3.40 reflects "sometimes" indicating occasional application. Lower scores from 1.81 to 2.60 represent "seldom" meaning the strategy is rarely applied, and scores ranging from 1.00 to 1.80 signify "never" indicating that the strategy is not ever applied.

Table 2. Interpretation of mean ratings for time management strategies

Score range	Mean rating	Interpretation
4.21-5:00	Always	Applied every time
3.41-4.20	Often	Applied most of the time
2.61-3.40	Sometimes	Applied occasionally
1.81-2.60	Seldom	Applied rarely
1.0-1.80	Never	Not ever applied

The internal consistency of the eight items was assessed, yielding a Cronbach's alpha value of 0.764. This coefficient reflects the degree to which the test items are related as a group. According to Goforth (2015), many methodologists suggest that an acceptable α coefficient typically falls between 0.65 and 0.8 or higher, while values below 0.5 are generally deemed unacceptable. A higher alpha coefficient indicates stronger shared covariance among test items, suggesting they measure the same underlying concept more effectively.

4. Results

4.1. Profile of Respondents

Table 3 presents a comprehensive profile of the respondents, all of whom belong to Generation Z. A significant majority of respondents are aged between 18 and 20 years. The data reveals a predominance of female participants, with most currently in their second year of college studies.

Table 3. Profile of respondents

Category	F	%
Age		
Under 18	5	0.75
18-20	449	67.72
21-23	201	30.32
24-26	7	1.06
Over 26	1	0.15
Total	663	100.00
Gender		
Male	197	29.71
Female	462	69.68
Other/ prefer not to say	4	0.60
Total	663	100.00
Year level		
Year 1	13	1.96
Year 2	433	65.31
Year 3	191	28.81
Year 4	26	3.92
Total	663	100.00

Table 4 highlights the devices most commonly used for educational screen time with laptops ranking first, followed closely by iPhones and tablets. In terms of non-educational screen time, students predominantly use iPhones, with laptops, tablets, and Android phones also being frequently utilized.

Table 4. Devices used by the students for educational and non-educational screen time

Devices used	For educational purposes		For non-educational purposes	
	f	***Rank***	***F***	***Rank***
Laptop	615	1	293	2
iPhone	419	2	523	1
Tablet	221	3	142	3.5
Desktop	149	4	93	4
Android phone	68	5	142	3.5

4.2. Screen Time Usage and Time Management Practices

According to Figure 1, the trend of average hours spent on educational screen time shows an upward trajectory, starting from less than 1 hour to 3-4 hours, but it begins to decline after four hours. In contrast, non-educational screen time can extend up to more than six hours. These findings imply that students are more inclined to engage with their devices for non-educational purposes for longer periods. As educational screen time decreases, non-educational screen time increases, indicating a shift in usage patterns.

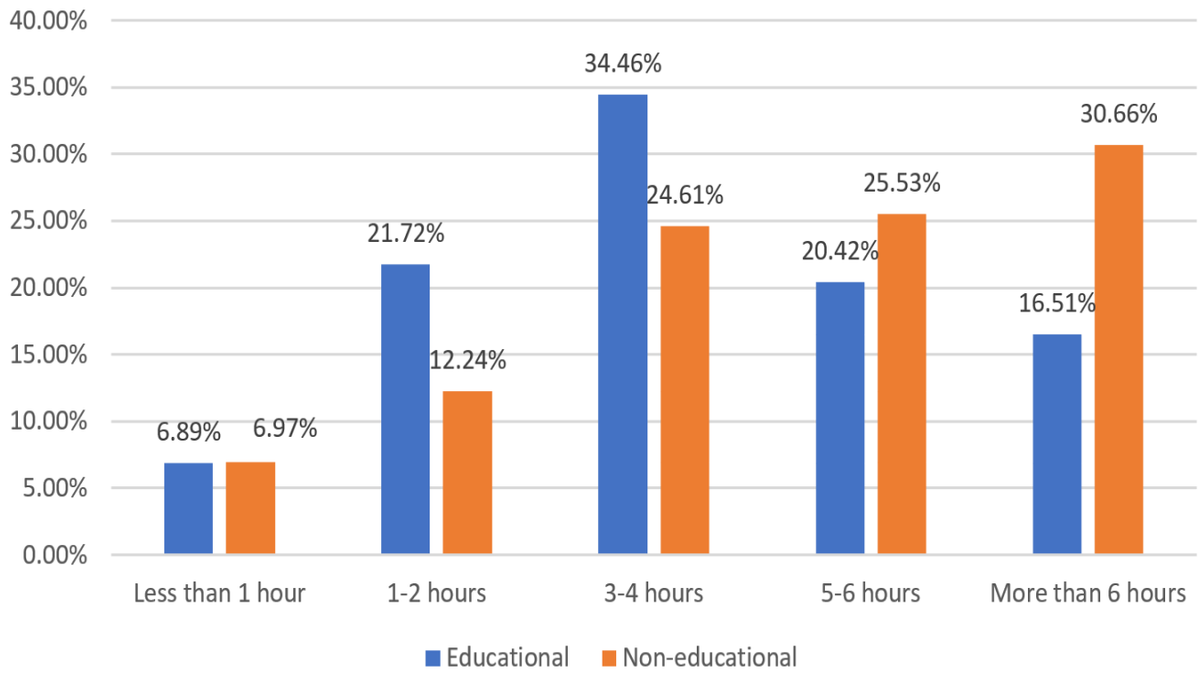

Figure 1. Average hours spent on educational and non-educational screen time

According to Figure 2, the occasions when students spend the most educational screen time are while preparing for a long exam (90.51%), preparing for a quiz (90.36%) and working on a school project or assignment (87.95%).

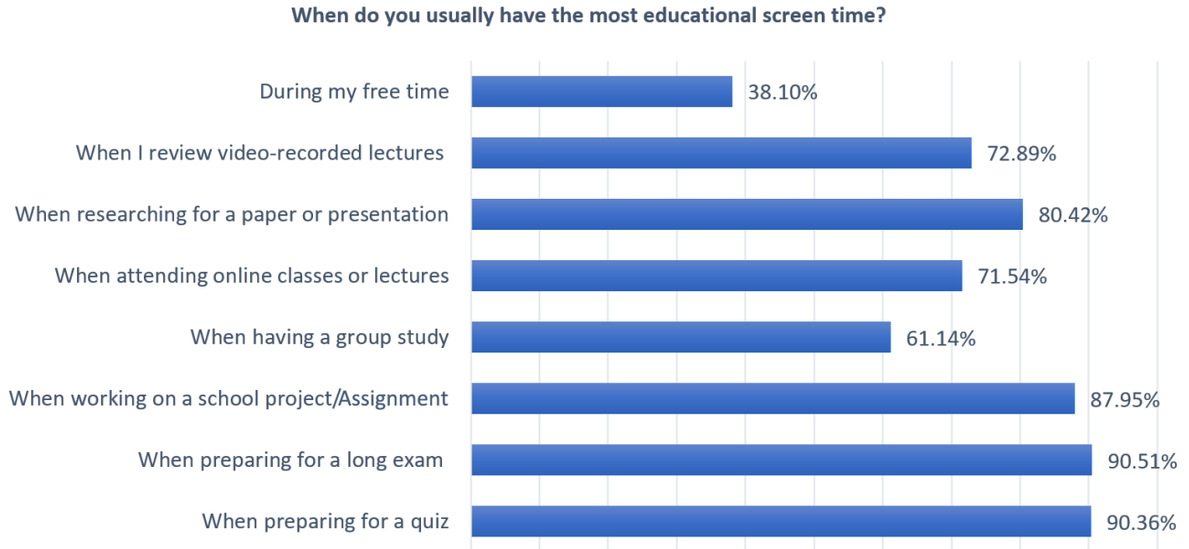

Figure 2. Occasions when students spent most educational screen time

Most students engage in educational screen time during the morning and afternoon, while non-educational screen time is mainly undertaken at any time, predominantly in the evening and night (see Figure 3).

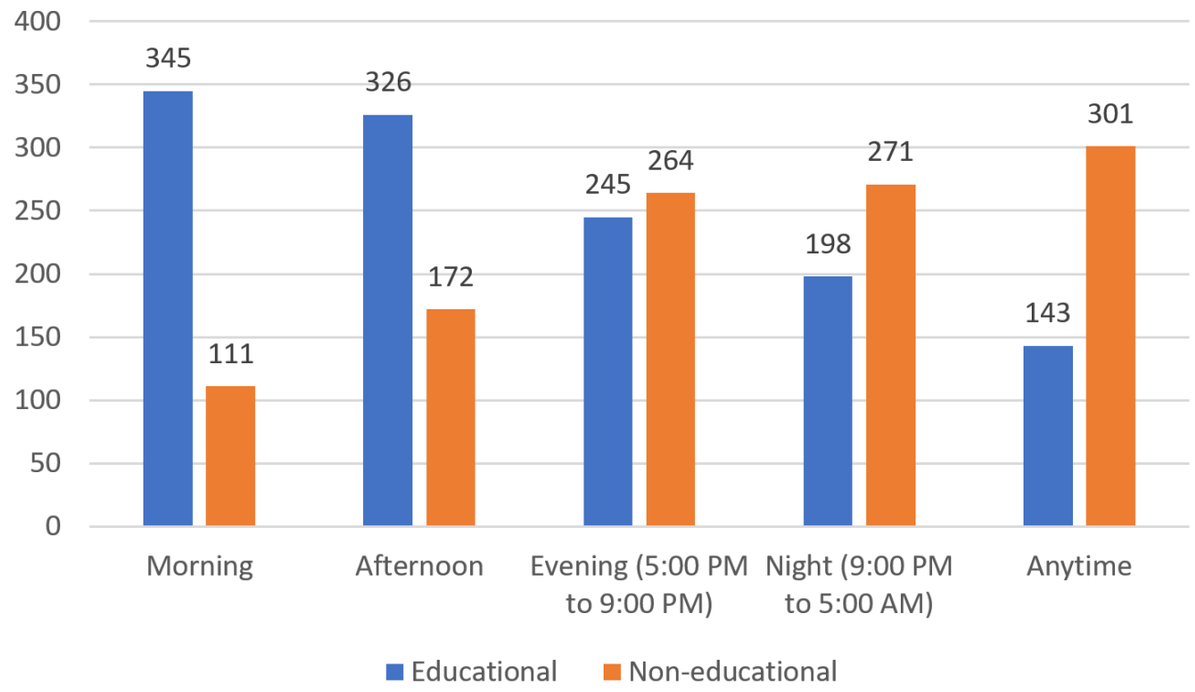

Figure 3. Time of the day mostly engaged in screen time

As shown in Figure 4, most students (58%) felt that their educational screen time was just right, and almost the same proportion (59%) felt that their non-educational screen time was excessive.

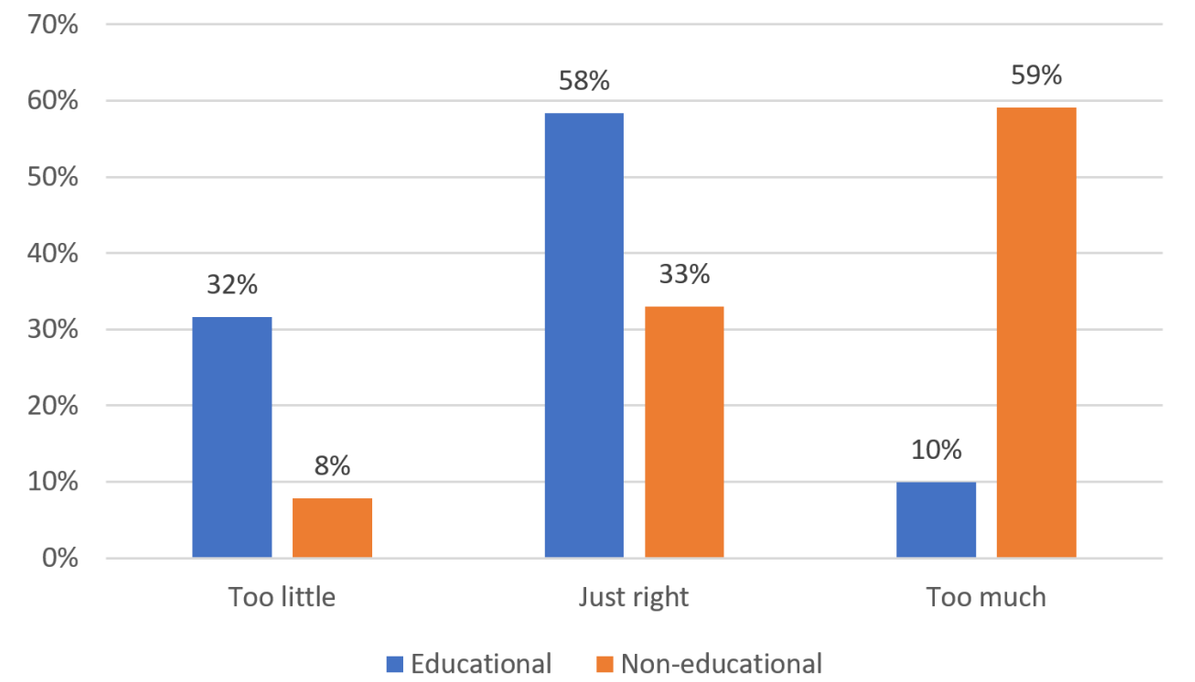

Figure 4. Students' perception of their screen time

The students reported that educational screen time is beneficial in boosting their digital literacy skills ($\bar{x}$ =3.82), improving their academic performance ($\bar{x}$ =3.80), and helping them engage in self-paced learning ($\bar{x}$ =3.72). The composite mean of 3.55 indicates that educational screen time is *very helpful* to the students (see Table 5).

Table 5. Benefits of educational screen time

Benefits of educational screen time that students experience	Mean ($\bar{x}$) per item	Std. deviation	Interpretation of the mean score
It improves my socialization skills.	3.25	1.013	Somewhat helpful
It enhances my critical thinking and problem-solving skills.	3.56	1.011	Very helpful
It promotes my school readiness.	3.43	0.979	Very helpful
It builds my communication skills.	3.25	1.027	Somewhat helpful
It helps me improve my academic performance.	3.80	1.113	Very helpful
It encourages self-paced learning.	3.72	1.086	Very helpful
It boosts my digital literacy skills.	3.82	1.093	Very helpful
Composite mean	3.55		Very helpful

The activities identified as time-wasting are illustrated in Figure 5 based on student responses. Browsing social media platforms, such as Facebook, Instagram, Twitter, and Tiktok ranks highest with 68.17% of students

considering it a primary time-wasting activity. This is followed by playing games on their phones or laptops which is ranked second by 62.90% of students. Additionally, 60.33% of students identified "doom scrolling" or excessively reading negative news stories on social media, as the third most significant time-wasting activity.

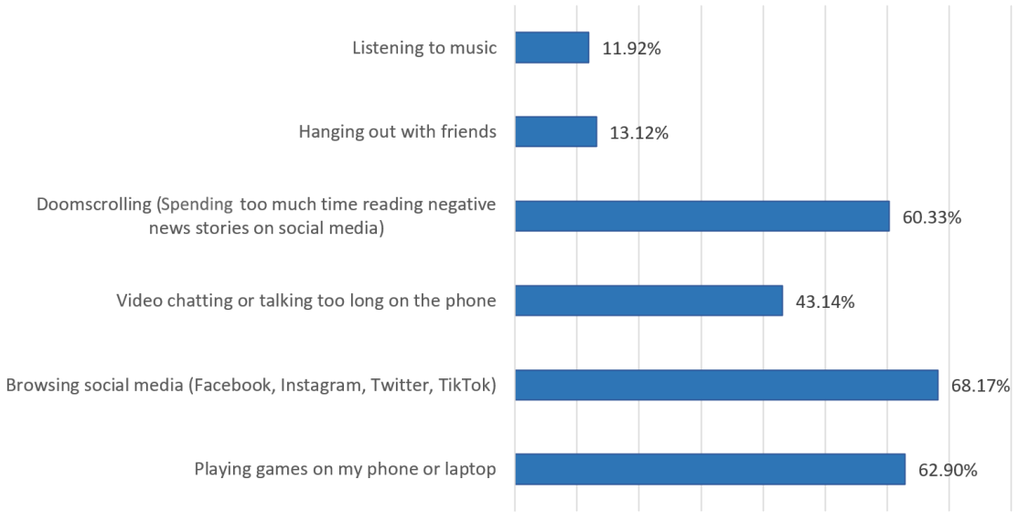

Figure 5. Activities considered by the students as time wasters

The students reported some adverse effects of too much screen time (see Figure 6). The majority of students indicated that their quality of sleep (75.26%), mental health (60.94%), and academic performance (55.96%) were negatively impacted. These findings highlight significant concerns regarding the overuse of screens and its potential detriments to essential aspects of student well-being and success.

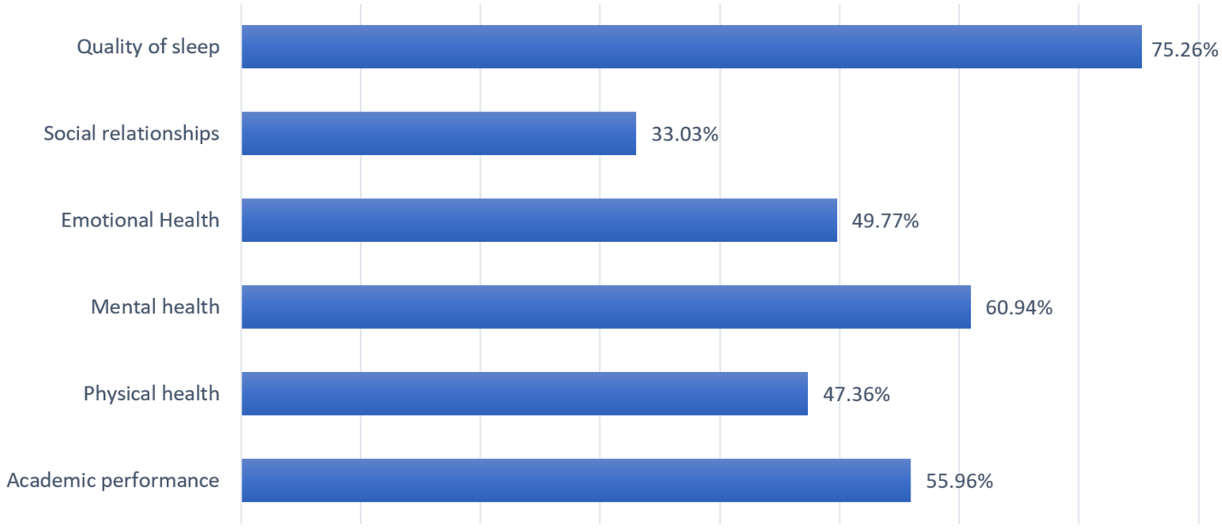

Figure 6. Areas of life negatively affected by too much screen time

Students' time management practices primarily involve prioritizing their tasks (mean score = 3.88) and setting specific goals and deadlines (mean score = 3.62). These strategies are applied most of the time, as illustrated in Table 6.

Table 6. Time management practices of students

Time management strategies used by the students	Mean	Std. deviation	Interpretation of mean score
I create a study schedule.	3.21	1.011	Applied occasionally
I make a list of tasks I need to accomplish for the day.	3.29	1.060	Applied occasionally
I set specific goals and deadlines.	3.62	0.971	Applied most of the time
I prioritize my tasks.	3.88	0.882	Applied most of the time
I minimize distractions.	3.16	0.889	Applied occasionally
I avoid time wasters.	3.09	0.885	Applied occasionally
I use time management tools (e.g., planners and apps).	2.82	1.177	Applied occasionally
I seek help from friends or mentors.	2.78	1.192	Applied occasionally
Composite mean	3.23		Applied occasionally

When asked whether they believe poor time management negatively affects their academic performance, three out of four students agreed or strongly agreed that poor time management had detrimental effects on their academic performance (see Figure 7).

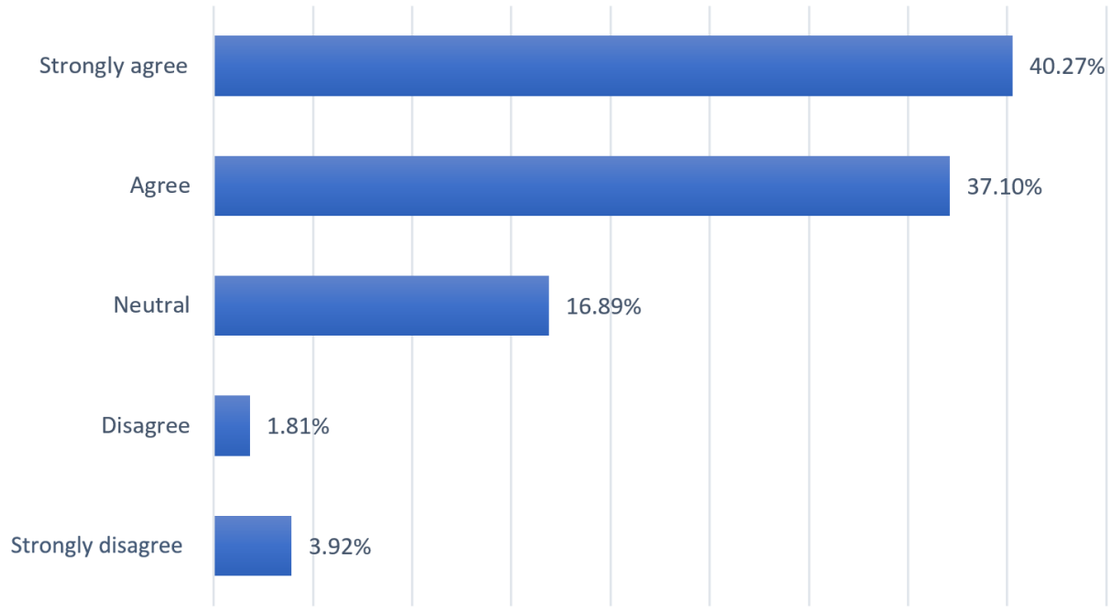

Figure 7. Do students believe poor time management negatively affects their academic performance?

4.3. Impact of Screen Time and Time Management Practices on Academic Performance

Figure 8 illustrates that a substantial number of students regardless of their CGPA allocate 3-4 hours daily to educational screen time. The largest proportions are found among students with CGPAs of 2.0 (47%) and 1.0 (41%). Interestingly, students achieving a 4.0 CGPA report the highest average duration of educational screen time, exceeding six hours per day, with 28% of this group engaging in such extensive usage compared to 22% of students with a CGPA of 3.0, 19% with a CGPA of 2.0, and 13% with a CGPA of 1.0. Additionally, the 4.0 CGPA students also show the highest percentage (29%) spending 5-6 hours on educational activities.

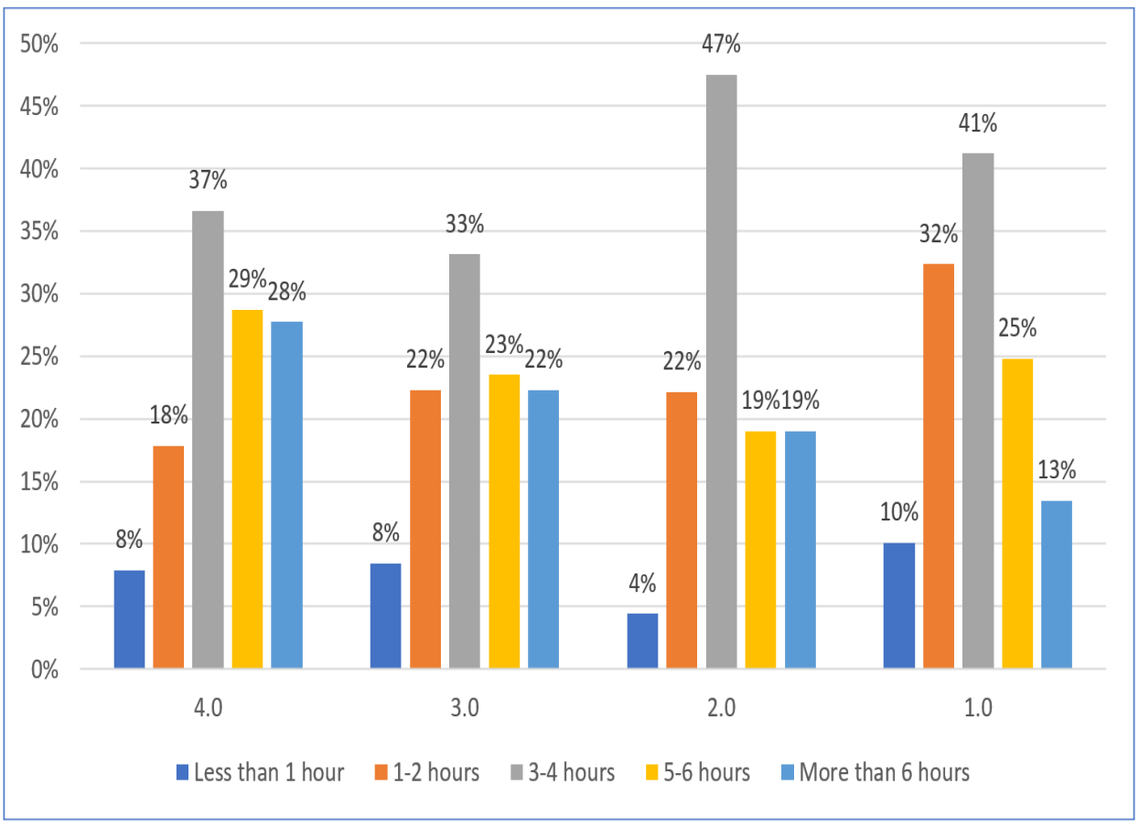

Figure 8. Educational screen time of students with 4,3,2,1 CGPAs

In contrast, Figure 9 indicates that among students with CGPAs of 4.0 and 3.0, 42% report engaging in over six hours of non-educational screen time. This is followed by 30% of students with a CGPA of 2.0 and 32% with a CGPA of 1.0, highlighting a concerning trend among lower-achieving students. Approximately 33% of students with the highest CGPAs also report spending 5-6 hours on non-educational screen time, marking the highest proportion across all groups. Conversely, students with a CGPA of 1.0 exhibit the highest percentage (33%) spending 3-4 hours on non-educational screen time, while those with CGPAs of 2.0, 3.0, and 4.0 demonstrate lower percentages, with the 4.0 CGPA group showing the least engagement at 19%.

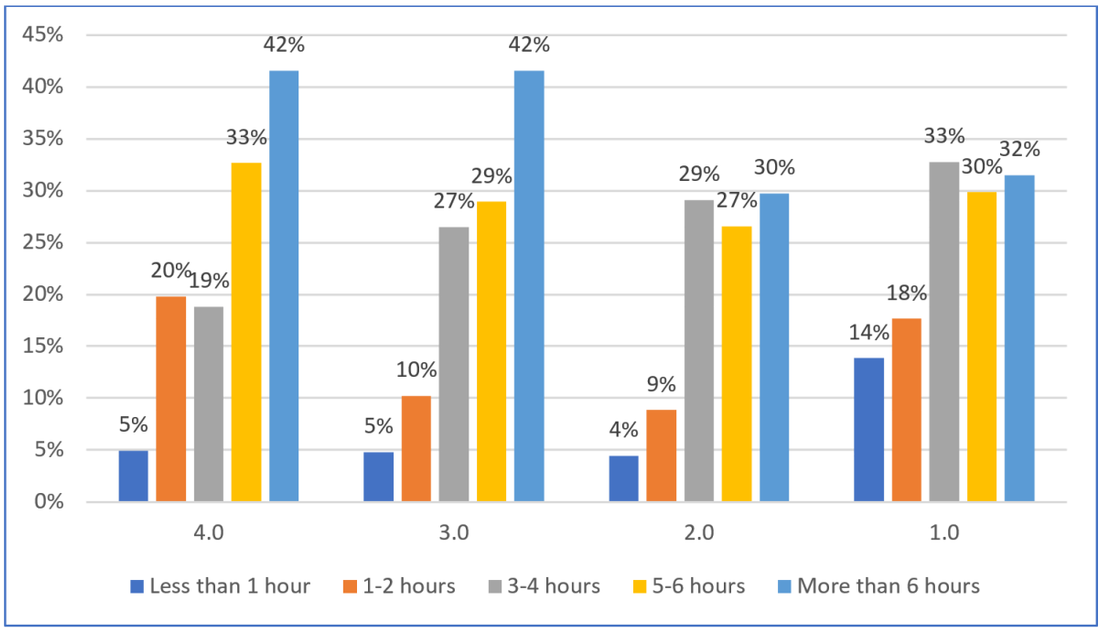

Figure 9. Non-educational screen time of students with 4,3,2,1 CGPA

4.3.1. Hypothesis 1

H0: The students' average screen time usage for educational and non-educational purposes is not the same.

Ha: The students' average screen time usage for educational and non-educational purposes is the same.

To probe this hypothesis, a chi-square test was conducted. The observed frequencies for screen time usage were categorized into five groups: < 1 hour, 1-2 hours, 3-4 hours, 5-6 hours, and more than 6 hours. The data presented in Table 7 shows the distribution of screen time for both educational and non-educational purposes among the students.

Table 7. Observed frequency of average screen time usage for educational and non-educational purposes

Screen time purpose	Less than 1 hour	1-2 hours	3-4 hours	5-6 hours	More than 6 hours	Total
Educational	26	138	236	136	127	663
Non-educational	10	67	165	161	233	636
Total	36	205	401	297	360	1299

The chi-square test result (see Table 8), $\chi 2 = 20.0$ with a p-value of 0.220 (two-tailed) did not reject the null hypothesis. Therefore, there is insufficient evidence to conclude that the average screen time usage for educational and non-educational purposes is the same. The data suggest that students are more likely to spend longer periods on non-educational screen activities compared to educational ones.

Table 8. Result of chi-square tests

Measures	Value	df	Asymp. sig. (2-sided)
Pearson chi-square	20.000	16	0.220
Likelihood ratio	16.094	16	0.446

4.3.2. Hypothesis 2

H0: There is no significant difference between the span of educational screen time and the academic performance of accountancy students.

Ha: There is a significant difference between the span of educational screen time and the academic performance among accountancy students.

Table 9 presents the CGPA distribution for each educational screen time category. The data reveals a compelling trend. Students who engage in more than six hours of educational screen time achieve an average CGPA of 2.937. This is notably higher compared to the average CGPA of 2.565 observed in students who spend 1-2 hours on educational activities. To rigorously evaluate these observations, a one-way ANOVA statistical test was used to determine the statistical significance of the differences across the educational screen time categories.

Table 9. CGPA distribution for each educational screen time category

Category	N	Mean	Std. deviation	Std. error	95% confidence interval for mean		Minimum	Maximum
					Lower bound	Upper bound		
< 1 hour	26	2.615	1.023	0.201	2.202	3.029	1.000	4.000
1-2 hours	138	2.565	0.764	0.065	2.437	2.694	1.000	4.000
3-4 hours	236	2.712	0.795	0.052	2.610	2.814	1.000	4.000
5-6 hours	136	2.772	0.869	0.075	2.625	2.919	1.000	4.000
>6 hours	127	2.937	0.774	0.069	2.801	3.073	1.000	4.000
Total	663	2.733	0.817	0.032	2.671	2.795	1.000	4.000

An ANOVA was conducted to test Hypothesis 2 which posits whether there is a notable difference between the length of educational screen time and the academic performance of accountancy students. The ANOVA test results in Table 10 revealed an F statistic of 3.749 with a p-value of 0.005. Since the p-value of 0.005 is less than the significance level of 0.05, the null hypothesis (H_0) which states that there is no significant difference between the span of educational screen time and the academic performance of accountancy students is rejected. This result

shows a notable difference between the span of educational screen time and academic performance (measured by CGPA) among accountancy students. The analysis suggests that the number of hours spent on educational screen time is positively correlated with students' CGPA variability. Specifically, study hours ranging from 5-6 hours and more than 6 hours are associated with better CGPA outcomes compared to less than 4 hours. Simply, the longer the educational screen time, the higher the students' CGPA.

Table 10. ANOVA results on the effects of educational screen time on academic performance

Source of variation	Sum of squares	Df	Mean square	F	Sig.
Between groups	9.843	4	2.461	3.749	0.005
Within groups	431.904	658	0.656		
Total	441.747	662			

4.3.3. Hypothesis 3

H0: There is no significant difference between the span of non-educational screen time and the academic performance of accountancy students.

Ha: There is a significant difference between the span of non-educational screen time and the academic performance of accountancy students.

An ANOVA test was conducted to test hypothesis 3, which explores whether the duration of non-educational screen time significantly affects the academic performance of accountancy students. In this study, non-educational screen time refers to time spent on entertainment-related electronic media, including social media, YouTube, and video games. The ANOVA results indicate an F-value of 5.291 with a p-value of 0.000 (see Table 12). Given that the p-value is below the significance threshold of 0.05, the null hypothesis (H_0), which suggests no significant difference between non-educational screen time and students' academic performance (CGPA) is rejected.

The analysis of CGPA distribution across different non-educational screen time categories reveals a statistically significant relationship between the duration of non-educational screen time and academic performance among accountancy students. According to Table 11, students who spent more than six hours engaged in non-educational screen activities had the highest mean CGPA of 3.219 whereas those who spent less than one hour recorded the lowest mean CGPA of 2.300. Furthermore, the mean CGPA progressively increases as non-educational screen time lengthens. For instance, students who reported 1–2 hours of non-educational screen usage had a mean CGPA of 2.746, whereas those with 3–4 hours had a higher mean CGPA of 3.055. Similarly, students who spent 5–6 hours recorded a mean CGPA of 3.031, which is slightly lower than the group exceeding six hours. These findings suggest that extended non-educational screen time may be associated with better academic performance, challenging conventional concerns about excessive screen usage.

Table 11. CGPA distribution for each non-educational screen time category

Category	N	Mean	Std. deviation	Std. error	95% confidence interval for mean		Minimum	Maximum
					Lower bound	Upper bound		
< 1 hour	10	2.300	0.675	0.213	1.817	2.783	1.000	3.000
1-2 hours	67	2.746	0.785	0.096	2.555	2.938	1.000	4.000
3-4 hours	165	3.055	0.983	0.077	2.903	3.206	1.000	4.000
5-6 hours	161	3.031	0.984	0.078	2.878	3.184	1.000	4.000
> 6 hours	233	3.219	0.905	0.059	3.102	3.335	1.000	4.000
Total	636	3.065	0.944	0.037	2.991	3.138	1.000	4.000

Table 12. ANOVA results on the effects of educational screen time on academic performance

Source of variation	Sum of squares	df	Mean square	F	Sig.
Between groups	18.380	4	4.595	5.291	0.000
Within groups	547.977	631	0.868		
Total	566.357	635			

4.3.4. Hypothesis 4

H0: There is no significant difference between students' mean scores for time management practices and their CGPAs.

Ha: There is a significant difference between students' mean scores for time management practices and their CGPAs.

The mean scores of students' time management practices for different CGPA categories (4.0, 3.0, 2.0, and 1.0) were compared, as shown in Table 13. A one-way ANOVA was conducted to determine whether there are significant differences in time management practices among students with GPAs of 4.0, 3.0, 2.0, and 1.0.

Table 13. Time management practices mean scores of students with different CGPAs

Time management strategies used by the students	Groups by CGPA							
	4.0		3.0		2.0		1.0	
	Mean	Std. dev	Mean	Std. dev	Mean	Std. dev	Mean	Std. dev
I create a study schedule.	3.06	1.147	3.23	1.019	3.22	0.969	3.23	0.964
I make a list of tasks I need to accomplish for the day.	3.20	1.265	3.33	1.122	3.39	0.952	3.23	0.978
I set specific goals and deadlines.	3.68	1.039	3.75	0.911	3.58	0.946	3.52	0.992
I prioritize my tasks.	4.12	0.795	4.08	0.812	3.83	0.839	3.66	0.954
I minimize distractions.	3.10	0.878	3.22	0.954	3.19	0.917	3.11	0.856
I avoid time wasters.	3.03	0.943	3.06	0.862	3.10	0.875	3.10	0.908
I use time management tools (e.g., planners and apps).	2.60	1.281	2.72	1.250	2.87	1.140	2.99	1.086
I seek help from friends or mentors.	2.69	1.269	2.57	1.208	2.80	1.159	2.95	1.152
Composite mean	3.19		3.24		3.25		3.22	

The ANOVA test results presented in Table 14 indicate that there is no statistically material difference in the mean scores of time management practices among students with different CGPAs (F = 0.039 and p-value = 0.989).

Since the *p*-value is greater than the significance level of 0.05, we fail to reject the null hypothesis (H0), which states that there is no significant difference between the mean scores of time management practices among students with CGPAs of 4.0, 3.0, 2.0, and 1.0. This suggests that the time management strategies employed by students are not significantly different regardless of their CGPA.

Table 14. ANOVA results on time management practices across different CGPA groups

Source of variation	Sum of squares	df	Mean squares	F	Sig.
Between groups	0.020	3	0.007	0.039	0.989
Within groups	4.754	28	0.170		
Total	4.774	31			

5. Discussion

The study reveals a predominantly female Gen Z cohort heavily reliant on laptops and iPhones for both educational and non-educational screen time consistent with broader trends. Students recognize the benefits of educational screen time, citing enhanced digital literacy and improved academic performance, mirroring the positive impacts highlighted by Noetel et al. (2021) and Tamilarasi (2023). However, the acknowledged excessiveness of non-educational screen time and its perceived negative impact on sleep quality, mental health, and academic performance align with established concerns about the detrimental effects of excessive recreational screen use (Paulich et al., 2021; Pérez-Chada et al., 2023). According to Bosse et al. (2020), Chen et al. (2021), Gutiérrez Ángel et al. (2022), Lin et al. (2021), Marciano and Camerini (2021) and Sheen et al. (2020), the identification of social media browsing, gaming, and "doom scrolling" as primary time-wasting activities reinforces the distracting nature of these platforms.

The study's most intriguing findings relate to the relationship between non-educational screen time duration and CGPA. The positive relationship between educational screen time and academic performance supports previous research linking moderate educational internet use with higher CGPA (Farooq et al., 2023). However, the positive relationship between non-educational screen time and CGPA contradicts much of the existing literature, which typically associates excessive recreational screen use with poorer academic outcomes. According toFarooq et al. (2023), this unexpected result warrants further investigation as it may indicate the influence of confounding factors, such as socioeconomic status. It could also reflect unique behaviors, particularly among high-achieving students, who might use non-educational screen time for activities that indirectly contribute to academic success or for consuming educational content in informal settings.

The study revealed no significant relationship between students' time management practices and their CGPA, challenging the well-documented positive correlation between time management practices and academic performance (Khan et al., 2019; Liu, 2024; Mariano et al., 2022). This surprising result suggests that although Cambodian accountancy students may adopt standard time management techniques, such as task prioritization and deadline setting, the success of these strategies could be shaped by additional factors not fully explored in the research. These factors might include students' ability to control screen time, minimize distractions or implement effective study methods.

6. Conclusion

This study investigated the complex relationship between screen time, time management practices, and academic performance among Cambodian accountancy students, uncovering both anticipated and surprising patterns. The unexpected positive correlation between non-educational screen time and academic performance as measured by CGPA, raises compelling questions while the findings regarding the benefits of educational screen time and the drawbacks of excessive non-educational screen time are consistent with existing literature. This contradictory result suggests the need for further investigation into potential confounding factors and unique screen usage habits, particularly among high-achieving students. It is possible that these students are engaging in non-educational online activities which indirectly contribute to their academic success.

Additionally, the study reveals a troubling pattern of excessive non-educational screen time with a significant portion of participants spending over six hours per day on such activities. Students themselves reported that this excessive use negatively affects their sleep, mental health, and academic performance emphasizing the urgent need for initiatives that encourage healthier digital habits. The lack of a significant relationship between reported time management practices and CGPA, despite the widespread use of time management strategies like prioritization and goal-setting suggests that the effectiveness of these strategies may be influenced by other factors, such as the ability to regulate screen time and manage distractions which merit further investigation.

This study contributes to the growing body of knowledge on the complex interplay between digital technology, time management, and academic outcomes. However, the cross-sectional design limits causal inferences. Future research employing longitudinal designs and objective measures of screen time is needed to explore causal relationships. Qualitative studies exploring the specific content and context of screen time usage, particularly among high-achieving students, are crucial to unpack the unexpected positive correlations observed. Finally, investigating the efficacy of tailored interventions to promote balanced screen time usage and enhance time management skills within the Cambodian educational context could offer valuable practical implications for students, teachers, and policymakers.

References

Alhammad, N., Yusof, A. B., Awae, F., Abuhassna, H., Edwards, B. I., & Adnan, M. A. B. M. (2024). E-Learning platform effectiveness: Theory integration, educational context, recommendation, and future agenda: A systematic literature review. *Reimagining Transformative Educational Spaces*, 101-118. https://doi.org/10.1007/978-981-97-8752-4_6

Baniaghil, A., Eksir, M., & Behnampour, N. (2021). Effects of time management training on the academic achievement of female high school students. *Journal of Research Development in Nursing and Midwifery, 18*(1), 40-43. https://doi.org/10.52547/jgbfnm.18.1.40

Bosse, I., Renner, G., & Wilkens, L. (2020). Social media and internet use patterns by adolescents with complex communication needs. *Language, Speech, and Hearing Services in Schools, 51*(4), 1024-1036. https://doi.org/10.1044/2020_lshss-19-00072

Brombach, R., Dietch, J., Sy, J., Trevorrow, T., & Zhou, E. (2023). 0626 Type of screen time and the relationship between anxiety, depressive and insomnia symptoms in college students. *Sleep, 46*(Supplement_1), A275. https://doi.org/10.1093/sleep/zsad077.0626

Chen, C.-Y., Chen, I.-H., Pakpour, A. H., Lin, C.-Y., & Griffiths, M. D. (2021). Internet-related behaviors and psychological distress among schoolchildren during the COVID-19 school hiatus. *Cyberpsychology, Behavior, and Social Networking, 24*(10), 654-663. https://doi.org/10.1089/cyber.2020.0497

Coulanges, L., Bachman, H. J., Libertus, M., & Votruba-Drzal, E. (2024). Examining profiles of US children's screen time and associations with academic skills. *Journal of Children and Media, 18*(2), 235-253. https://doi.org/10.1080/17482798.2024.2327021

Farooq, M., Ahmad, T. I., & Jahan, M. (2023). An empirical investigation of the relationship between students' digital consumption time and their academic outcome. *iRASD Journal of Educational Research, 4*(1), 01-09. https://doi.org/10.52131/jer.2023.v4i1.2195

Goforth, C. (2015). *Using and interpreting Cronbach's alpha. University of Virginia Library.* Retrieved from https://data.library.virginia.edu/using-and-interpreting-cronbachs-alpha/

Gutiérrez Ángel, N., Mercader Rubio, I., Trigueros Ramos, R., Oropesa Ruiz, N. F., García-Sánchez, J. N., & García Martín, J. (2022). Digital competence, use, actions and time dedicated to digital devices: Repercussions on the interpersonal relationships of Spanish adolescents. *International Journal of Environmental Research and Public Health, 19*(16), 10358. https://doi.org/10.3390/ijerph191610358

Howie, E. K., Joosten, J., Harris, C. J., & Straker, L. M. (2020). Associations between meeting sleep, physical activity or screen time behaviour guidelines and academic performance in Australian school children. *BMC Public Health, 20*, 1-10. https://doi.org/10.1186/s12889-020-08620-w

Ishii, K., Aoyagi, K., Shibata, A., Javad Koohsari, M., Carver, A., & Oka, K. (2020). Joint associations of leisure screen time and physical activity with academic performance in a sample of Japanese children. *International Journal of Environmental Research and Public Health, 17*(3), 757. https://doi.org/10.3390/ijerph17030757

Khan, I. A., Zeb, A., Ahmad, S., & Ullah, R. (2019). Relationship between university students time management skills and their academic performance. *Review of Economics and Development Studies, 5*(4), 853-858.

Lin, Y., Liu, Y., Fan, W., Tuunainen, V. K., & Deng, S. (2021). Revisiting the relationship between smartphone use and academic performance: A large-scale study. *Computers in Human Behavior, 122*, 106835. https://doi.org/10.1016/J.CHB.2021.106835

Liu, D. (2024). Optimizing learning: A meta-analysis of time management strategies in university education. Pupil: International Journal of Teaching, Education and Learning. *Proc. of Teaching and Educational Research Association (TERA). Rajasthan, India, Global Research and Development Services Publishing*, 140-141. https://doi.org/10.20319/ictel.2024.140141

Liu, S., Lan, Y., Chen, B., He, G., & Jia, Y. (2022). Smartphone Use Time and total screen time among students aged 10–19 and the effects on academic stress: A large longitudinal cohort study in Shanghai, China. *Frontiers in Public Health, 10*, 869218. https://doi.org/10.3389/fpubh.2022.869218

Mao, Y., Xie, B., Chen, B., Cai, Y., Wu, J., Zhang, J., . . . Li, Y. (2022). Mediating effect of sleep quality on the relationship between electronic screen media use and academic performance among college students. *Nature and Science of Sleep, 14*, 323-334. https://doi.org/10.2147/NSS.S346851

Marciano, L., & Camerini, A.-L. (2021). Recommendations on screen time, sleep and physical activity: Associations with academic achievement in Swiss adolescents. *Public Health, 198*, 211-217.

Mariano, L. A., Madel, N. S., & Miranda, A. T. (2022). The relationship between time management skills and academic performance of working students in open high school program. *Asian Journal of Education and Social Studies, 36*(2), 61-66. https://doi.org/10.9734/ajess/2022/v36i2776

Noetel, M., Griffith, S., Delaney, O., Sanders, T., Parker, P., del Pozo Cruz, B., & Lonsdale, C. (2021). Video improves learning in higher education: A systematic review. *Review of Educational Research, 91*(2), 204-236. https://doi.org/10.3102/0034654321990713

Patterson, N., & Warnakulasuriya, S. (2022). Screen time and associated health problems among undergraduates of University of Sri Jayewardenepura, Sri Lanka. *Sri Lankan Journal of Nursing, 1*(1), 21-32.

Paulich, K. N., Ross, J. M., Lessem, J. M., & Hewitt, J. K. (2021). Screen time and early adolescent mental health, academic, and social outcomes in 9-and 10-year old children: Utilizing the Adolescent Brain Cognitive Development℠(ABCD) Study. *PloS One, 16*(9), e0256591. https://doi.org/10.1371/journal.pone.0256591

Pérez-Chada, D., Bioch, S. A., Schönfeld, D., Gozal, D., Perez-Lloret, S., & Group, S. i. A. C. S. (2023). Screen use, sleep duration, daytime somnolence, and academic failure in school-aged adolescents. *PloS One, 18*(2), e0281379. https://doi.org/10.1371/journal.pone.0281379

Sheen, A., Ro, G., Dos Santos, A. C. Z. P., Kagadkar, F., & Zeshan, M. (2020). 51.15 screen time in the context of Covid-19: The good, the bad, and the ugly. *Journal of the American Academy of Child and Adolescent Psychiatry, 59*(10), S255. https://doi.org/10.1016/j.jaac.2020.08.425

Singh, S., Balhara, Y. P. S., Kattula, D., Ganesh, R., Bhargava, R., Abhijita, B., . . . Gupta, A. (2022). Impact of COVID-19 pandemic on screen time: Findings from a cross-sectional observational study among college students from India. *Journal of Gambling Issues, 49*.

Tamilarasi, M. (2023). Mobile empowerment: Enhancing education and connectivity for college students. *International Journal of English Literature and Social Sciences, 8*(3), 294-300. https://doi.org/10.22161/ijels.83.48

Timotheou, S., Miliou, O., Dimitriadis, Y., Sobrino, S. V., Giannoutsou, N., Cachia, R., . . . Ioannou, A. (2023). Impacts of digital technologies on education and factors influencing schools' digital capacity and transformation: A literature review. *Education and Information Technologies, 28*(6), 6695-6726. https://doi.org/10.1007/s10639-022-11431-8

Trentepohl, S., Waldeyer, J., Fleischer, J., Roelle, J., Leutner, D., & Wirth, J. (2022). How did it get so late so soon? The effects of time management knowledge and practice on students' time management skills and academic performance. *Sustainability, 14*(9), 5097. https://doi.org/10.3390/su14095097

Wang, H., Bragg, F., Guan, Y., Zhong, J., Li, N., Pan, J., & Yu, M. (2023). Association between duration of electronic screen use for non-educational purposes and depression symptoms among middle and high school students: A cross-sectional study in Zhejiang Province, China. *Frontiers in Public Health, 11*, 1138152. https://doi.org/10.3389/fpubh.2023.1138152

Wilson, R., Joiner, K., & Abbasi, A. (2021). Improving students' performance with time management skills. *Journal of University Teaching and Learning Practice, 18*(4). http://doi.org/10.53761/1.18.4.16

Zubair, T., Qazi, U., Faisal, S. M., & Khan, A. K. (2024). The impact of study hours on academic performance: A statistical analysis of students' grades. *International Journal of Multidisciplinary Research and Growth Evaluation, 5*(3), 720-728. https://doi.org/10.54660/.IJMRGE.2024.5.3.720-728