

Journal of Kolkata Society for Asian Studies: Vol 11. No. 1, June 2025

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Gender and Locality

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Abstract:

People are concerned about spending too much time on screens, thus prevention and awareness raising are important. This study used questionnaires to examine the screen time habits of 764 eleventh-grade students in West Bengal's Nadia region. Females and rural students outnumbered males in the 1–5 hour range, whereas males and rural students led the 6–10 hour group. There were differences between pupils in rural and urban areas, although awareness of screen time was consistent across genders. Students, both male and female, had different opinions on how much time they spent on screens. Gender had an impact on screen time habits, but patterns were similar in rural and urban areas. The study concludes that the advantages of technology can be realized without sacrificing health, highlighting the necessity of a balanced approach to knowledge, attitude, and practice for a long-lasting relationship with the digital world.

Keywords: *Screen Time, Knowledge, Attitude, Practice.*

I. Introduction:

Advances in science and technology have boosted the progress of education in a different way. In today's society, it has become almost impossible to imagine education without technology, especially since the COVID-19 pandemic has made education much more digital. The COVID-19 epidemic has significant changes in people's daily lifestyles. Implementation of lockdowns and social distancing measures, individuals are spending more time at home. As a result, the reliance on screens for work, education, entertainment, and social interactions has substantially increased. The widespread adoption of remote work and online learning has contributed to the rise in screen time. Many professionals are doing work from home, relying heavily on digital platforms and virtual meetings to carry out their tasks. Moreover, the limited social interactions and recreational opportunities due to the pandemic have further propelled the enlargement of screen time (Sultana et al., 2021). People are turning to digital platforms for socializing, connecting with friends and

family and engaging in virtual events. Additionally, the popularity of streaming services, online gaming, and social media has surged, contributing to prolonged screen usage (Sultana et al., 2021). Similarly, students have transitioned to online classes, requiring them to spend extended hours in the appearance of screens for lectures, assignments, and exams. The traditional education system i.e., the practice of sharing knowledge between teachers and students sitting in the classroom has completely changed and has become online synchronous and asynchronous learning. That makes it even more imperative than necessary for every student to use technology more. Students finish their usual classes seated in appearance of a screen, which has led to a significant increase in the amount of time they spend staring at screens each day. According to estimates, teenagers between the ages of 11 and 17 spent an additional 0.9 hours a day on digital devices during the pandemic. This indicates that the epidemic contributed to the development of screen time habits in these young people (luaet al., 2023).

The duration of time an individual spends in bearing of a screen is known as screen time. This can be called the duration of time an individual spends in front of any electronic device (TV, laptop, computer, etc.). The consequences of this heightened screen time are a subject of concern. Prolonged exposure to screens can spearhead to various health issues, encompass with eye strain, headaches, disrupted sleep patterns, and sedentary behaviour (Nakshineet al., 2022). Numerous studies have highlighted that screen time is an important indicator of various health risks such as hypertension, heart problems, depression, anxiety, poor sleep quality etc., (Arrippinet al., 2021). It is crucial for individuals to be aware of the potential risks associated with excessive screen time and take necessary measures to mitigate them. There is no doubt that adolescents are spending increasingly more time watching screens every day, so it is important to determine how much knowledge, attitude, and practice (KAP) they have about the use of screens.

II. Objectives of The Study:

The objectives of the study are as follows-

- To analyze the usage of screen time among XI-grade students based on their gender and locality.
- To find out the knowledge about screen time among XI-grade students of Nadia district.
- To find out the attitude towards screen time among XI-grade students of Nadia district.
- To find out the practice of screen time among XI-grade students of Nadia district.

III. Hypothesis of the Study:

The main hypothesizes of the study are as follows-

H₀₁: There are no notable disparities between the male and female student groups when it comes to their levels of knowledge regarding screen time.

H₀₂: There are no notable disparities between the rural and urban student groups when it comes to their levels of knowledge regarding screen time.

H₀₃: There are no appreciable differences between the attitudes of male and female students regarding screen time.

H₀₄: There are no appreciable differences between the attitudes of rural and urban students regarding screen time.

H₀₅: The screen time practices of male and female students show no substantial differences.

H₀₆: The screen time practices of rural and urban students show no substantial differences.

IV. Materials and Method of The Study:

The goal of the study was to ascertain the eleventh-grade students' knowledge, attitudes, and practices about screen time. The study was conducted by the researcher on teenage pupils attending school in both rural and urban areas. The sample of the study comprised 764 adolescent eleventh-grade students who belong to the Nadia district, West Bengal. The main method utilized in this study was a survey. This study used questionnaires with particular factors to obtain meaningful results. For this study researcher conducted a measuring tool/scale regarding knowledge, attitude, and practice about screen time which is divided into 3 parts and consists of 30 items. The tool reported high reliability. To know more about the scale check the article named "Screen time: analysis of items regarding knowledge, attitude and practice" (Karmakar et al., 2022). The scores were calculated depending on how well the sample students performed or answered the offered questionnaires to interpret the scenario. Thus, a quantitative technique and descriptive research design were used in this study. As a result, the study is quantitative and uses a descriptive survey approach. The researcher computed descriptive statistics (mean, standard deviation, and z-score) using the statistical program SPSS version 25.0 to ascertain the degree of knowledge, attitude, and practice about screen time. The t-tests were used in inferential statistics to compare two groups based on demographic variables like gender and rural/urban differences. These techniques enable the testing of hypotheses using inferential statistics.

V. RESULTS:

The results are discussed through the objectives and hypothesis of the study. The study has four objectives. The first objective is discussed through descriptive statistics and the other three objectives are discussed through hypothesis.

The Usage Variations of Screen Time:

The first objective focuses on how male and female students who live in rural and urban areas use screens. The aim was to present the usage percentages of male and female pupils. The study split the time period into two groups: 1–5 hours and 6–10 hours. The differences in screen usage between male and female students according to their location are displayed in the tables below.

Table 1: 1 to 5 hours usage variations of screen time

	Frequency	Percent	Time
Male	286	41.0	1-5 Hours
Female	411	59.0	
Rural	384	55.1	
Urban	313	44.9	

Students by gender and by location using a proportion of their screen time is shown in Table 1. In terms of screen usage for one to five hours, the table shows that 59.0% of female students and 41.0% of male students used screens, suggesting that female students used screens more frequently than male students. Based on the statistics shown in the table, it can be inferred that 55.1% of students in rural areas and 44.9% of students in urban areas saw screens of one to five hours each day. It would appear from this that pupils in rural areas use screens more often than those in urban areas.

Table 2: 6 to 10 hours usage variations of screen time

	Frequency	Percent	Time
Male	52	77.6	6-10 Hours
Female	15	22.4	
Rural	37	55.2	
Urban	30	44.8	

The percentage of screen time used by male-female and rural-urban pupils is shown in Table 2. Male students viewed screens more frequently than female students, as the table shows that

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22.4% of female students and 77.6% of male students used screens for six to ten hours daily. According to the data, 55.2% of students in rural areas and 44.8% of students in urban areas used screens for six to ten hours apiece, suggesting that rural students use screens more frequently than their urban counterparts.

Table 3: Knowledge about screen time

	Hypothesis	Gender & Locality	N	Mean	SD	Std. Error Mean	t	df	Sig (2- tailed)
Knowledge	H ₀₁	Male	338	6.83	2.367	0.129	0.767	762	0.443
		Female	426	6.70	2.276	0.110			
	H ₀₂	Rural	421	6.58	2.230	0.109	2.350	762	0.019
		Urban	343	6.98	2.402	0.130			

Table 3 shows group statistics i.e. number of samples mean, standard deviation, standard error of the mean, t-value, df, and significance level value of male-female and rural-urban students about their knowledge regarding screen time. The case of H₀₁ shows that t-value is not statistically significant, so null hypothesis H₀₁ is accepted (t= 0.767, df= 762, P>0.05). It indicates that there is no male-female differences in knowledge about screen time. On the other hand, H₀₂ indicates that the t-value is statistically significant, so null hypothesis H₀₂ is rejected (t= 2.350, df= 762, P<0.01). It indicates that there is a difference between rural and urban students in knowledge about screen time.

Table 4: Attitude towards screen time

	Hypothesis	Gender & Locality	N	Mean	SD	Std. Error Mean	t	df	Sig (2- tailed)
Attitude	H ₀₃	Male	338	39.65	4.985	0.271	5.776	762	0.000
		Female	426	37.70	4.322	0.209			
	H ₀₄	Rural	421	38.16	4.623	0.225	2.644	762	0.008
		Urban	343	39.06	4.805	0.259			

Table 4 displays group data, including the number of samples, mean, standard deviation, standard error of the mean, t-value, df, and significance level value of the attitudes of male and female students towards screen time in rural and urban areas. Since the t-value in this instance of H₀₃ is statistically significant, the null hypothesis is rejected (t=5.776, df=762, P<0.01). It suggests that attitudes towards screen time differ between male and female students. Null hypothesis H₀₄ (t= 2.644, df= 762, P<0.01) is rejected since the H₀₄ shows that the t-value is statistically significant. It suggests that attitudes towards screen time differ between rural and urban areas.

Table 5: Practice about screen time

	Hypothesis	Gender & Locality	N	Mean	SD	Std. Error Mean	t	df	Sig (2- tailed)
Practice	H ₀₅	Male	338	3.67	1.302	0.071	5.416	762	0.000
		Female	426	3.10	1.559	0.076			
	H ₀₆	Rural	421	3.39	1.515	0.074	-0.880	762	0.379
		Urban	343	3.30	1.430	0.077			

The group data of male-female and rural-urban students who practice screen time are displayed in Table 5, along with the number of sample means, standard deviation, standard error of the mean, t-value, df, and significant level value. The aforementioned table indicates that the t-value for H₀₅ is statistically significant, leading to the rejection of the null hypothesis (t=5.416, df=762, P<0.01). It suggests that there are differences in screen time practices between male and female students. The null hypothesis, H₀₆, is accepted since the H₀₆ indicates that the t-value is not statistically significant (t=-0.880, df=762, P>0.05). It suggests that there are no differences in the screen time practices of pupils in rural and urban areas.

VI. Discussion:

The intellectual core is found in the discussion section, which conducts a thorough examination and interpretation of the findings from the previous section. This section carefully evaluates the findings, makes inferences, and situates them in a larger framework. It considers its relevance in the context of the broader scholarly and practical landscape, synthesizes the consequences, and constructs a narrative that adds to the current scholarly discourse. The ability to understand the material, conduct a critical analysis, and significantly advance the field's intellectual discourse is embodied in the discussion part.

Table 1 represents the percentage of screen time used by male and female students. Here we see that under 1-5 hours male usage percentage was 41.0% and the female usage percentage was 59.0, which means the male usage percentage was lower than female usage. This may be due to several social conventions, cultural elements, and individual preferences. Social media platforms offer a space for interpersonal interaction and conversation, which may appeal more to women. However, women may find this area more vulnerable to social comparison and the requirement for social validation. Visual material is extensively emphasized on several social media platforms, including Facebook and Instagram. Females may be more drawn to visually focused communication, which may lead to higher levels of engagement. This is supported by Reyes et al., (2022) and Svensson

et al., (2022). They looked at social media and digital platform usage patterns in relation to gender differences, but they did not specifically address screen time. This is included as a reference because social media is a platform that can lead to an increase in screen time. On the other hand, the table shows 5-6 hours per day of screen time consumption by rural-urban students. In this regard, we see that 55.1% of rural and 44.9% of urban students used screens for one to five hours apiece. This suggests that rural students use screens more frequently than their urban counterparts. Students' access to conventional educational materials may be restricted in some remote places. Online courses, educational materials, and other learning resources that might not be easily accessible locally can be accessed by them through digital platforms. Connecting with peers locally and worldwide can be facilitated for rural students through digital platforms. Online jobs and access to scholarship and vocational training information are only a couple of the economic options that may be obtained through digital platforms. Using these platforms to investigate such opportunities may inspire kids in rural areas. Certain remote communities may have restricted access to entertainment alternatives. Students in rural areas may use digital platforms more frequently since they provide a variety of entertainment options, such as gaming and streaming services. This result is in close agreement with the other studies Laon, (2011); Patil et al., (2019); Thomas et al., (2020). Another Table 2 showed 6-10 hours of screen time used by male-female students and rural-urban students respectively. The table indicate that 22.4% of female students and 77.6% of male students utilized screens for 6 to 10 hours each, indicating that male students viewed screens more frequently than female students. Males have traditionally been more inclined to play video games. It's possible that boys are more lured to digital platforms for gaming, which raises user engagement levels Leonhardt and Overa, (2021). Here 55.2% of rural students and 44.8% of urban students utilized screens for 6 to 10 hours each, indicating that rural students viewed screens more frequently than urban students. The previous stanza discussed the reason behind rural students use screens more than urban students. This agreement is also supported by Patwari, (2020).

In this regard, the knowledge scale has two hypothesis. The H_{01} is about the overall knowledge score difference between male and female students, table 3 shows that there is no significant difference between male and female students ($p= 0.443$, $p>0.05$). It may be assignable to the enlarged integration of technology into daily life, people of both genders are gaining information about digital media and screen time. The cognitive skills of men and women significantly overlap. Research indicates that, overall, gender differences in cognitive ability are less common than similarities. However, individual disparities may still exist. Gender is not a barrier to knowledge access in modern culture. Equal chances exist for men and women to learn about and comprehend ideas associated with digital media, technology, and screen time. Education and awareness

campaigns have sought to guarantee that women and men alike are provided with equal access to information and understanding on a range of topics, including technology and screen time. Media, educational institutions, and other venues work hard to deliver impartial information. People of all genders can access and use the ubiquitous modern technologies. The result is also inconsistent with other studies Popa and Gavrilu, (2015). Thus the null hypothesis H_{01} is accepted at a 0.05 level.

The hypothesis H_{02} is about the differences between rural and urban students' knowledge scores. The table shows that there is a difference between rural and urban students in knowledge about screen time ($p=0.019$, $p<0.05$). So the null hypothesis H_{02} is rejected and alternative hypothesis are accepted. Disparities in digital media usage among pupils in rural and urban areas have numerous issues pertaining to infrastructure, resource accessibility, socioeconomic circumstances, and educational possibilities. These results were also supported by Liao et al., (2016); Sharma and Banerjee, (2022); Rundel and Salemin, (2021).

The attitude part of the study also has two hypothesis. Hypothesis H_{03} is about the attitude toward screen time of 11th-grade students. The result shows that there is a significant difference between attitude scores ($p=0.000$, $p<0.05$). Here the null hypothesis is rejected and the alternative hypothesis is accepted. Hypothesis H_{04} is about rural-urban students' attitude differences. This hypothesis was also rejected at 0.05 level ($p=0.008$, $p<0.05$). So it signifies that the overall male-female and rural-urban students' attitude disparities exist. It may be influenced by a combination of societal, cultural, and individual factors. This result is in close agreement with the other studies by Berges et al., (2020); Anjitha and Tiwari, (2022); Bond, (2019); and Hadi et al., (2021).

The practice part also has two hypothesis. The H_{05} (male-female) were rejected ($p=0.000$, $p<0.01$). Hence alternative hypothesis was accepted. There is a multitude of factors, including societal, cultural, psychological, and individual elements that can impact the differences in screen time practices between males and girls. Gender role expectations can be influenced by societal and cultural conventions. Children are conditioned from an early age to fit into particular gender roles. Differing practices around screen usage might be attributed to upbringing and parental expectations. People's ideas about what constitutes proper screen time activities might be influenced by how gender is portrayed in media, such as TV shows, movies, and commercials. Practices about screen time may change if specific categories of screen-related content are more closely linked to one gender than the other. Inequalities in digital literacy and technology availability may be a factor in the variations in screen time habits. This result is in close agreement with the other studies by Hadi et al., (2021); Cui et al., (2022). On the other hand H_{014} (rural-urban), were accepted at 0.05 level of significance. The p-value of the hypothesis are 0.379. It means there are no significant

differences exist. It may be due to covid-19 pandemic. After the lockdown all students are used to online learning so in school student's perspectives there is no significant difference between rural-urban students screen time practice.

VII. Conclusion:

Conclusively, a crucial element of our contemporary digital era is the complex interaction among knowledge, attitude, and practice concerning screen time. Nuanced knowledge is necessary to promote a healthy and balanced relationship with technology as people, communities, and civilizations struggle with the effects of excessive screen time. Making educated decisions is based on having the necessary knowledge. Being aware of the negative effects of excessive screen time, like strained eyes, irregular sleep patterns, and social isolation, gives people the power to choose carefully how they interact with technology. Campaigns for education and easily accessible data are essential in giving individuals the knowledge and skills they need to appropriately navigate the digital world. Screen time attitudes have a big impact on behavior. A healthy attitude towards technology use is fostered by fostering a positive mind-set that values a harmonious fusion of digital and offline activities. Promoting moderation and mindfulness can assist people in gaining a balanced viewpoint and understanding the advantages of technology while being aware of its possible downsides. In the end, the key to striking a healthy balance between screen time and other activities is to put knowledge and optimistic attitudes into practice. People must deliberately put screen time management techniques into practice, such as creating reasonable usage targets, scheduling regular breaks, and encouraging in-person contacts. Additionally, communities and organizations, whether via job regulations, educational programs, or public awareness campaigns have a part to play in fostering settings that encourage responsible screen time practices.

Understanding how technology is changing and how it affects our lives is crucial for managing the challenges associated with screen time. People will be able to take advantage of technology without sacrificing their general well-being in a society that is built on ongoing introspection, adaptation, and a shared dedication to promoting a culture of responsible digital involvement. Maintaining a lasting and positive relationship with the digital world going ahead will depend critically on finding a balance between knowledge, attitude, and practice.

V. Acknowledgement:

We sincerely appreciate the tremendous instruction provided by Dr. Santosh Mukherjee, Principal of Krishnagar B. Ed College in Nadia, West Bengal. We are grateful to our colleagues for their informative remarks, which improved the study's overall quality.

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