

# **CATEGORY 4 RESOURCE DEVELOPMENT**

## **Group 4-078 PROJECT RESTFUL**

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**Abstract:**

Project Restful aims to educate upper secondary students on the benefits of having quality rest and tips on how to achieve a greater amount of rest. We have created 3 resources consisting of a brochure, a website and an Instagram account. The website provides benefits to achieving good sleep, as well as how to achieve good sleep (good sleeping habits to adopt etc.) The brochure and Instagram account are for publicity, in order to help an even greater range of students to achieve better sleep, as we feel that this is very important.

**1 Introduction****1.1 Rationale**

Hwa Chong has a very competitive environment being an IP school, as such many students may have to pull many all-nighters to study. As such, we wish to aid students in getting a greater amount and quality of rest, by providing the useful benefits of having sufficient sleep, along with solutions of how you can achieve a greater amount of rest amidst your hectic schedule of work.

**1.2 Objectives**

Our objective is to give students tips on how to achieve a greater amount of rest.

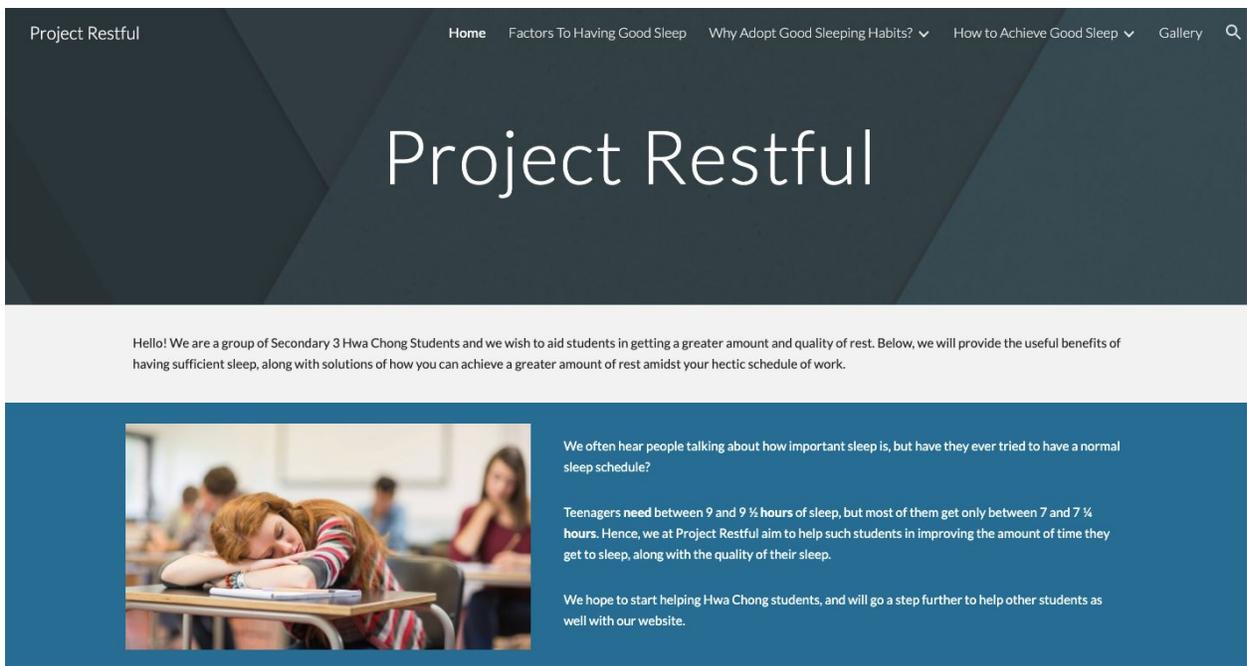
**1.3 Target audience**

Upper Secondary students in Hwa Chong

### 1.4.1 Proposed resources: Website

Our website provides many helpful information, to assist students on their journey to achieve good sleep. We have:

- Factors to achieve Good Sleep
- Benefits of Good Sleep
- Ways to achieve Good Sleep
- A Gallery of posters used in our Instagram and Brochure
- A Feedback Form where viewers can provide feedback pertaining to our website, such as advice as to what to add/change etc.)



The screenshot shows the homepage of the 'Project Restful' website. The header features the site name 'Project Restful' on the left and a navigation menu with links for 'Home', 'Factors To Having Good Sleep', 'Why Adopt Good Sleeping Habits?' (with a dropdown arrow), 'How to Achieve Good Sleep' (with a dropdown arrow), and 'Gallery' (with a search icon). The main content area has a dark blue background with the title 'Project Restful' in large white text. Below this is a white text box with an introductory message. The lower section has a blue background and contains a photograph of a student sleeping at a desk, followed by two paragraphs of text explaining the project's mission and goals.

Project Restful

Home Factors To Having Good Sleep Why Adopt Good Sleeping Habits? ▾ How to Achieve Good Sleep ▾ Gallery 🔍

# Project Restful

Hello! We are a group of Secondary 3 Hwa Chong Students and we wish to aid students in getting a greater amount and quality of rest. Below, we will provide the useful benefits of having sufficient sleep, along with solutions of how you can achieve a greater amount of rest amidst your hectic schedule of work.



We often hear people talking about how important sleep is, but have they ever tried to have a normal sleep schedule?

Teenagers need between 9 and 9 ½ hours of sleep, but most of them get only between 7 and 7 ¼ hours. Hence, we at Project Restful aim to help such students in improving the amount of time they get to sleep, along with the quality of their sleep.

We hope to start helping Hwa Chong students, and will go a step further to help other students as well with our website.



Head to the top right for other relevant information!



### An optimum quantity of sleep

A sufficient amount of sleep is required. Not too much, and not too little. As mentioned, teenagers require 9 to 9 ½ hours of sleep, whereas teenagers only get 7 hours on average. When one is unable to sleep early at night, short and effective power naps in the late afternoon can come in handy.

However, with the hectic schedule of work that students have, it is not uncommon to see Co-Curricular Activities ending at 6, or sometimes even 7. Students may end up sleeping at midnight because of the number of homework given. Fortunately, we have some sleep tips which can help with your sleep well-being.

①



### A good quality of sleep

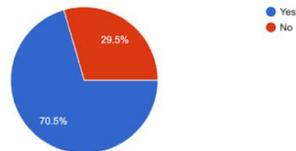
Besides the amount of sleep you get, having a good quality of sleep really improves the amount of energy you recover through sleep. According to experts, 6.5 hours of quality sleep gives more energy than 8 hours of poor quality sleep.

Despite having a lot of time to sleep, one may still find him/herself tired. This is because they have trouble having a suitable quality of sleep. This may be due to their environment, such as having lots of noise around them, or may simply be due to stress during school.

These are just a few examples of how students are having a bad quality of sleep.

# Higher overall grades

When you have more sleep, do you get better results academically?  
95 responses



Our findings showed that sleep plays a key role in helping students fix and consolidate memories, plus prevent decay of memories.

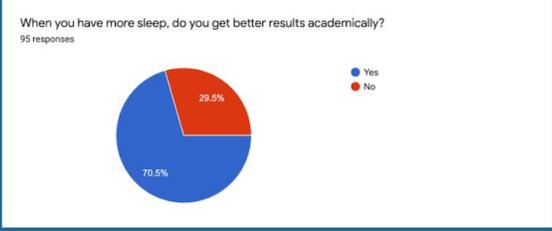
More than 70% of the interviewees indicated that they had scored more with more sleep. This highlights the importance of enough sleep in cognition in students.

This highlights the importance of having enough sleep.

**Many reasons and detailed info listed, with evidence and findings**

# Higher overall grades

- Higher overall grades
- Improve concentration an...
- Enhance athletic perform...
- Improves immune function
- Reduces stress



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# Improving Sleeping Environment

### Design a Sleep-Friendly Bedroom

LEARN ABOUT THE IMPORTANCE OF DESIGNING A SLEEP-FRIENDLY BEDROOM ENVIRONMENT FROM THE WORLD'S LEADING EXPERTS IN SLEEP HEALTH, THE NATIONAL SLEEP FOUNDATION.

- Dimming the lights** - Use nightlights that are dim and warm-toned. Avoid bright, cool-toned lights that can keep you awake.
- Your room should make you relaxed and peaceful** - Use colors and decorations that you love. It's also helpful to have your bed, desk and dresser, and to make your bed every morning.
- A cool room** - Experts believe it's best to sleep in a room that is between 60 and 67 degrees Fahrenheit. Use fans and air conditioning to keep the room cool.
- Choose mattresses, pillows and sheets** - Choose a mattress that is comfortable and supportive. Use pillows that support your neck and head. Choose sheets that are soft and breathable.
- Reduce noise** - Use earplugs and white noise machines to help you sleep better.
- Surround yourself with pleasant smells** - Use scented candles or essential oils to help you relax and fall asleep.

FOR MORE TIPS FOR CREATING A SLEEP-FRIENDLY BEDROOM, VISIT [sleepfoundation.org/bedroom](http://sleepfoundation.org/bedroom)

## Designing a sleep-friendly room

One may have sufficient hours of sleep, and also be stress-free. However, he/she may still be feeling tired when they wake up. Why is this so?

It is very likely that the sleeping environment is not suitable. These are the ways to determine whether one's sleeping environment is suitable or not.

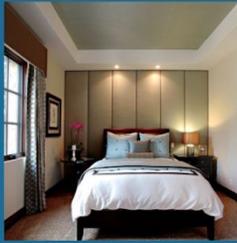
- Glaring lights (Excessive amounts of lights even when sleeping)
- Loud noises (Excessive amounts of noise)
- A stuffy room (Too much heat, very difficult to breathe etc.)
- Uncomfortable bed (Bed is very hard, getting body aches when one wakes up)





#### Minimizing Light Levels

Try to block off visible light sources that may be in your room. One example would be to install blinds, in order to block off external light sources. Another solution would be to turn off lamps and televisions. High light levels often affect sleep cycles.



#### Minimizing Noise Levels

Placing rugs and installing soundproof walls are good solutions to this problem. However, they may be costly to implement. One may resort to cheaper solutions such as wearing earmuffs before they sleep. The brain is able to calm down faster, and enter a deep sleep more promptly.



#### Improving Ventilation

Installing air conditioners and even fans would help greatly. Air has to circulate, to prevent the room from being stuffy. Opening the windows will also help to bring in some fresh air. A cooler bedroom will help one to sleep easily and more calmly.



#### Improving Bed Condition

A low-quality bed will most often have a hard surface. This will disrupt sleep, and may be likely to cause aches around the body after one wakes up. Replacing it with a better bed will be the best option. However, costs may again be too large. As such, purchasing a simple soft mattress will help to reduce costs. Using blankets is also a great alternative. A more comfortable bed will allow one to sleep well and will improve physical welfare.

### 1.4.2 Proposed resources: Instagram account

Our Instagram account provides many useful information such as posters, which help to advocate why good sleep will be helpful. However, the main goal for the Instagram account is to publicise our project. Many teenagers of our age use social media, and we think that this will be useful to attract their attention and to use our resource, so we can help more people achieve better sleep.



5 Posts 37 Followers 93 Following

Project Restful

Hi! We are a group of sec3 HCI students aiming to educate students on the importance of sufficient sleep

Followed by nathan\_da\_b.a.t.o.n, t\_sunny\_h and 11 others

Following Message



### 1.4.3 Proposed resource: Brochure

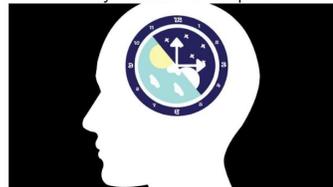
Our brochure contains easy to understand information with

- Simple tips to sleep better
- Information on sleep to deepen the readers understanding
- Easy connection between audience to knowledge, and our website



#### What is the Circadian Rhythm?

Circadian rhythms are 24-hour cycles that are part of the body's internal clock, running in the background to carry out essential functions and processes. One of the most important and well-known circadian rhythms is the sleep-wake



**QR Code to our website!**



## 2 Review:

### 2.1.1 Literature review:

Briefly talks about tips without any explanation. Requires the loading of tabs 21 times to read through all the tips, which makes it extremely inconvenient.



## 1. Power Down

1 / 21

The soft blue glow from a cell phone, tablet, or digital clock on your bedside table may hurt your sleep.

**Tip:** Turn off TVs, computers, and other blue-light sources an hour before you go to bed. Cover any displays you can't shut off.

## 2.1.2 Literature review

Contains unrealistic tips that would be of no use to young students who have no access to these medications/ sleep drugs



SUBSCRIBE

healthline

### 6. Take a melatonin supplement

Melatonin is a key sleep hormone that tells your brain when it's time to relax and head to bed (46<sup>o</sup>).



Melatonin supplements are an extremely popular sleep aid.

Often used to treat insomnia, melatonin may be one of the easiest ways to fall asleep faster (47<sup>o</sup>, 48<sup>o</sup>).

In one study, taking 2 mg of melatonin before bed improved sleep quality and energy the next day and helped people fall asleep faster.

In another study, half of the group fell asleep faster and had a 15% improvement in sleep quality (48<sup>o</sup>, 49<sup>o</sup>).

Additionally, no withdrawal effects were reported in either of the above studies.

Melatonin is also useful when traveling and adjusting to a new time zone, as it helps your body's circadian rhythm return to normal (50<sup>o</sup>).

### 3 Methodology

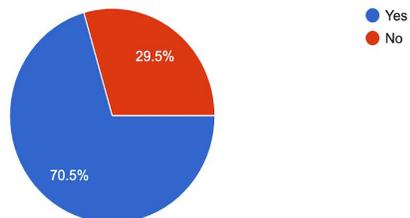
#### 3.1 Needs Analysis

We made a Google Form, to confirm the benefits of better sleep through the surveying of students. Through the survey results, we have confirmed that the benefits from good sleeping habits were indeed true.

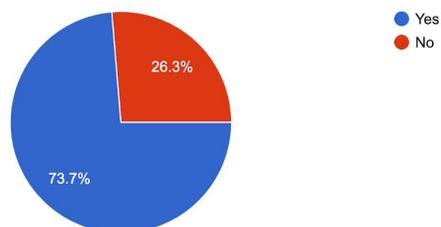
We had surveyed 95 people, all of which are Upper Secondary Hwa Chong Students.

#### 3.2 Survey Results

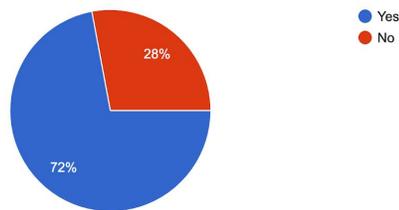
When you have more sleep, do you get better results academically?  
95 responses



Are you less stressed when having sufficient amount of sleep?  
95 responses



On days with PE lessons, do you think you perform better when getting sufficient sleep?  
93 responses



### 3.3 Development of resource

In the development of our resource, we had gone through much research, such as searching online, consulting experts and using our personal experiences. We consulted Dr. Yue Weng Cheu for useful sleeping habits to adopt, in order to achieve more rest within a shorter amount of time. We had also tried the sleeping habits, and made sure that it was beneficial before implementing it into the website.

When creating the brochure, we inserted a QR code in order for easy access to our website. As many people have QR code scanners on their phone in this period, this makes it easier for them to access our website. Finally, repeated pilot tests were conducted to ensure that our project was successful.

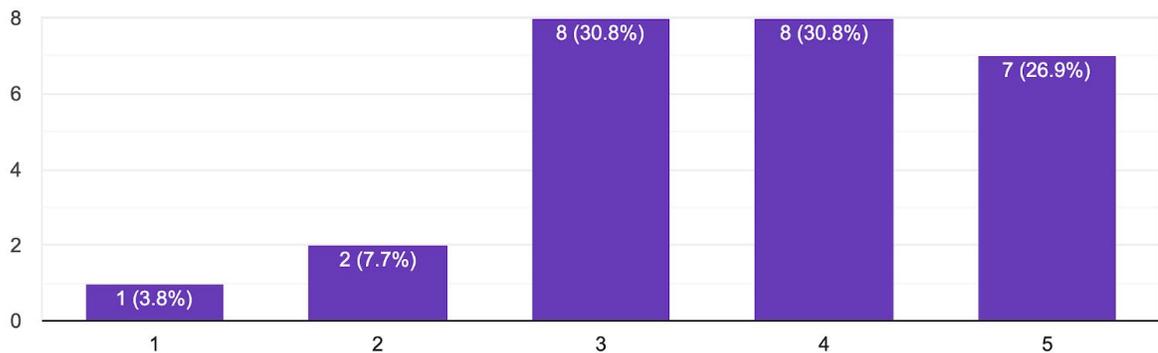
### 3.4 Pilot test

#### 3.4.1 First pilot test

When the first pilot-test was sent out to about 30 people, the online platform was shown and their feedback was sought. Below is the result of the first pilot test

How useful is our resource?

26 responses



- 57.7% of respondents scored our website at least a 4.

“ The website is too chunky and hard to understand “ **Jun Long 3P2**

“ The website isn't very appealing, maybe add some pictures “ **Nathanael Goh 3P1**

“ The website is wordy, maybe add some benefits on sleep instead of information on sleep “ **Felix Tan 3A2**

“The site was easy to navigate as the different categories were easily accessible.”

*Anonymous*

“The website provided information that was simple and easy to understand.”

*Anonymous*

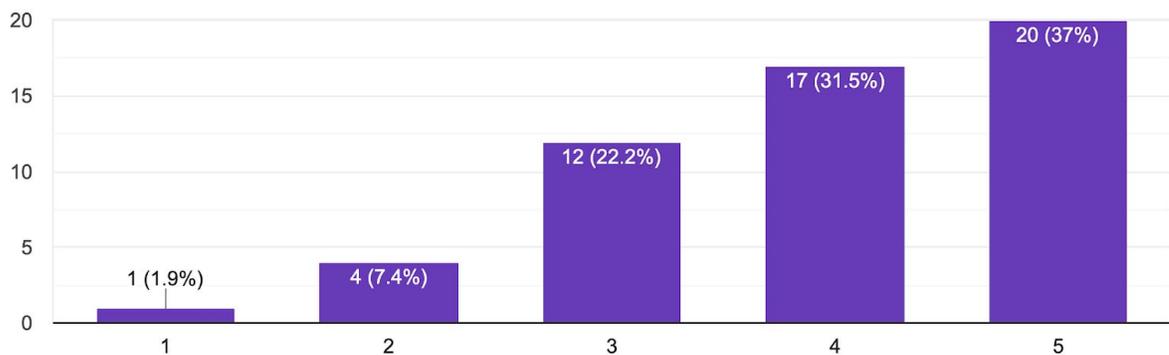
The feedback was incorporated into fine-tuning of the website. After completing the improvement work to the website; making it less wordy, provides suggestions on what they can do, make the words more readable through using different fonts and

background, and includes more pictures. Another round of pilot test was conducted on the improved website.

### 3.4.2 Final pilot test

How useful is our resource?

54 responses



- An increased 68.5% of respondents scored our website at least a 4.

### 4. Outcome and decision

Students feel that sleep is important, and majority of students who have tested our resources believe that it is useful. After using these resources on classmates who have problems with sleeping times and habits, they have significantly improved sleeping times and habits.

## 5. Conclusion

We are able to conclude that we have impacted upper secondary Hwa Chong students positively. Through surveys and testing, our resources are useful in improving student's sleeping times and habits.

## 6. References

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