FACULTY OF COMPUTING
UTM Johor Bahru

SECI1143: PROBABILITY & STATISTICAL DATA ANALYSIS

2023/2024 – Semester 2

PROJECT 1 (5%): Assessment Rubric

List Group Members:	**TOTAL MARKS (30)**
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-EVALUATIONS

Part A: Data Type		
Type	**No. of questions**	**Mark**
Nominal	(any)	**2**
Ordinal/Interval	< 3	**3**
	>= 3	**4**
Ratio	< 4	**3**
	>= 4	**4**
Total	[/ 10] * 5 =	
Part B: Data - Graphical Presentation		
Type	**Mark**	
Bar Chart/Pie Chart	**2**	
Scatter Plot	**2**	
Stem-and-Leaf / Dot plot	**2**	
Box Plot	**2**	
Frequency Distribution	**2**	
Histogram	**2**	
Total	[/12] * 10 =	

Part C: Format & Content of Report				
Item	**Mark**			
Introduction	**1**	**2**	**3**	**4**
Focus on topic (Content)	**1**	**2**	**3**	**4**
Support for topic (Content)	**1**	**2**	**3**	**4**
Conclusion (Organization)	**1**	**2**	**3**	**4**
Grammar & Spelling (Conventions)	**1**	**2**	**3**	**4**
Total	[/20] * 15 =			

Reference – Elements of Rubric:

Part C: **Format & Content of Report**

CATEGORY	4	3	2	1
Introduction (Organization)	The introduction is inviting, states the main topic & position and previews the structure of the paper.	The introduction clearly states the main topic & position and previews the structure of the paper, but is not particularly inviting to the reader.	The introduction states the main topic or position, but does not adequately preview the structure of the paper nor is it particularly inviting to the reader.	There is no clear introduction of the main topic, position or structure of the paper.
Focus on Topic (Content)	There is one clear, well-focused topic. Main idea stands out and is supported by detailed information.	Main idea is clear but the supporting information is general.	Main idea is somewhat clear but there is a need for more supporting information.	The main idea is not clear. There is a seemingly random collection of information.
Support for Topic (Content)	Relevant, telling, quality details give the reader important information that goes beyond the obvious or predictable.	Supporting details and information are relevant, but one key issue or portion of the storyline is unsupported.	Supporting details and information are relevant, but several key issues or portions of the storyline are unsupported.	Supporting details and information are typically unclear or not related to the topic.
Conclusion (Organization)	The conclusion is strong and leaves the reader with a feeling that they understand what the writer is "getting at."	The conclusion is recognizable and ties up almost all the loose ends.	The conclusion is recognizable, but does not tie up several loose ends.	There is no clear conclusion, the paper just ends.
Grammar & Spelling (Conventions)	Writer makes no errors in grammar or spelling that distract the reader from the content.	Writer makes 1-2 errors in grammar or spelling that distract the reader from the content.	Writer makes 3-4 errors in grammar or spelling that distract the reader from the content.	Writer makes more than 4 errors in grammar or spelling that distract the reader from the content.

CONTENTS

1.0 Introduction

In today's digital age, we are all familiar with using screens like phones, tablets, and computers for various tasks. Understanding the impact of screen time on academic performance has become increasingly important. As students at UTM pursuing various degree programs, we are constantly exposed to screens through our devices, whether for studying, communication, or entertainment. Therefore, our project, titled “The Effects of Screen Time on Academic Performance for UTM degree students,” aims to understand how the amount of time spent on screens affects our academic achievements and overall learning experience.

For this project, we conducted a survey among numerous UTM students to gather information about their screen time habits, study routines, demographic details, and perceptions regarding how device usage affects their academic performance. We were particularly interested in exploring whether there's a correlation between device usage time and students' GPA, study habits, sleep habits and perceived impact on learning. We created the questionnaires via Google Forms and distributed them among UTM undergraduates through platforms like WhatsApp and Telegram. In total, we received 72 replies for this survey. Our expectation for the data is to find out if screen time is more beneficial for students rather than dragging down their academic performance.

2.0 Data Collection

Methodology

To collect data for this project, our group conducted a survey through Google Form and distributed it to all undergraduate students at UTM in certain groups, such as our college group, faculty group, and so on. The survey contains some parts, which are respondent information and their opinion on the effect of screen time on academic performance. The attached table below contains the specifics of the questions we asked in the Google Form and their level of measurements.

No.	Question	Answer	Level of Measurements
1.	Gender	● Male ● Female	Nominal
2.	Age	● Short answer	Ratio
3.	Ethnicity	● Malay ● Chinese ● Indian ● Others	Nominal
4.	Which faculty are you from?	● All faculty at UTM	Nominal
5.	What year are you now?	● Year 1 ● Year 2 ● Year 3 ● Year 4	Nominal
6.	Learning style	● Visual ● Auditory ● Read/write ● Kinaesthetic	Nominal
7.	What device do you have?	● Smartphone ● Laptop ● Tablet/ipad	Nominal
8.	Do you frequently use your device?	● 1 (Strongly disagree) - 5 (Strongly agree)	Ordinal
9.	What is your daily average screen time in a week?	● Time	Ratio

10.	What do you mostly/usually do with your device?	• Entertainment • Education • Financial Management • Others	Nominal
11.	At what time do you use your device?	• 4 - 8 a.m • 8 - 12 p.m • 12 - 4 p.m • 4 - 8 p.m • 8 - 12 a.m • 12 - 4 a.m	Interval
12.	Do you study often?	• 1 (Strongly disagree) - 5 (Strongly agree)	Ordinal
13.	What is your current cgpa?	• Short answer	Ratio
14.	At what time do you usually study?	• 4 - 8 a.m • 8 - 12 p.m • 12 - 4 p.m • 4 - 8 p.m • 8 - 12 a.m • 12 - 4 a.m	Interval
15.	What is your daily average study time in a week?	• Time	Ratio
16.	How many hours do you sleep daily?	• 0 - 2 hours • 3 - 5 hours • 6 - 8 hours • Others	Ratio
17.	At what time do you sleep?	• 8 - 10 p.m • 11 - 1 a.m • 2 - 4 a.m • Others	Interval
18.	Do you think your device screen time affects your academic performance negatively?	• Yes • Maybe • No	Nominal

3.0 Data Analysis

3.1 Respondent Background

3.1.1 Respondents' Gender

Gender	Frequency	Percentage
Male	12	16.7%
Female	60	83.3%
Total	**72**	**100.0%**

Table 3.1.1.1 shows Frequency and Percentage of Respondents Gender

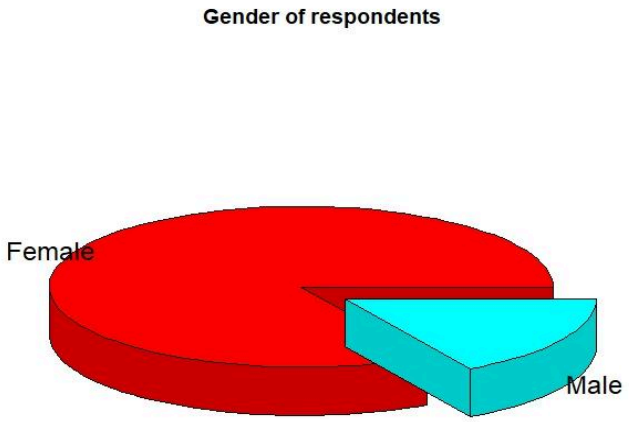

Figure 3.1.1.1 shows Pie chart of Gender of Respondents

The frequency and percentage of respondents' gender that our group obtained are shown in the Table and Figure of 3.1.1.1 above. Among the total respondents, 12 are male (16.7%), and the remaining 60 are female (83.3%). The survey had been filled by 72 people in total. According to the pie chart above, blue signifies male and red signifies female.

3.1.2 Respondents' Age

Age	Frequency
19	4
20	40
21	13
22	9
23	3
24	1
25	1
29	1
Total	**72**

Table 3.1.2.1 shows Frequency of Respondents' Age

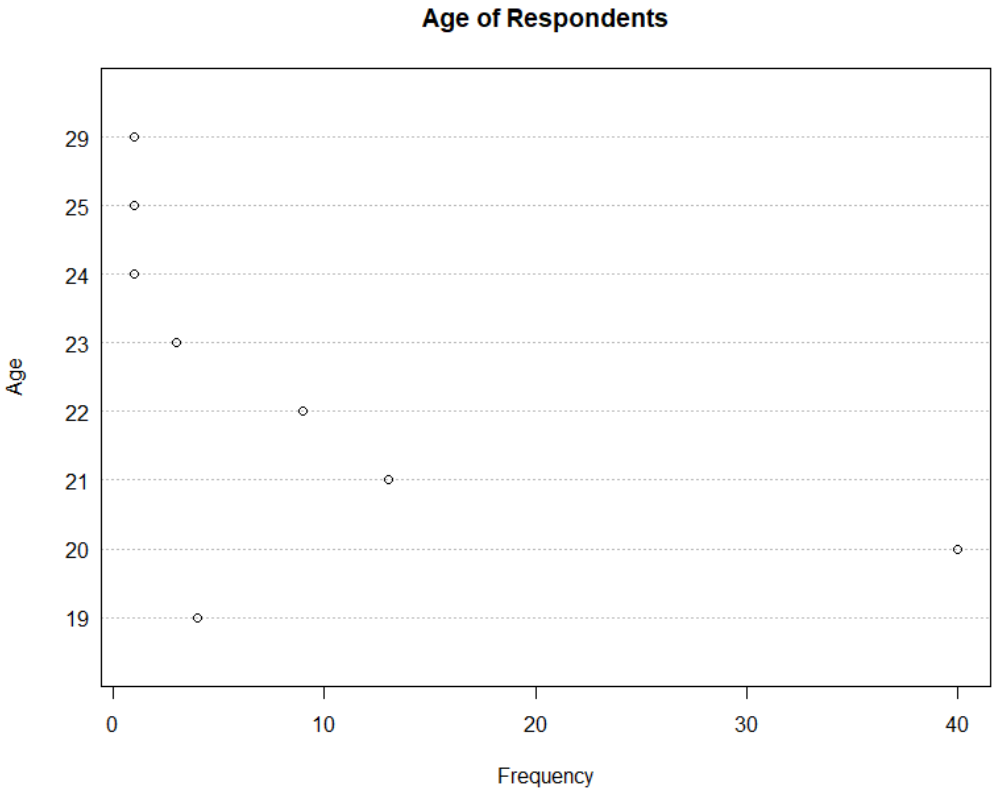

Figure 3.1.2.1 shows Dot Plot of Age of Respondents'

Measure of Central Tendency	Value
Mode	20
Median	20
Mean	20.75

Table 3.1.2.2 shows the Measurement of Central Tendency of Respondents' Age

The Table and Figure 3.1.2.1 above illustrate the age range of responders from 19 to 29 years old. Considering our target research is based on undergraduate students at UTM, most of the respondents that filled the survey are in their age of 20 with the frequency of 40, which means most of them are in their first year of studies. The second highest is from the age of 21 which holds the frequency of 13 respondents and followed by 9 respondents which are from the age of 22. Next, there are 4 respondents from the age of 19 and 3 respondents are from the age of 23. The rest of the respondents are in the age of 24, 25, and 29 which each of them maintains the frequency of 1 respondents respectively. Furthermore, the data measurement that we have obtained in Table 3.1.2.2 shows that the majority of the respondents who have responded to the survey are under the age of 20, with the mode and median being 20 and the mean being 20.75.

3.1.3 Respondents' Ethnicity

Ethnic	**Frequency**	**Percentage**
Malay	51	70.8%
Chinese	14	19.4%
Indian	2	2.8%
Bumiputera	1	1.4%
Dusun	2	2.8%
Kadazan	1	1.4%
Indonesian	1	1.4%
Total	**72**	**100.0%**

Table 3.1.3.1 shows Frequency of Respondents' Ethnicity

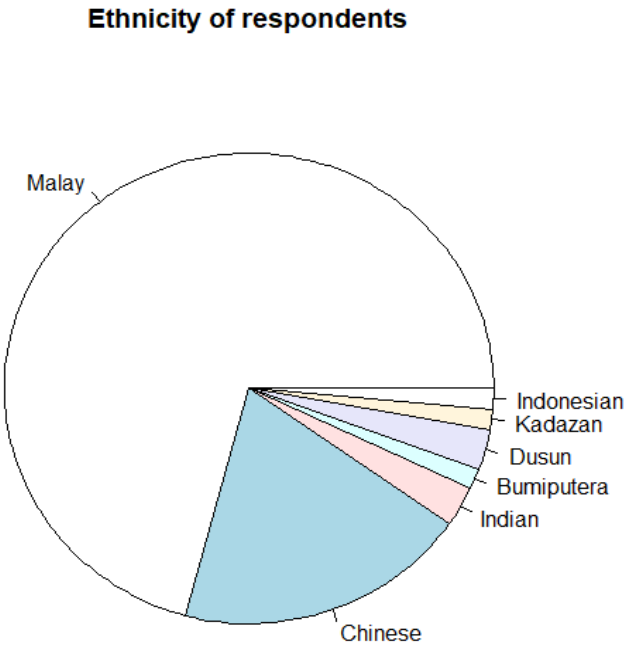

Figure 3.1.3.1 shows Pie Chart of Ethnicity of Respondents'

According to the Table and Figure in 3.1.3.1 above, the majority of survey respondents are Malay, with a frequency of 51 (70.8%). Meanwhile, there are 14 Chinese respondents (19.4%) and 2 Indian respondents (2.8%). Aside from that, Dusun respondents have a frequency of 2 (2.8%). The other respondents are Bumiputera, Kadazan, and Indonesian, with a frequency of 1 (1.4%) each.

3.1.4 Respondents' Faculty

Faculty	Frequency	Percentage
Faculty of Computing	35	48.6%
Faculty of Science	7	9.7%
Faculty of Social Science & Humanities	9	12.5%

Faculty of Management	1	1.4%
Faculty of Civil Engineering	1	1.4%
Faculty of Mechanical Engineering	3	4.2%
Faculty of Chemical & Energy Engineering	10	13.9%
Faculty of Electrical Engineering	1	1.4%
Faculty of Built Environment & Surveying	5	6.9%
Total	**72**	**100.0%**

Table 3.1.4.1 shows the Frequency of Respondents' Faculty

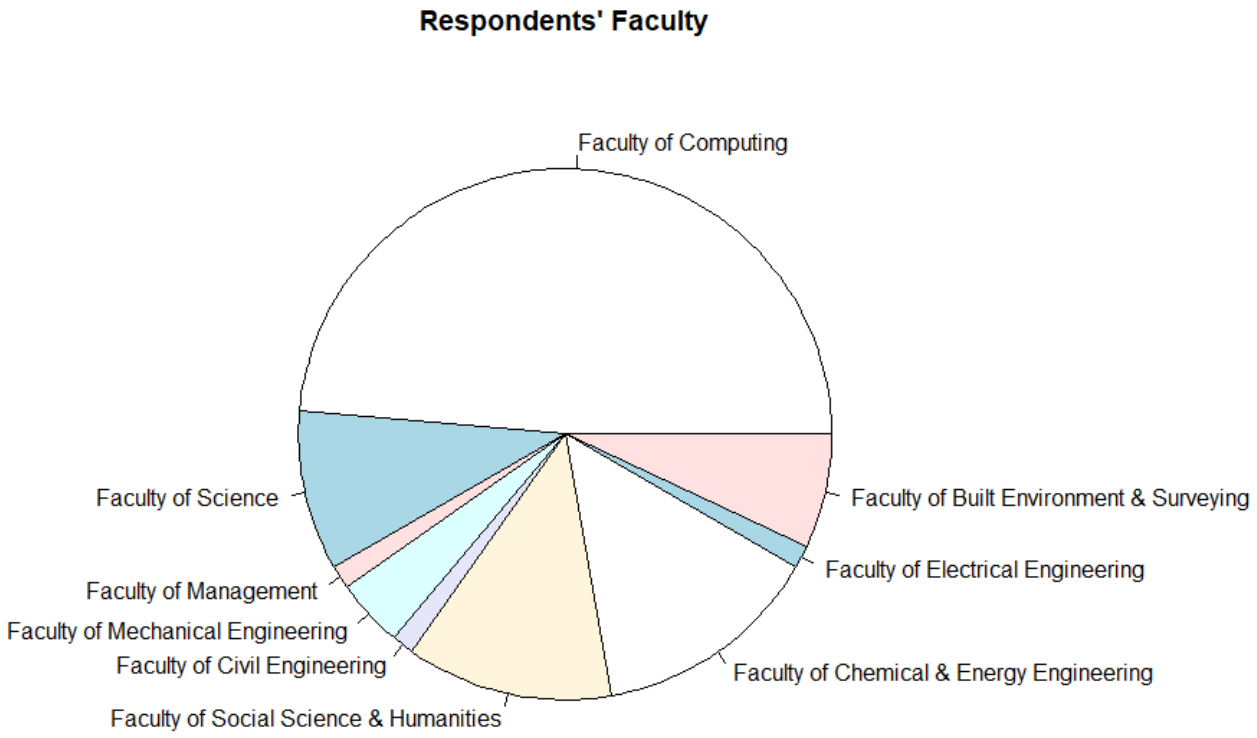

Figure 3.1.4.1 shows Pie Chart of Respondents' Faculty

As can be seen from the Figure and Table 3.1.4.1 above, the majority of respondents are from the Faculty of Computing with the frequency of 35 (48.6%). The second highest are from the Faculty of Chemical & Energy Engineering with the frequency of 10 (13.9%) while there are 9 respondents from the Faculty of Social Science & Humanities with the percentage of 12.5%. Next, there are also respondents from the Faculty of Science, Faculty of Mechanical Engineering, and Faculty of Built Environment & Surveying with the frequency of 7 (9.7%), 3 (4.2%), and 5 (6.9%) respectively for each of them. In addition, there are respondents from the Faculty of Management, Faculty of Civil Engineering, and Faculty of Electrical Engineering with the frequency of 1 (1.4%) respectively. As a consequence, we were able to select respondents without prejudice from a wide range of faculties, ensuring that the data gathered will represent a distinct perspective.

3.1.5 Respondents' Study Year

Year	Frequency	Percentage
1	55	76.4%
2	7	9.7%
3	9	12.5%
4	1	1.4%
Total	**72**	**100.0%**

Table 3.1.5.1 shows the Frequency of Respondents' Year

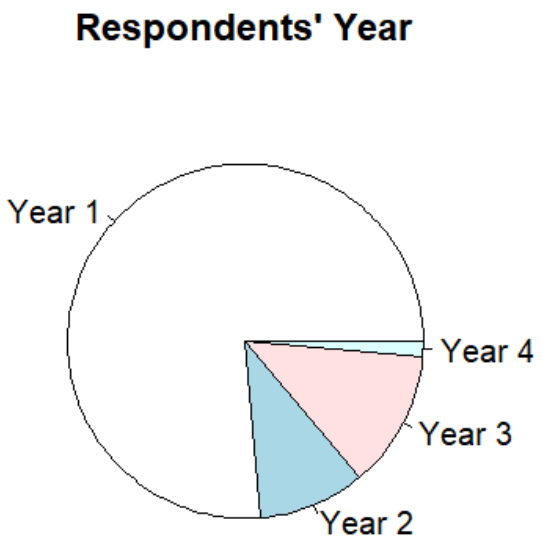

Figure 3.1.5.1 shows the Frequency of Respondents' Year

According to the table and figure 3.1.5.1 above, the data reveals a clear distribution among respondents across various academic years. The majority, comprising 55 (76.4%) of participants, are Year 1 students, indicating a larger representation of this group in the survey. Year 2 students account for 7 (9.7%) of respondents, meanwhile Year 3 students at frequency 9 (12.5%). Year 4 students constitute the smallest proportion, with only 1 (1.4%) of respondents.

3.2 Respondent's Devices Usage and Study Habits

3.2.1 Respondent Learning Style

Learning style	Frequency	Percentage
Visual	25	34.7%
Auditory	3	4.2%
Read/Write	34	47.2%
Kinaesthetic	10	13.9%
Total	**72**	**100.0%**

Table 3.2.1.1 shows the Frequency of Respondents' Learning Style

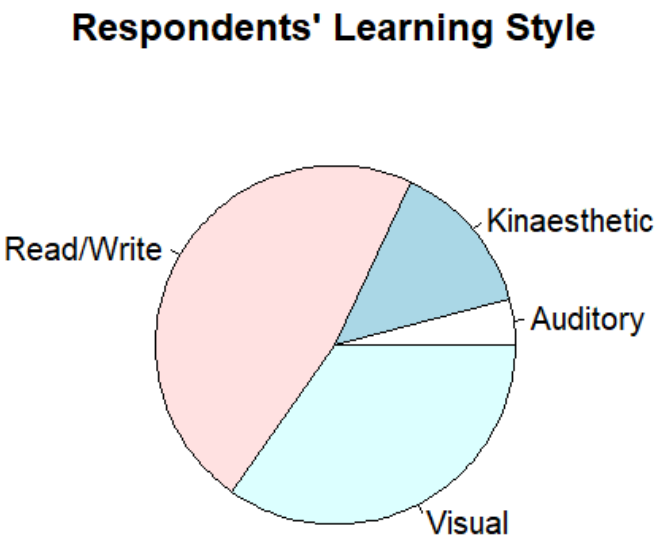

Figure 3.2.1.1 shows the Frequency of Respondents' Learning Style

From Figure and Table 3.2.1.1 above, the data shows how people like to learn. Most UTM students, with a frequency of 34 (47.2%), prefer learning by reading or writing. The second-highest group comprises 25 (34.7%) respondents who like to learn visually. A smaller number of respondents, with a frequency of 10 (13.9%), have a kinaesthetic learning style. Lastly, only 3 (4.3%) students prefer learning by listening.

3.2.2 Respondents' Devices

Device	Frequency	Percentage
Smartphone	69	95.8%
Laptop	69	95.8%
Tablet / iPad	42	58.3%

Table 3.2.2.1 shows the Frequency of Respondents' Devices

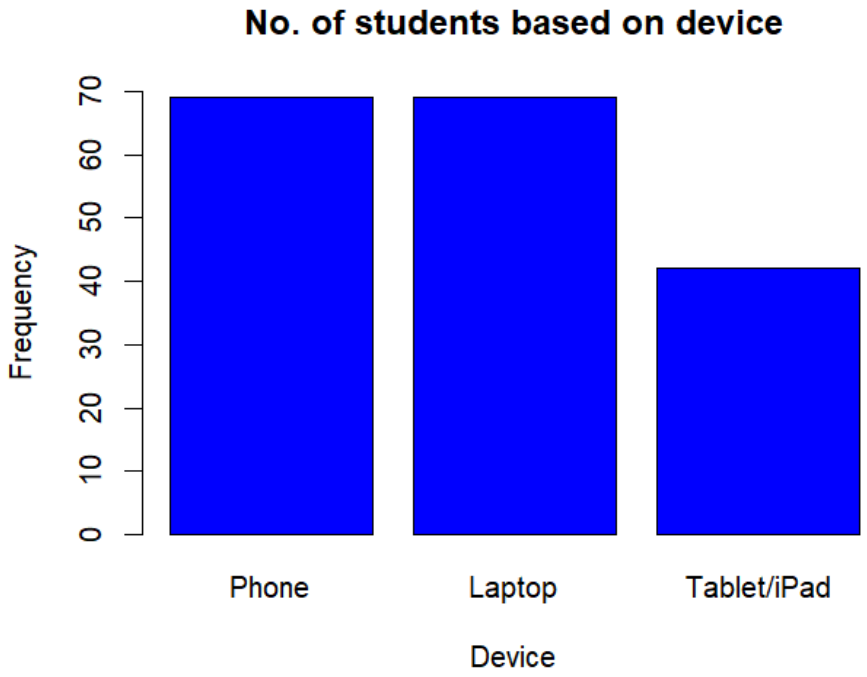

Figure 3.2.2.1 shows the Frequency of Respondents' Devices

According to the table and figure 3.2.2.1, the data on device usage among respondents indicates a high reliance on digital tools for academic activities. Interestingly, the frequency percentages exceed 100% because respondents could choose more than one device. The most commonly used devices are smartphones and laptops, both selected by 69 (95.8%) of participants, showcasing their importance in students' academic routines. Additionally, tablets or iPads are also popular, with 42 (58.3%) of respondents utilizing them for their studies. Almost all respondents use smartphones and laptops, and many use tablets too, showing how much technology matters in education nowadays. It means schools should make sure they have enough resources and good support for digital learning.

3.2.3 Respondents' Devices Usage

Usage Rate	Frequency	Percentage
1 (Strongly Disagree)	0	0%
2 (Disagree)	0	0%
3 (Neutral)	4	5.56%
4 (Agree)	17	23.61%
5 (Strongly Agree)	51	70.83%
Total	**72%**	**100%**

Table 3.2.3.1 shows the Frequency of Respondents' Device Usage

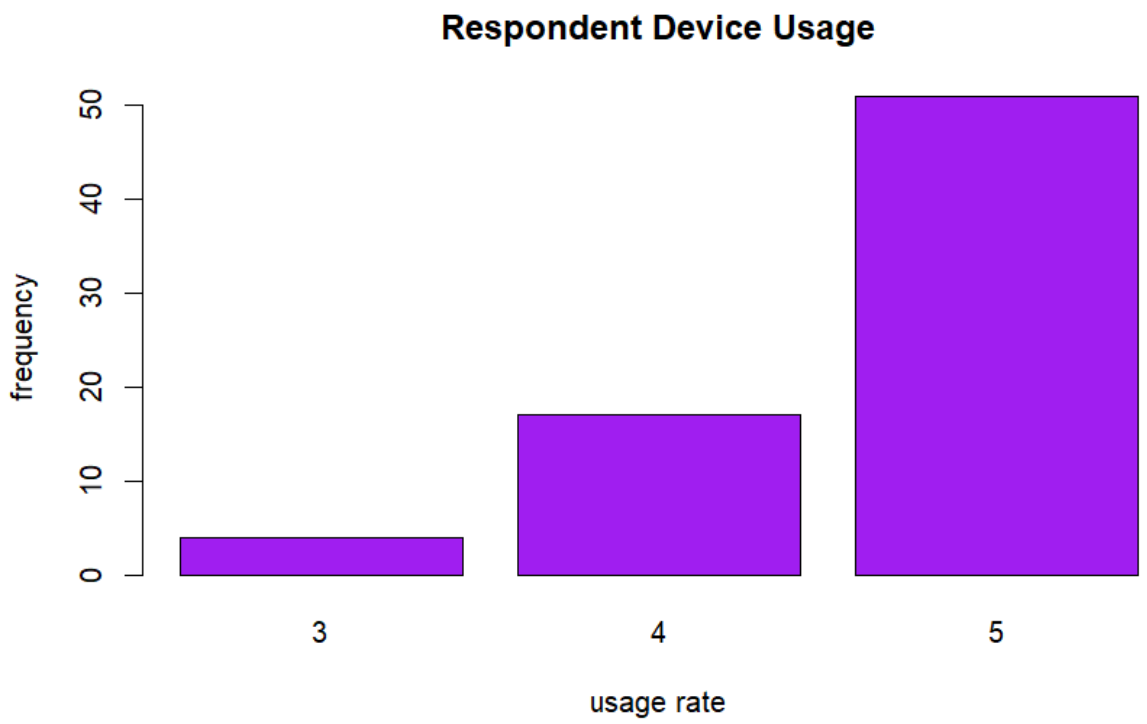

Figure 3.2.3.1 shows the bar chart of Frequency of Respondents' Device Usage

Based on the Table and Figure 3.2.3.1, the data shows the distribution of responses based on the rating scale for "Usage Rate", where respondents were asked to rate their usage behaviour. The frequency indicates the number of respondents for each range from 0(Strongly Disagree) to

5(Strongly Agree). Notably, the majority of respondents selected the highest rating (5 - Strongly Agree), accounting for 70.83% of total responses. A substantial proportion agreed (4 - Agree) with the usage behaviour, comprising 23.61% of responses. A smaller percentage of respondents indicated a neutral rate (3 - Neutral) with 5.56% of responses. Interestingly, no respondents chose the lower rating options which is (1 - Strongly Disagree and 2 - Disagree), reflecting a positive overall sentiment towards the rate of device usage among the undergraduate students.

3.2.4 Respondents' Daily Average Hours of Screen Time

Average Hours	Frequency
4	7
5	11
6	15
7	11
8	11
9	5
10	6
11	0
12	4
13	0
14	0
15	2
Total	**72**

Table 3.2.4.1 shows the Respondents' Daily Average Hours of Screen Time

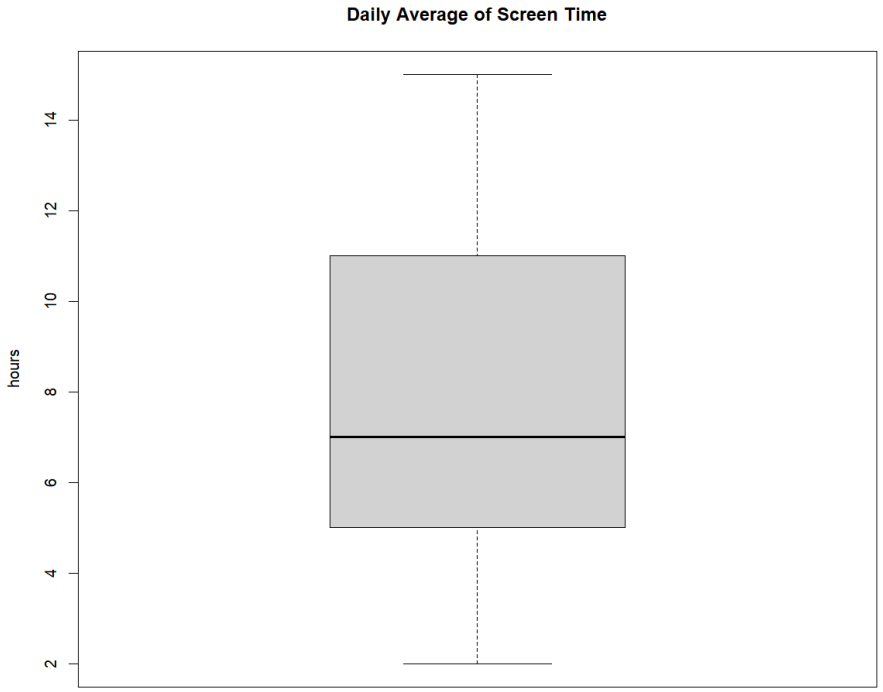

Figure 3.2.4.1 shows the boxplot of Respondents' Daily Average Hours of Screen Time

Quartile	Hours
0	2
0.25	5
0.5	7
0.75	11
1	15

Table 3.2.4.2 measure of quartile for boxplot Respondents' Daily Average of Screen Time

The table and figure 3.2.4.1 illustrates respondents' distribution of daily average hours of screen time with a total of 72 respondents surveyed. The most common daily screen time reported was 6 hours, observed among 15 respondents, followed closely by 5 hours reported by 11 respondents and 7 hours by another 11 respondents. The box plot depicted in Figure 3.2.4.1 further visualizes this data, highlighting the median (7 hours) and the spread of respondents' screen time distribution.

Table 3.4.2.2 provides quartile measurements for the boxplot, indicating that 50% of respondents reported screen time between 5 and 11 hours daily. A minimum of 2 hours and maximum of 15 hours. This data underscores the prevalence of moderate to extended daily screen time among respondents, with a significant number averaging around 6 hours per day. The quartile measurements reveal a median screen time of 7 hours, emphasizing the central tendency of the distribution and providing insights into the range and variability of respondents' screen time habits.

3.2.5 Respondents' Devices Usage : Activities and Preference

Activities	Frequency	Percentage
Education	32	44.44%
Entertainment	38	52.78%
Financial Management	1	1.39%
Both Education and Entertainment	1	1.39%
Total	**72**	**100%**

Table 3.2.5.1 shows the Respondents' Device Usage : Activities and Preferences

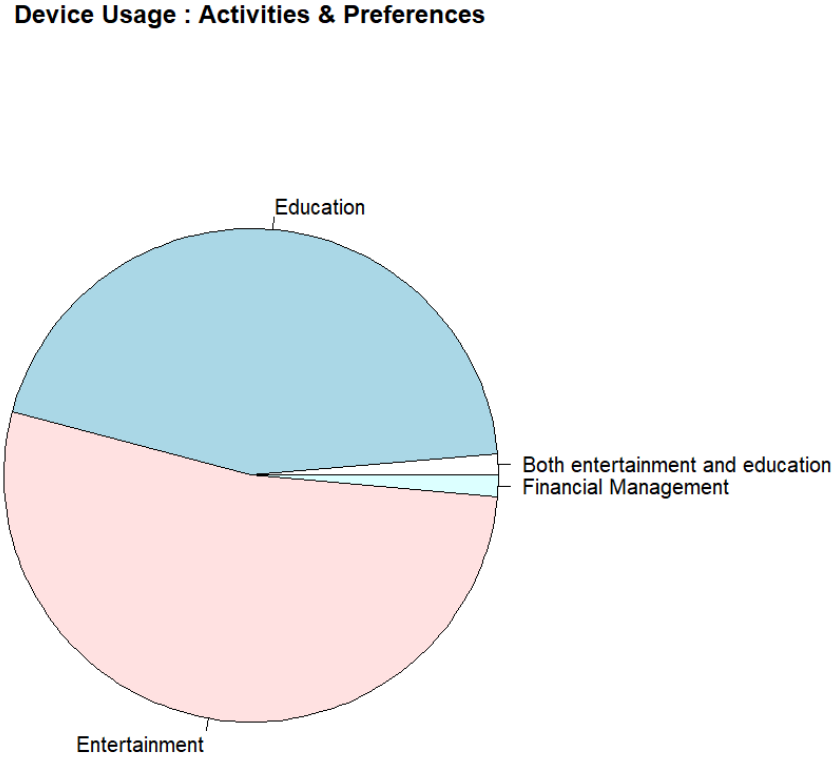

Figure 3.2.5.1 shows the pie chart of Respondents' Device Usage : Activities and Preferences

According to the table and Figure 3.2.5.1 above, display the respondents' engagement in various activities by using their devices. The activities included Education, Entertainment, Financial Management and combination of Education and Entertainment. Among the respondents. Education emerged as the most prevalent activity with 32 respondents representing 44.44% of the respondents, followed closely by Entertainment which gained 38 respondents accounting for 52.78%. Financial Management had the lowest engagement with only 1 respondent(1.39%). Additionally, 1 respondent reported engaging in both Education and Entertainment activities(1.39%) of the total. This breakdown highlights the predominant focus on Education and Entertainment among the surveyed individuals with Financial Management and combination of activities being less common.

3.3 Respondents' Effect of Screen Time on Academic Performance

3.3.1 Respondents' Devices Usage Timing Survey

Time Interval	Midpoint	Frequency	Percentage
0000 - 0400	0200	5	6.94%
0400 - 0800	0600	0	0.00%
0800 - 1200	1000	30	41.67%
1200 - 1600	1400	8	11.11%
1600 - 2000	1800	19	26.39%
2000 - 0000	2200	10	13.89%
Total		**72**	**100.0%**

Table 3.3.1.1 shows the Respondents' Device Usage Timing Survey

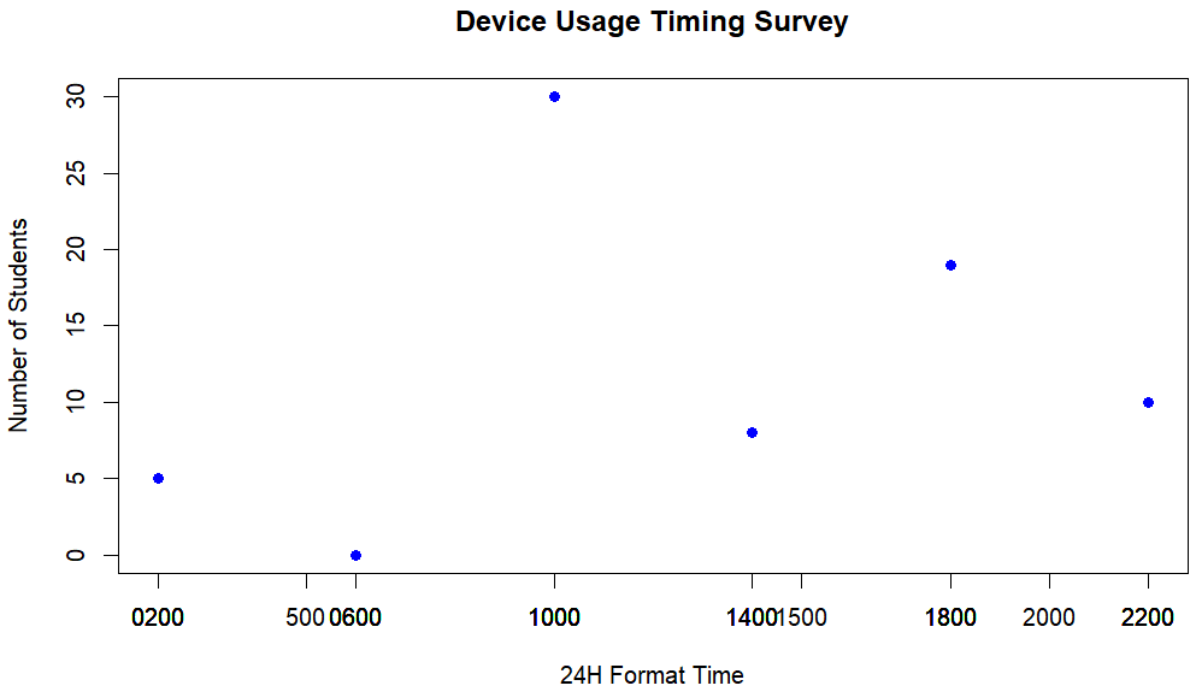

Figure 3.3.1.1 shows scatter plot of Respondents' Device Usage Timing Survey

Table and figure 3.3.1.1 summarizes findings from the Respondents' Device Usage Timing Survey conducted among 72 respondents. The data reveals that the most frequent device

usage occurs during the morning to noon period (0800 - 1200) with 30 respondents (41.67%) engaging with their devices during this time. Additionally, significant usage is observed in the evening (1600 - 2000) and late-night (2000 - 0000) hours with 19 respondents (26.39%) and 10 respondents (13.89%). Conversely, device usage is minimal during early morning and early dawn periods. The scatter plot visually represents these patterns, showing peaks corresponding to higher usage intervals. This visualization aids in understanding the distribution and trends of device usage throughout the day among respondents, highlighting peak usage times and periods of reduced activity.

3.3.2 Respondents' Frequency of Studying

Rate	Frequency	Percentage
1 (Strongly Disagree)	0	0.00%
2 (Disagree)	5	6.94%
3 (Neutral)	32	44.44%
4 (Agree)	23	31.94%
5 (Strongly Agree)	12	16.67%
Total	**72**	**100%**

Table 3.3.2.1 shows the Respondents' Frequency of Studying

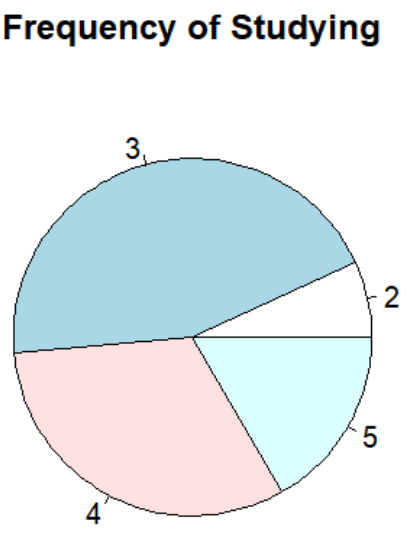

Figure 3.3.2.1 shows the pie chart of Respondents' Frequency of Studying

The table and figure 3.3.2.1 above presents the respondents' frequency of studying based on a rating scale ranging from 1(Strongly disagree) to 5(Strongly Agree). Among the 72 respondents surveyed, 6.94% expressed disagreement (rating 2) with 5 respondents selecting "Disagree" (rating 2). A larger proportion of respondents, constituting 44.44%, indicated a neutral stance towards studying (rating 3). In contrast, 31.94% agreed with the statement (rating 4) and 16.67% strongly agreed (rating 5). Notably, no respondents strongly disagreed (rating 1). This breakdown highlights the mixed sentiment towards respondents with a substantial portion leaning towards neutral views. These findings highlight the perspectives and levels of engagement among undergraduate students regarding their academic pursuits.

3.3.3 Respondents' Current CGPA

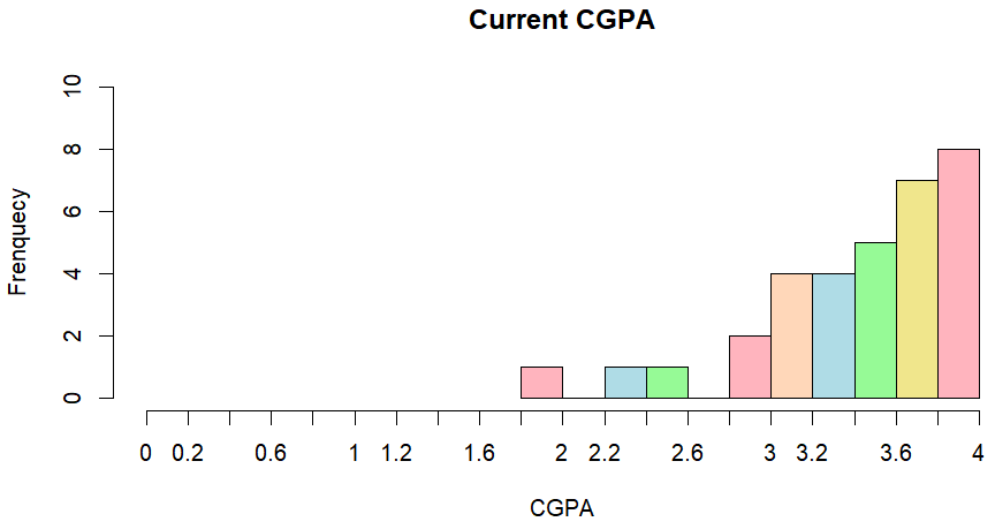

Figure 3.3.3.1 shows the histogram of respondent's current CGPA

Measures of Central Tendency	CGPA
Mean	3.59
Median	3.70
Mode	4.00

Table 3.3.3.1 shows the mean, median and mode for CGPA data

The figure and table 3.3.3.1 above represent the range value of CGPA for the respondents which are the UTM degree students. The highest range of current CGPA with 9 respondents

included in this range is between 3.80 - 4.00. The second highest range is between 3.60 - 3.80 with 7 respondents included in this range. The lowest range of CGPA values, on the other hand, is tied amongst 3 ranges—1.80 - 2.00, 2.20 - 2.40, and 2.40 - 2.60—because each range contained 1 respondent. Other than that, we can see that there is no respondent that falls into the range between 2.00 - 2.20 and also between 2.60 - 2.80. Additionally, from the table 3.3.3.1, the data CGPA we collected are spread widely since the mean is 3.59, even though the mode is 4.00. Also, our median value for CGPA is 3.70.

3.3.4 Respondents' Daily Study Time

Time Interval	Midpoint	Frequency	Percentage
0000-0400	0200	13	18%
0400-0800	0600	3	4.2%
0800-1200	1000	9	12.5%
1200-1600	1400	4	5.6%
1600-2000	1800	11	15.3%
2000-0000(2400)	2200	32	44.4%
Total		**72**	**100.0%**

Table 3.3.4.1 shows the time interval used and its percentage

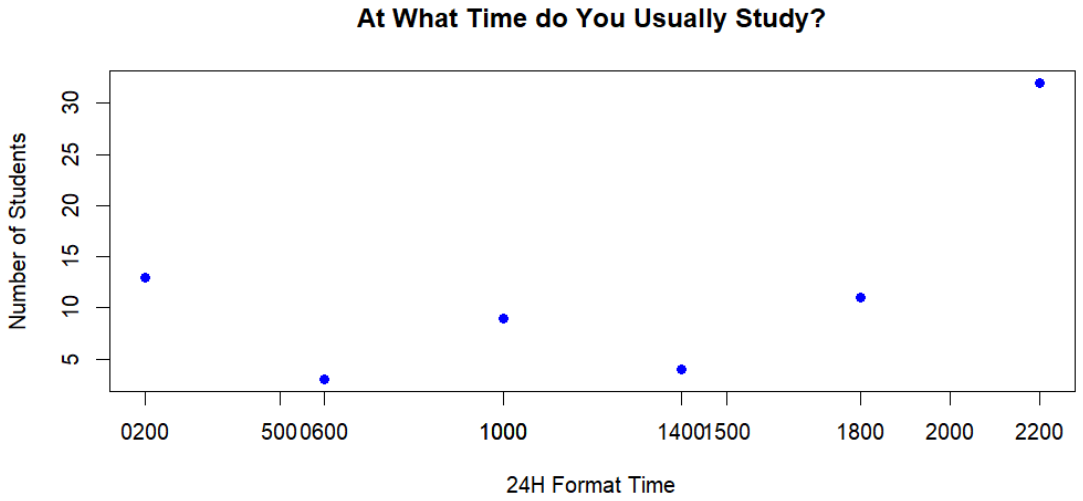

Figure 3.3.4.1 shows the scatter plot between time interval midpoint and its frequency

The table and figure 3.3.4.1 above shows the frequency and percentage of respondent's daily study time using the interval of 24 hour time. From the figure, we can see that the highest time interval with 32 respondents or 44.4% of the total chose to study is at 2000 - 0000 which is between 8 and 12 a.m. While the second highest is at 0000 - 0400 or between 12 - 4 a.m with 13 respondents or 18% of the total chose this time interval. The lowest time interval frequency is at 0400 - 0800 or between 4 and 8 a.m since only 3 respondents pick this time to study. Thus, the scatter plot suggests that most of the respondents study during night or midnight.

3.3.5 Respondents' Daily Average Hours of Study

Hours Interval	Frequency	Percentage	Cumulative Frequency
(0 - 3]	16	22.2%	16
(3 - 6]	34	47.2%	50
(6 - 9]	11	15.3%	61
(9 - 12]	6	8.3%	67
(12 - 15]	5	7.0%	72
Total		**100%**	**72**

Table 3.3.5.1 shows the hours interval used in frequency distribution (Figure 3.3.5.1)

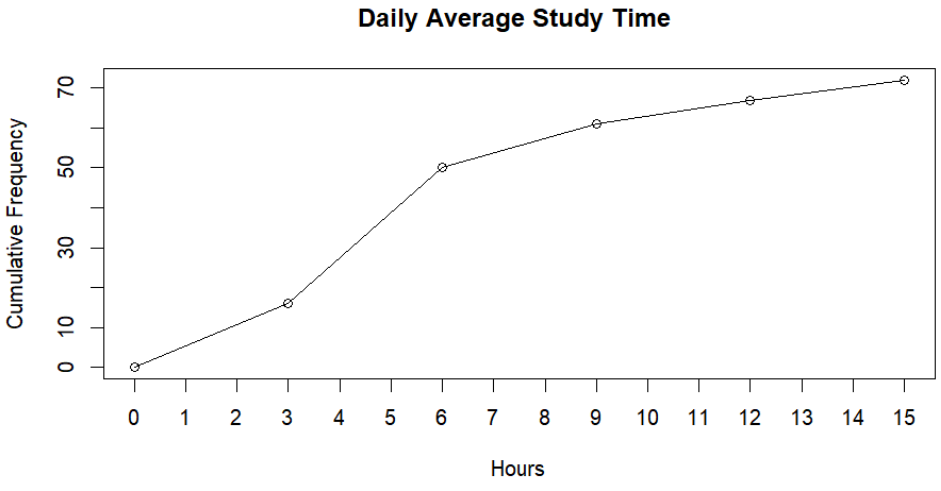

Figure 3.3.5.1 shows the frequency distribution of respondent's daily average study time

Measures of Central Tendency	Hours
Mean	6.014
Median	6
Mode	6

Table 3.3.5.2 shows the measure of central tendency of respondents' daily average study time

Figure 3.3.5.1 above represents the respondents' daily average study time and its cumulative frequency. From the table 3.3.5.1, we can see that the highest daily average hours for respondents to study is 4 - 6 hours because 34 respondents or 47.2% of the total give answers between that range. Other than that, from figure and table 3.3.5.1, it shows that the last dot is the lowest range which is between 12 - 15 hours because only 5 respondents give answers between that range since the difference between the last dot and the second last dot is small. Additionally, from the table 3.3.5.2, we can see that most answers that respondents give are 6, because the mode and median is 6, and our mean is 6.014.

3.3.6 Respondents' Daily Average Hours of Sleep

Hours	Frequency
0 - 2	0
3 - 5	42
6 - 8	30
Total	**72**

Table 3.3.6.1 shows the hours interval for daily average of respondents' sleep hour

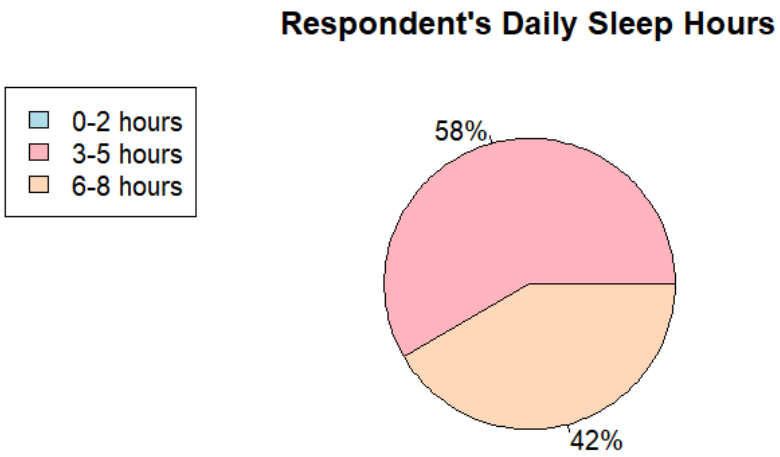

Figure 3.3.6.1 shows the pie chart of percentage of respondents' daily sleep hours

The figure and table 3.3.6.1 above represents the respondents's daily sleep hours. From the figure, the highest frequency of daily sleep hours is between 3 - 5 hours which 58% of the respondents choose this range. While the lowest frequency range is between 0-2 hours because none of the respondents opt for that choice. Thus, we can conclude that most of the respondents are getting sleep everyday even though the amount of hours is not the healthy recommended 6.9amount which is 6-8 hours per day.

3.3.7 Respondents' Sleep Time

Time interval	Frequency	Percentage
8 - 10 p.m	5	6.9%
11 - 1 a.m	48	66.7%
2 - 4 a.m	15	20.8%
others	4	5.6%
Total	**72**	**100%**

Table 3.3.7.1 shows the time interval for respondents' sleep time

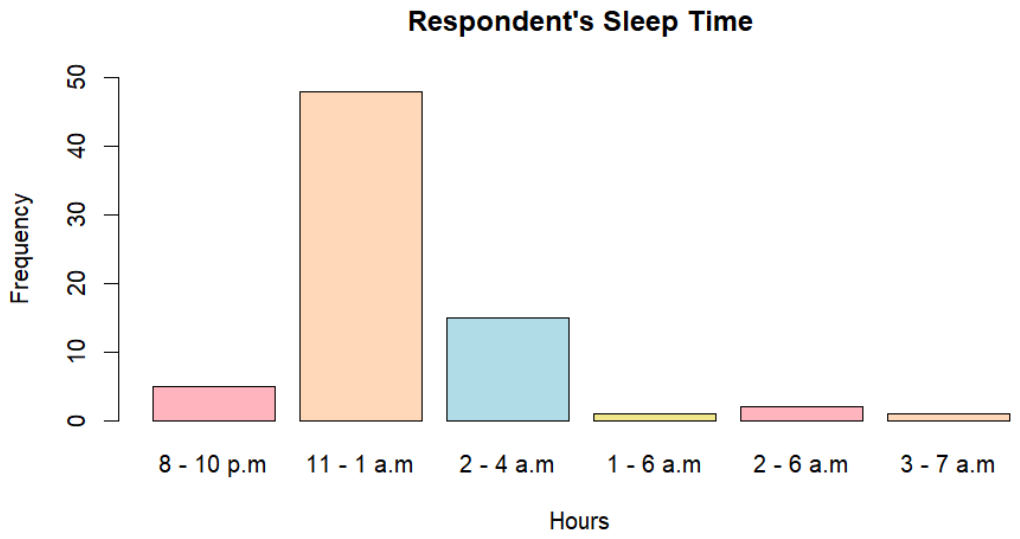

Figure 3.3.7.1 shows the time interval for respondents' sleep time

The table and figure 3.3.7.1 above represents the frequency for each time interval that shows the time of when the respondent goes to sleep. From the figure, it shows that at 48, which is 66.7% of the respondents, go to sleep between 11-1 a.m. At 2-4 a.m, there are 15 respondents which is 20.8% of the total respondents who go to sleep in that time interval and make this time interval the second highest frequency range. Additionally, from the additional time interval that 4 respondents give, we can conclude that a small percentage, 5.6% of the respondents, is living an unhealthy lifestyle since the time is between—1 - 6 a.m, 2 - 6 a.m, and 3 - 7 a.m— which is a very late time to go to sleep.

3.3.8 Respondents' Perception on How Screen Time Affect Their Academic Performance Negatively

Opinion	Frequency	Percentage
Yes	23	31.9%
Maybe	34	47.2%
No	15	20.8%
Total	**72**	**100.0%**

Table 3.3.8.1 shows the Frequency of Respondents' Opinion

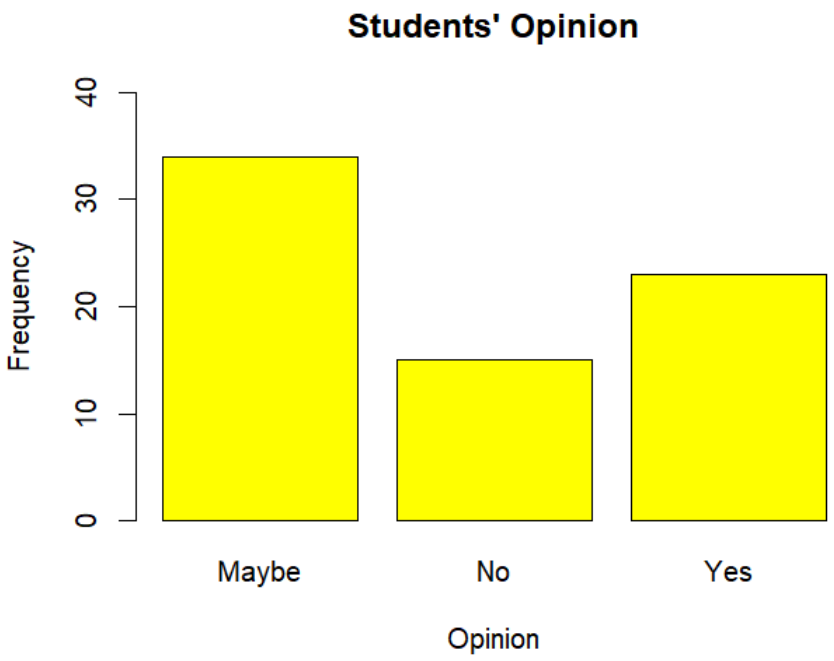

Figure 3.3.8.1 shows the Frequency of Respondents' Opinion

The table and figure 3.3.8.1 above presents a range of opinions among students regarding screen time on devices. Nearly half of the respondents, at 34 (47.2%), are uncertain or neutral, marked by the "Maybe" response. A frequency of 15 (20.8%) respondents hold a positive view, indicated by the "No" response, suggesting they believe screen time is beneficial. On the contrary, 23 (31.9%) respondents express a negative opinion with "Yes," indicating reservations or concerns about the impact of screen time on their academic performance .

4.0 Conclusion

All of the research here has been concluded with 72 respondents from undergraduate students in University of Technology Malaysia, consisting 12 males and 60 females. The majority of respondents are young which is around 20 years old, indicating a high representation of first-year students. Malay students make up the largest group, followed by Chinese and Indian students. Among faculties, the Faculty of Computing has the highest representation, followed by Chemical & Energy Engineering and Social Science & Humanities respectively. This diversity across faculties ensures a broad perspective in our data analysis, reflecting the views of students from different academic backgrounds. Notably, most respondents are first-year students, highlighting most of them are around us in our survey findings.

Based on our findings, many students prefer learning through reading/writing, followed by visual learning, kinaesthetic and auditory. These reading/writing learners usually understand and retain information better when written down. For visual learners they think in pictures rather than words. A kinaesthetic learner would rather perform physical activities to learn something and auditory learners rather listening to recording and talking to themselves. There's a strong reliance on digital devices for academic tasks, especially smartphones and laptops, used by nearly all students. Students generally view their device usage positively with most agreeing or strongly agreeing. That means most of the students never skip to use their device every single day. Screen time averages around 6-7 hours per day, with a significant number of students falling within this range. It is clear how important digital resources are to modern education because student activities are conducted on devices, both for instructional and recreational purposes. These findings highlight key aspects of students' learning preferences, technology use and screen time habits, shaping the educational landscape for undergraduate students at UTM.

Next, our survey reveals important trends among undergraduate students at UTM. Most students use their devices heavily during morning to noon and evening to late-night hours. There's a positive attitude towards studying, with many students agreeing with its importance. The distribution of current CGPA ranges widely with a concentration in the 3.80 - 4.00 range. Students prefer studying during the evening and late-night periods, with the most common daily study time falling between 4-6 hours. During the morning, most of them have classes which

mean the effective time to learn and study. Sleep patterns also show that most students sleep between 3-5 hours per day. The majority go to sleep between 11 p.m. to 1 a.m., though some have late-night sleep habits. Opinions on screen time vary with many students neutral or unsure about its effects, while others express concerns about its impact on academic performance. These findings provide insights into student behaviours and attitudes, guiding efforts to support their academic success and well-being.

In conclusion, a number of significant insights into the attitudes and behaviours of UTM undergraduate students are revealed by our thorough investigation. Students display a continuous engagement with technology by actively using their devices in the morning, evening and late at night. The majority of students agree that studying is important, indicating a favourable attitude towards the subject. Numerous students achieve excellent academics. That means they use their devices in a good way which is for education. These findings offer a comprehensive knowledge of student behavious and suggest solutions to assist both their academic pursuits.