



اَبُو سَيِّدِي تَكُونُ لَو كُنْ اَنَا
UNIVERSITI
TEKNOLOGI
MARA



PROCEEDINGS OF JOHOR INTERNATIONAL INNOVATION INVENTION COMPETITION AND SYMPOSIUM 2024 (JIIICaS 2024)



*“Flourish and Nurturing Sustainable
Innovation for a Prosperous Nation”*

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Preface

In the name of Allah, the Almighty who gives us the enlightenment, the truth, the knowledge and with regards to Prophet Muhammad (peace be upon him) for guiding us to the straight path. We thank to Allah for giving us guidance and strength to write this e-book.

This e-book compiles the extended abstracts that submitted to Johor International Innovation Invention Competition and Symposium 2024 (JIIICaS2024), where JIIICaS2024 is a virtual platform for all creative minds to share and present their invention and innovation. Each abstract gives a brief background on the innovation or project.

We hope that this e-book will help the readers to get to know the innovation done by the students and get some ideas to develop future innovation products.

Foreword Rector



Assalamualaikum warahmatullahi Wabarakatuh,
Salam Sejahtera, Salam Malaysia MADANI and
Salam UiTM Dihatiku.

In the name of Allah, the Most Gracious, the Most
Merciful.

It is a great honor to welcome you to the Johor
International Innovation, Invention, Competition, and
Symposium 2024 (JIIICaS 2024). This event

connects various disciplines, focusing on education and engaging educators,
students, researchers, and innovators from all walks of life.

Innovation is not just about ideas; it demands perseverance, creativity, and
determination to turn those ideas into reality. The remarkable projects
showcased today highlight the dedication and spirit of all participants.
Initiatives like this not only explore new technologies but also cultivate skills
and leadership among our youth. At Universiti Teknologi MARA (UiTM) Johor
Branch, we are fully committed to fostering a dynamic culture of innovation,
promoting the commercialization of new products, and encouraging
meaningful collaborations with industry and society.

As we celebrate this event, I would like to extend my heartfelt gratitude to all
sponsors, judges, the College of Computing, Informatics and Mathematics,
UiTM Pasir Gudang Campus as the event organizer, as well as to the
researchers and participants for their hard work in making this event a
success. Let us continue striving for innovation and excellence. May the
ideas presented today inspire us and lay the groundwork for future
achievements.

Thank you.

Associate Professor Dr. Saunah Zainon
Rector
Universiti Teknologi MARA (UiTM)
Johor Branch

(A-PP022) EXPLORING SLEEP ROUTINES OF UNIVERSITY STUDENTS

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ABSTRACT

This research investigates the critical importance of sleep for students' overall health, cognitive function, and emotional well-being. It identifies various environmental, behavioural, and psychological factors that affect sleep, such as noise, late-night eating, caffeine consumption, and stress. It highlights the severe consequences of poor sleep, including physical health issues, mental health problems, and decreased academic and work performance. In order to improve sleep quality, establishing a consistent sleep routine, optimizing the sleep environment, and making lifestyle adjustments such as regular exercise, a healthy diet, and limiting screen time before bed are suggested. Additionally, it recommends monitoring sleep patterns through diaries and apps, and seeking professional help for persistent sleep issues. The comprehensive analysis emphasizes that personalized approaches are necessary to address individual sleep needs effectively.

Keywords: health, sleep, routines, monitoring

1.0 INTRODUCTION

Sleeping habits among students play a crucial role in their academic performance and overall well-being. Factors like age, social activities, and technology use before bedtime contribute to disrupted sleep routines and sleep-friendly environment, limiting screen time before bed, managing time wisely, and seeking professional help when needed to address sleep challenges and improve sleep quality. Lack of sleep not only affects academic success but also leads to various health issues like obesity, heart diseases, depression, and anxiety. Therefore, establishing healthy sleep habits is essential for students to enhance their learning, memory, and overall academic performance while safeguarding their physical and mental health.

Next, sleeping habits among students are multifaced, reflecting a blend of individual preferences, academic pressures, social dynamics, and lifestyle choices. One of the most noticeable aspects of these habits is the variability in bedtime and wake up times. While some students adhere to a consistent schedule, others experience fluctuations influenced by factors such as coursework deadlines, social events, or part time employment. Consequently, this irregularity often leads to inconsistent sleep durations, with many students failing short of the recommended 7 to 9 hours per night. The quality of sleep also influenced by stress levels and environmental factors.

Furthermore, the college environment itself can contribute to poor sleep hygiene, with dormitory living, noisy surroundings, and uncomfortable sleeping arrangements hindering restful sleep for some. Additionally, the prevalence of caffeine consumption

to combat daytime sleepiness or meet academic demands further complicates students' sleep patterns, potentially leading to a vicious cycle of caffeine dependence and disrupted sleep. Efforts to establish consistent sleep schedules, create conducive sleep environments, and practice good sleep hygiene are increasingly emphasized as essential components of self-care and stress management strategies. Therefore, this research are conducted to investigate sleeping habits among university students.

2.0 OBJECTIVE

The following are the overall objectives of this study:

1. To determine how they typically handle their sleep time
2. To observe their sleep quality
3. To identify hours sleep for each respondent
4. To identify the satisfaction level of challenges that may impact on the students sleeping schedule

3.0 METHODOLOGY

3.1 Description of data

Population	The term population in this research refers to all university students.
Sample	The sample of this survey consists 80 students selected randomly from every state in Malaysia
Sampling Technique	We choose Convenient Sampling Technique for our research because it is more efficient and flexible since it has a smaller sample size.

3.2 Method of data analysis

Table 1 : Summary of methodology Objectives

Objectives	Variables	Methodology
1. To determine how they typically handle their sleep time	How students typically handle their sleep time	Graph -Bar Chart
2. To observe their sleep quality	Students sleep quality	Graph-Pie Chart
3. To identify hours sleep for each other	Hours sleep of students	Graph-Pie Chart
4. To identify the satisfaction level of challenges that may impact on the students sleeping schedule	Satisfaction level of impact sleeping schedule on students	Graph-Bar Chart

4.0 RESULTS

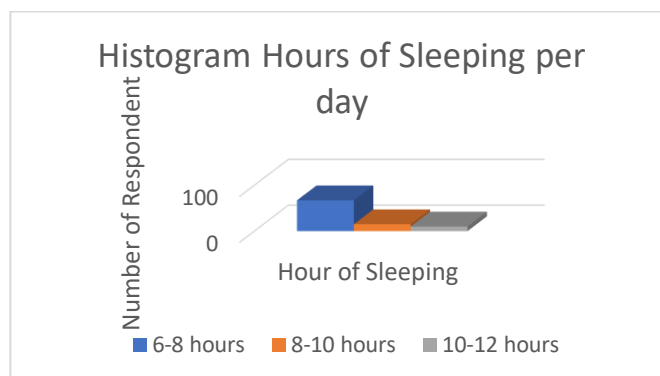


Figure 1 : Histogram chart of respondents takes many hours usually for sleeps each night.

Based on the data, this histogram chart shows the distribution of sleep duration among the 92 students. The majority, 67 students sleep for 6-8 hours every night. This shows that most respondents get a moderate amount of sleep with the majority getting less.

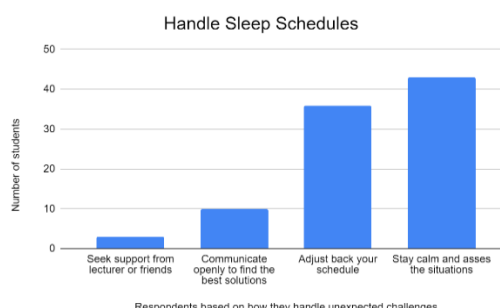


Figure 2 : Bar chart of how respondents handle their sleep schedules.

The information displayed shows how pupils respond to unexpected challenges or disruptions that could interfere with their sleep habits. 43 students said they would rather remain composed and evaluate the circumstances. These percentages are shown graphically in a column chart, which emphasises the preference for maintaining composure and making timetable adjustments.

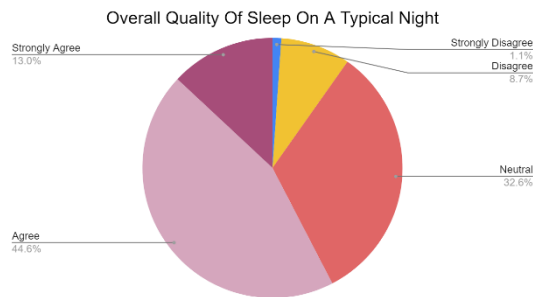


Figure 3 : Pie chart of overall quality of sleep on a typical night.

The survey's findings show that students sleep quality differs widely. 41 students agreed that they get high quality sleep, and 12 students chose strongly to agree as their experiences. This implies that most of the students who are typically satisfied with their sleep. Although most students had an excellent quality of sleep, the existence of neutral and unsatisfactory sleep responses shows that, the need for education and action to promote sleep health among all students.

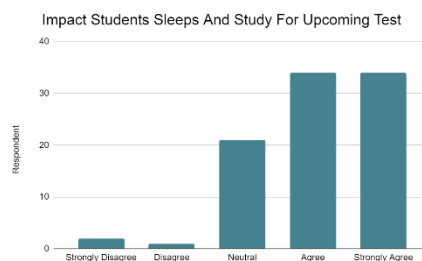


Figure 4: Bar chart of impact students sleeps and study for upcoming test.

According to the finding data, from the strongly agree and agree, the majority of students that are agreeing is 68 in total and they both have the same respondents which is 34 students.

5.0 CONCLUSION

In conclusion, the study on students' sleeping habits underscores the critical role sleep plays in academic performance and overall well-being. In this study, students' sleep patterns are shaped by a complex interplay between individual preferences, academic pressures, social dynamics, and lifestyle choices. A consistent sleep schedule is essential because of the variability of bedtimes and wake-up times, in combination with irregular sleep durations. The effects of disrupted sleep routines and poor sleep quality on concentration, assignment completion, and academic success have been shown to be detrimental. Even though students perceived they had sufficient time for assignments, a significant portion of them reported feeling distracted by sleep related issues, which points to a potential gap in time management strategies.

Moreover, to understand how students usually manage their sleep time by identifying their habits and factors that affect their sleep quality. This can find out how student's irregular sleep schedules are caused by academic stress, social activities, and technology use, as well as identify common challenges such as stress and a poor

sleep environment. The aim is to gather the various strategies used by students to manage sleep, whether positive or negative. Also, this is to evaluate the overall impact of these practices on their health and academic performance. Out of 92 students, 43 students choose to stay calm and assess the situation when their sleep is disrupted. While 36 students adjust their schedules, only 10 students discuss solutions openly, and 3 students ask for help from lecturers or friends. As a student, it is important to balance academics, and social life which leads to poor sleep. Understanding our sleep habits can help students develop better ways to improve their sleep quality which is good for health and academic success.

Afterwards, to understand and acknowledge everything that sleep offers for maintaining student's physical and emotional health. This entails investigating how students getting enough sleep supports body functioning, bolsters the immune system, and promotes physical performance and recuperation in addition to improving mental clarity, emotional stability, and general brain health. Based on the data analysis, they agreed that sleep is considered to increase mood, reduce stress, improve cognitive function, boost immunological function, and help with academic and athletic performance. A few disagreed, presumably because of variations in sleep requirements among students, the significance of other variables like food and exercise, scepticism, or own experiences. Most people agree that getting enough sleep has a favourable effect on students' health. Understanding the benefits of sleep for mental and physical health might make all the difference for people who lack it. It's the difference between being continuously tired and emotionally drained and having enhanced cognitive function, mood control, and overall well-being with each night of restorative sleep.

Therefore, to find out how students manage their time to complete assignments by knowing their time management strategies, habits, and challenges they face. This involves looking at how students perform on assignments, performing assigned work such as individual or group work, and submitting on set dates by the lecturer. By understanding these factors, we can identify effective techniques in time management, which can provide better support to help students improve their productivity and academic performance. Among 92 students, 39 students prioritize urgent assignments, the most common strategy. 22 students use planners, 16 students adjust plans for flexibility, and 14 students set goals for each task. Only one student finishes assignments last minute. For students, it is major to understand how they manage their time for assignments. Balancing coursework, activities, and personal life requires effective planning and prioritization. Students have to learn more about their time management strategies can help improve productivity and reduce stress for students and can support academic success and well-being.