

# Project: Virus Minus

Project 4-066

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# **1 Introduction and Rationale**

## **1.1 Introduction**

Project Virus Minus is a comprehensive platform that provides HCI students with information about different viruses and the preventive measures that they can take. Through this project, we hope that they can understand the importance of practising these preventive measures in real life. Our project hopes to disseminate these information by creating resources with updated information and illustrations so that they are well-informed about the different types of viruses.

## **1.2 Rationale**

The COVID-19 pandemic is “the worst global crisis since WWII”, according to Mr. Antonio Guterres, U.N. Secretary-General. The impacts of the pandemic on the environment, society and economy are astronomical. Hence, we embarked on this project to raise awareness on the dangers of viruses as well as educate the public on how to prevent the spread of viruses. We are aware that there are many existing resources which share the same objectives. However, we realise that these resources lack consolidation of information and awareness for users. Our project aims to address those gaps.

## **1.3 Target Audience**

Our target audience is students from Hwa Chong Institution, ranging from Secondary One to Junior College Two. Nevertheless, our resources are also accessible and beneficial to everyone, including the general public.

# **2 Objectives**

- I. To raise awareness on the dangers of viruses.
- II. To educate the target audience on how to prevent themselves from spreading or infecting viruses.

## 2.1 Resources

The main resource developed is a website about the viruses and some of the preventive measures. We have included the impacts and some essential statistics of these viruses to raise awareness on the severe impact of viruses. Other resources such as booklets, posters, videos and Instagram page that are developed and maintained can also be found on the website.

## 2.2 Impact

By using our resources, the target audience are able to educate themselves on the different types of viruses that have had an impact globally and realise the importance of implementing preventive measures to curb the spread of these viruses.

## 3 Methodology

### 3.1 Needs Analysis

An online survey was conducted to assess the needs of the target audience. There were 41 respondents in our survey.

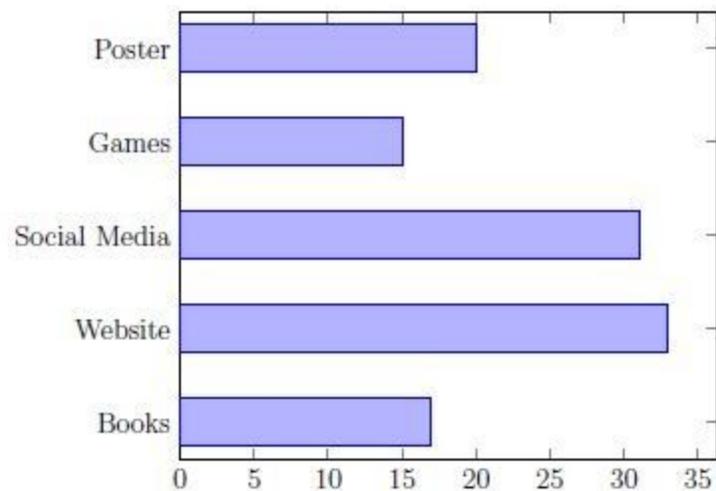


Figure 1: Resources that Respondents Prefer

80.5% of respondents favoured a website, while 75.6% of them look forward to seeing a social media account.

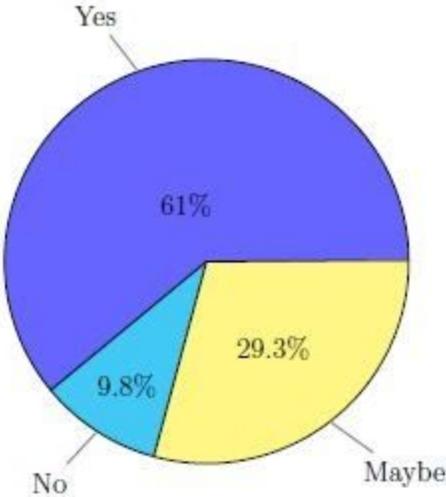


Figure 2: Support for the Development of a Website

61% of respondents want to have a website about viruses while only 10% of them do not want a website to be developed. As a website is an accessible platform for everyone in this digital age, a website is arguably the best platform to disseminate information and educate the target audience.

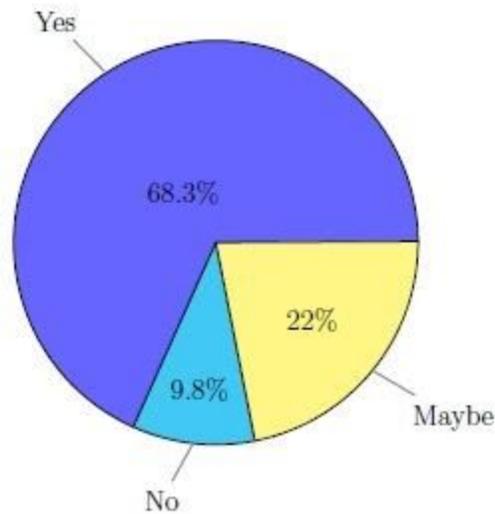


Figure 3: Support for the Creation of a Booklet

68.3% of respondents want to have booklets about viruses while only 10% prefer not to. Hence, booklets are one of the main resources being created. Booklets can provide details at a quick glance, helping people to understand important concepts without reading long and wordy text.

### 3.2 Development of Resources

The initial plan was to only develop a website, a booklet, and an Instagram page. However, in the process of the development of the resources, it was realised that more resources would need to be created to better achieve the initial objectives. Therefore, a video and a poster was created. A physical booklet is not feasible during this CoVID-19 period, so it was replaced with e-Booklets instead.

### 3.2.1 Website



Figure 4: A screengrab of our Website

A website was created which includes layman definitions for common keywords as well as statistics and data for high-profile pandemics and epidemics caused by viruses. All these highlight how each virus impacts societies and economies severely. Viewers can also access other resources created such as the poster, the Instagram page, e-Booklets as well as the video. The link to the website is [projectvirusminus.com](http://projectvirusminus.com).

### 3.2.2 Instagram page



Figure 5: A screengrab of our Instagram page

The resources were also promoted on social media as suggested by 75% of respondents from the needs analysis survey. Interesting facts about viruses are also posted here. Currently, the Instagram page has gathered 217 likes and 103 followers. This shows that there is a wide outreach for the resources developed and the effectiveness of social media as a publicity tool.

### 3.2.3 e-Booklets



Figure 6: A screenshot of one of our E-Booklets

Two e-Booklets were also created to educate the target audience on how they can protect themselves from viruses. They are accessible on the website and can be downloaded. These e-Booklets provide details about viruses at a quick glance as they only contain essential information about viruses.

### 3.2.4 Poster



Figure 7: Our poster on the entrance of the Dining Hall

Original hand-drawn posters were created which are currently pasted around the Hwa Chong Institution Boarding School compound. The Boarding School has an estimated number of 300 student-boarders, allowing the posters to reach a big audience. The posters are pasted at areas with high traffic, for example at the entrance of the Dining Hall where boarders have their meals everyday.

### 3.2.5 Video

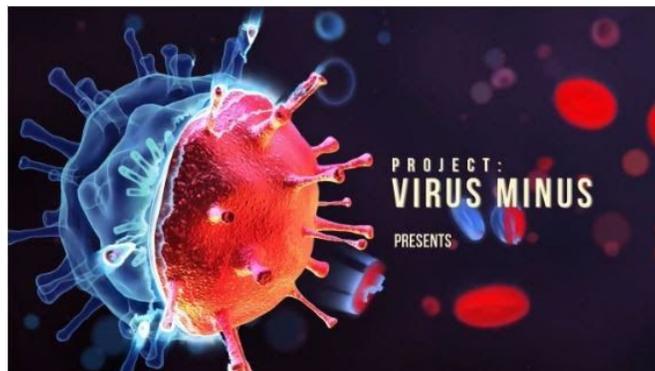


Figure 8: A screengrab of our video

A video has also been created to educate our target audience about the preventive measures. It is published on [projectvirusminus.com](http://projectvirusminus.com), and can be easily accessed. As the video can be downloaded, it can also act as an educational tool.

### 3.3 Pilot Test

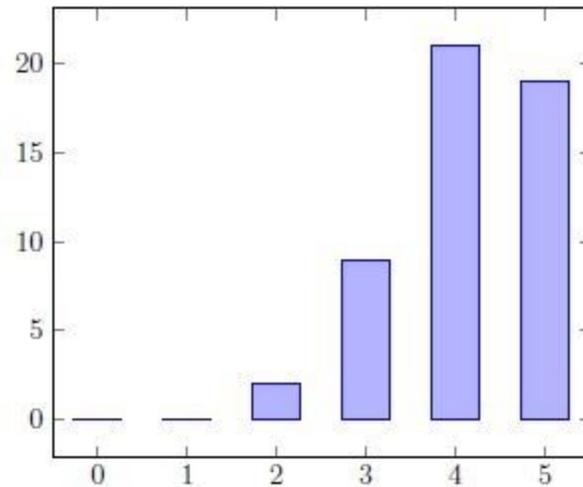


Figure 9: Ratings of our Website

43 respondents were highly satisfied with our webpage, giving it a rating of 4 and above. The comments given are mostly positive, with some stating that the website offers easy access to other resources. One of the reasons given for a high rating of our website is also the aesthetically-pleasing design.

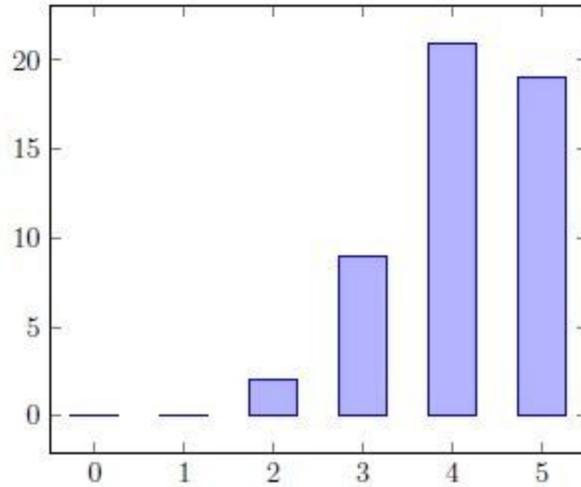


Figure 10: Ratings of our Instagram page

Many respondents were satisfied with our Instagram page, with 40 out of 51 of them giving a rating of 4 and above. Some stated that they liked the posts regarding some of the interesting facts on viruses. Some of the suggestions given were taken into account and subsequently implemented, such as including tables to explain the difference of a virus and a bacteria.

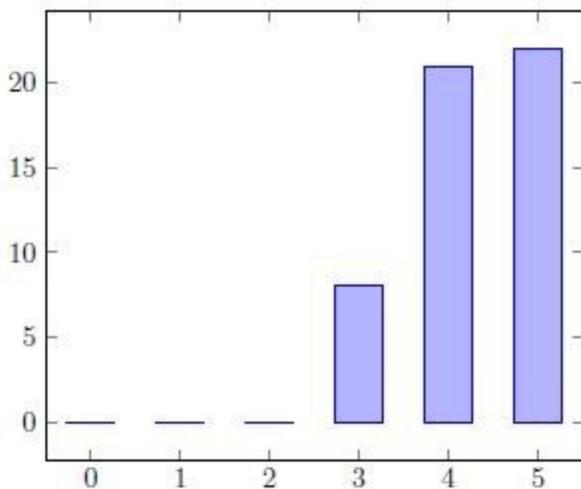


Figure 11: Ratings of our e-Booklets

Ratings for the e-Booklets are generally favourable. 43 out of 51 respondents gave the e-Booklets a rating of 4 and above. There were no respondents giving a rating fewer than 3 which highlights the effectiveness of the e-Booklets. Some of the comments also stated that the e-Booklets provide sufficient information, not the content was not wordy nor hard to understand.

For the posters and video, a pilot test was not carried out but a quiz was conducted to assess the effectiveness of this resource package. The respondents did the quiz about viruses before and after they had accessed these resources.

After comparing the results, it can be concluded that the respondents improved after viewing the resources. The average score for the Pre-Assessment is lower than that of the Post-Assessment, which is an average 6.68 points and 12.6 respectively. In addition, a significant improvement was seen in terms of the respondents' knowledge about viruses as well as the impacts brought by viruses to the world.

#### **4 Limitations**

The website is not optimised for mobile viewing. This is because the website is self-coded using HTML, CSS and Javascript. A physical booklet was also not published due to concerns of physical contact amidst the CoVID-19 period. In addition, face-to-face interviews with any doctors or virologists were also not able to be carried out.

#### **5 Conclusion**

Project Virus Minus had been a challenging project to undertake as the development of resources took up a lot of time. We had to spend time and effort to code the website and gather information from credible sources that are mostly lengthy and wordy. This project has enabled us to develop many skills such as critical thinking and creativity.

Perseverance and patience are also the main takeaways from this project as self-coding a website and making a video have never been as easy as we thought before.

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