

CATEGORY 4 RESOURCE DEVELOPMENT

Group ID 4-087 Project Igienă

**Duan Yuchen 1P1 (04)
Eliot Lim Jing Xun 1P1 (06)
Lim Yun Yang 1P1 (16)
Yeo Yu Xiang 1P1 (30)**

ABSTRACT

Project Igiene provides a comprehensive package of resources to educate students on the importance of hygiene through a website, which includes interesting infographics and videos that can allow students to better understand the importance and raise awareness on hygiene. The website provides an insight to a variety of topics on hygiene, including the definition of hygiene and the relevance of practising hygiene in school. Through this website, we hope to encourage students to practise hygiene regularly. With Instagram being a popular social media application that is widely used by students of our age group, we dedicated an Instagram account where we will encourage others to visit our website and post information on hygiene, through various forms like quotes, that we would like to let other students know.

1 INTRODUCTION

1.1 Rationale

The topic on hygiene is highly discussed nowadays, during this pandemic and the ability to lead a hygienic lifestyle is sparking concern. The amount of germs and viruses spotted on common surfaces are overwhelming, and they can easily spread to one another if one does not practise proper hygiene. Many hygiene practices that are not practised enough include the washing of hands with soap and water, carrying out wipe-downs, and the control to not speak to one another when eating without masks on.

Some research that we have carried out has further reinstated that hygiene habits are not commonly practised among people, and this has given us the idea to further research into this topic. According to a study conducted by the Japan Times (2020), men wash their hands less frequently as compared to women after they have used the toilet. A mere 31% of men and 65% of women wash their hands after using the toilet. This is certainly alarming as there are many people who do not wash their hands regularly,

and this habit must be changed. Washing of hands removes germs that are not visible to the naked eye and is a critical hygienic habit that must be adopted among HCI students.

Furthermore, many people also tend to not have the tendency to carry out wipe-downs after using common surfaces such as tables and chairs. Another study carried out by Yepiz Gomez, Bright and Gerba (2010), bacteria such as coliforms are found in 89.2% of kitchen towels and 70% of tables in contact with public areas. This is definitely alarming, as many people do not carry out wipe-downs despite the resources like paper towel and soap solution is provided, people still do not carry out wipe-downs. Hence it would be crucial that we raise awareness on the importance of carrying out wipe-downs, and reduce the spread of viruses.

Raising awareness on this topic will definitely have a substantial impact on reducing the spread of viruses significantly. In order for students to adopt good hygiene habits, education on this topic would allow them to better understand their actions can go a long way in the long run.

1.2 Objectives

For our objective, we plan to educate HCI students on the importance of a hygienic lifestyle. This is especially relevant as a pandemic is currently present and it is not over yet, hence it is even more critical that we lead a hygienic lifestyle. Our ultimate goal is for students to be aware of what they should do to lead a hygienic lifestyle, and how they keep the school a clean place to study in.

1.3 Target Audience

We focus on educating and raising awareness among the Secondary One to Secondary Four Hwa Chong students on the importance of leading a hygienic lifestyle and the relevance of practising hygiene in the different locations in school.

1.4 Resources

A comprehensive list of resources that we have worked on, including:

- ❖ Project Igiene Website:

- <https://sites.google.com/student.hci.edu.sg/projectigiene/home>

- Short (animated) videos

- Infographics

- ❖ Project Igiene Instagram:

- <https://www.instagram.com/igiene69/?hl=en>

- Short information and quotes on hygiene

The main resource we have created, a *website*, contains videos we uploaded on how hygiene can be maintained and reasons we need to maintain hygiene with references emphasising on the importance of leading a hygienic lifestyle. These videos explain the common methods that can be done to maintain good personal hygiene. These exercises should be practised daily, and show a thorough insight on how hygiene can be practised in different locations in school. An infographic has been included on each page of the website to summarise the information on the page. Lastly, the *Instagram page* where we post short quotes, infographics and information on the importance of a hygienic lifestyle, promoting awareness of maintaining good hygiene.

2 REVIEW

According to a study done by B4 Brands (2013), proper hand washing can reduce diarrhea rates by 40% and when students touch their food with contaminated hands, they spread food borne illnesses like salmonella and e.coli. Therefore with proper handwashing, illnesses that are related to the respiratory system can be reduced by 20%. Furthermore, only 20% of people wash their hands before preparing food and less than 75% of women and less than 50% of men wash their hands after going to the bathroom. Additionally, everytime a toilet is flushed with the lid open, a fine mist containing harmful bacteria such as staph is spread over a large area

of 6 square meters. Therefore, the practising of hygiene in the toilet and the washing of hands when necessary is critical as they will be able to reduce a large amount of bacteria from being spread. It is recommended that every 15 seconds which we spend washing our hands, 10 times more bacteria is removed. However, the average person spends less than 10 seconds washing their hands.

Thus, we chose the topic to be hygiene because we have observed that many students are not washing their hands after visiting the toilet, even in this time of the pandemic. Hence, we see the need to teach our HCI students how to maintain cleanliness and live a hygienic lifestyle to reduce the spread of viruses.

3 METHODOLOGY

3.1 Needs Analysis

We conducted two surveys, one somewhere around March and the other during August, and for the first survey we had general questions where we asked whether they practised hygiene while for the second survey, we asked more specific questions related to hygiene, after being given some feedback on the precision of the questions asked. Approximately 51.6% of our respondents are willing to use a website to learn more about this, and another question asked was whether a website is sufficient to promote this, and around 22.6% felt that it was not really sufficient, hence we incorporated videos and infographics alongside with an Instagram account.

Overview of some important questions asked:

- 1) One of the overarching questions asked was whether students led a hygienic lifestyle, of which 64.5% answered yes to, was asked specifically once again whether they practised at home, and this time 93.3% of the respondents answered “Yes” and this shows that most students probably do not lead a hygienic lifestyle outside of their

home, for example in school, and hence our decision to create such a website.

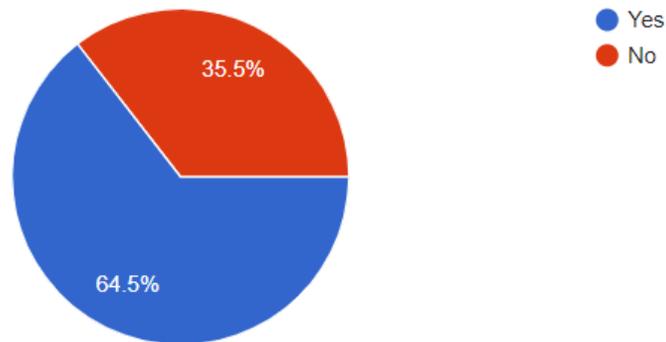
- 2) Next, we asked whether students feel that their family or friends in school lead a hygienic lifestyle, and close to 25.8%, from the first survey, and 10%, from the second survey, mentioned that they do not, and this shows that they might have been influenced by people around them, and therefore might not lead a hygienic lifestyle.
- 3) Another important question we asked was whether students took the initiative to remind their friends and family to practise good hygiene and more than half of the respondents, approximately 51.6%, did not take the initiative to do so, and therefore with nobody reminding them they hence continue the habit of disregarding the need to maintain their personal hygiene.
- 4) Lastly we ended with specific hygiene questions whether certain hygiene practices were being carried out currently. Some notable questions included whether students washed their hands frequently and carried out wipe-downs after using common surfaces and 26.7% and 33.3% answered “No” to these questions respectively and this shows that there is a need to improve on this. One question that was relevant to the current period was whether they covered their mouth and nose with a tissue after coughing or sneezing and surprisingly 33.3% do not do so and this shows us the cause of the spread of droplets and harmful particles that are too small to be seen.

We also understood from the respondents through one question we asked which was about whether it was important to them to lead a hygienic lifestyle at school or at home, and luckily, all of them agreed and hence we need to educate them on how they can do their part.

3.2 Survey results

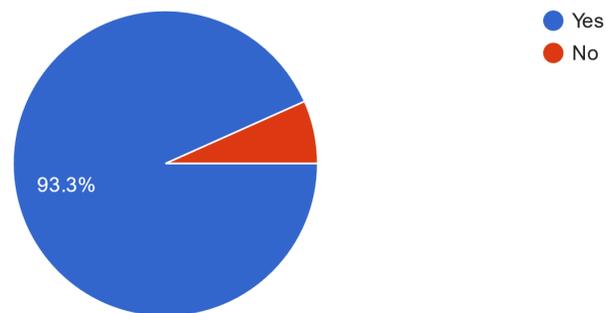
Firstly, do you lead a hygienic lifestyle?

31 responses



Do you lead a hygienic lifestyle at home?

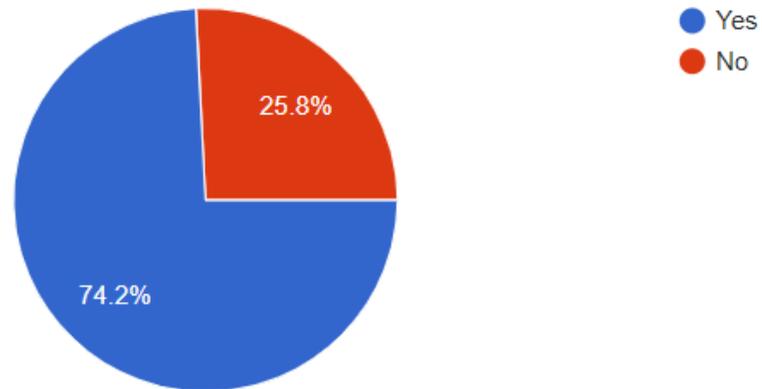
30 responses



From these, we are able to see a consistency that the majority of the respondents agree that they do lead a hygienic lifestyle, but there are still a number of people who do not lead a hygienic lifestyle. Thus, we want to try to reduce the number of students who do not practise good hygiene and increase the number of students who take note of their personal hygiene.

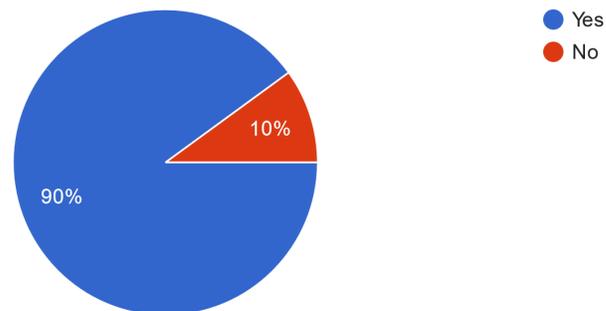
Secondly, do your family members and / or friends lead a hygienic lifestyle?

31 responses



Do your family member and/or your friends practice good hygiene?

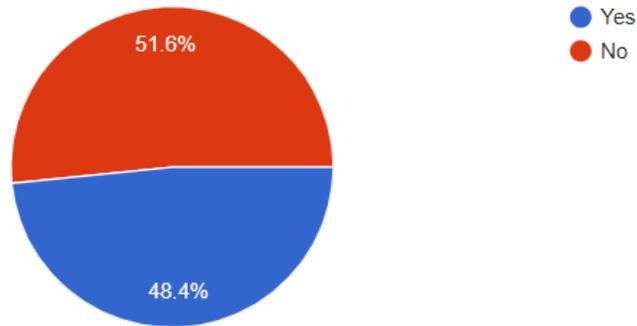
30 responses



These responses show us that the majority of students have families that practise good hygiene, but there are also some whose families do not take care of their hygiene. This supports our motive to promote hygiene among more students.

Do you take the initiative to remind them to be hygienic at all times? (For example, you see them not practising good personal hygiene, would you remind them?)

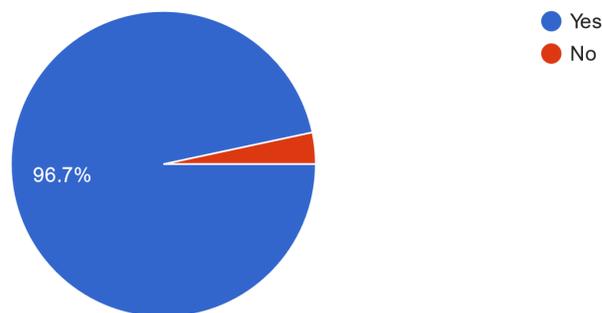
31 responses



The responses to this question show that slightly more than half of the respondents are not very concerned about whether their family and friends practise good hygiene, which shows us the need to give them a better understanding of why practising hygiene is very important, so that they understand that it is necessary to remind others to practise good hygiene regularly.

Do you think it is important to lead a hygienic lifestyle at school or at home?

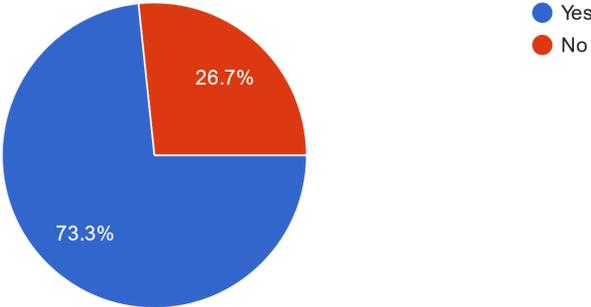
30 responses



This shows us that most of the respondents think that maintaining good personal hygiene is very important, regardless of the location, whether it's at school or at home. Thus, it would be easier to give them a more comprehensive understanding of hygiene.

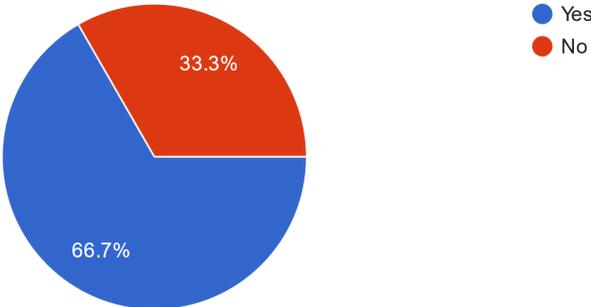
Do you wash your hands frequently in school?

30 responses



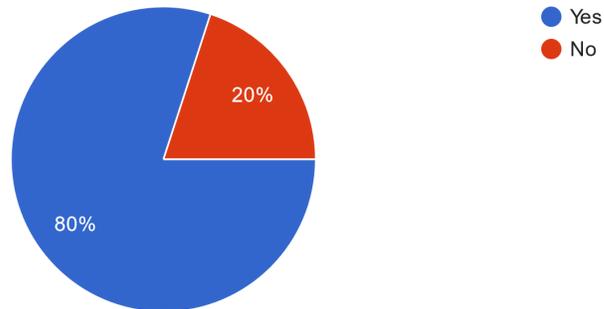
Do you carry out wipe-downs after using common surfaces in school?

30 responses



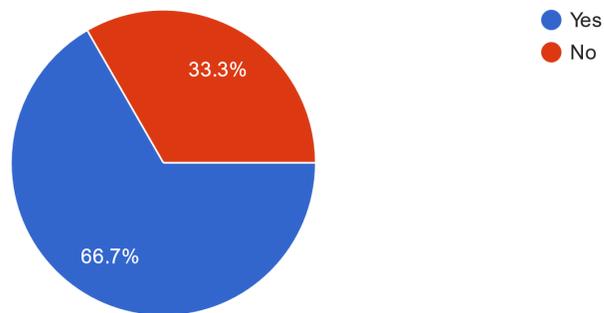
Do you wash your hands with soap thoroughly after using the bathroom?

30 responses



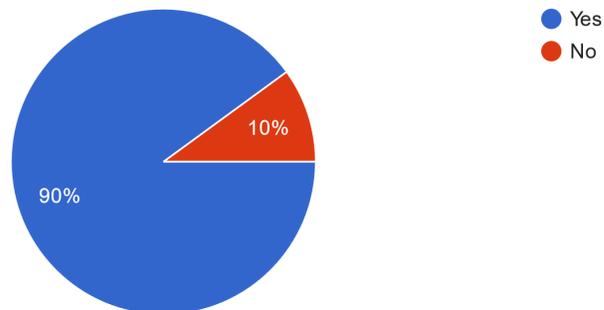
Do you cover your mouth with tissue after you cough or sneeze?

30 responses



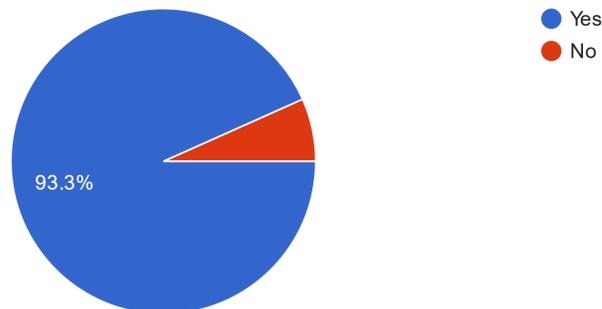
Does your class often sweep and mop the floor?

30 responses



Is the rubbish bag in your class taken out to the designated locations?

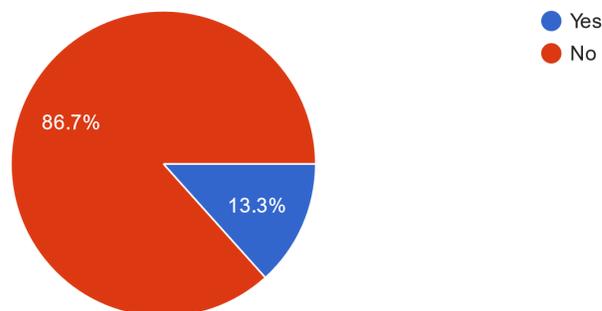
30 responses



These questions were asked to find out if the respondents do practise these hygiene practises which help maintain good hygiene and prevent the spread of germs and bacteria. Fortunately, there is a consistency observed that most of the respondents do many hygiene practices regularly, which makes it easier for us, but there are still some that do not. So, we aim to influence those who do not practise good hygiene to start having a habit of doing so.

Is your class filled with rubbish on the ground?

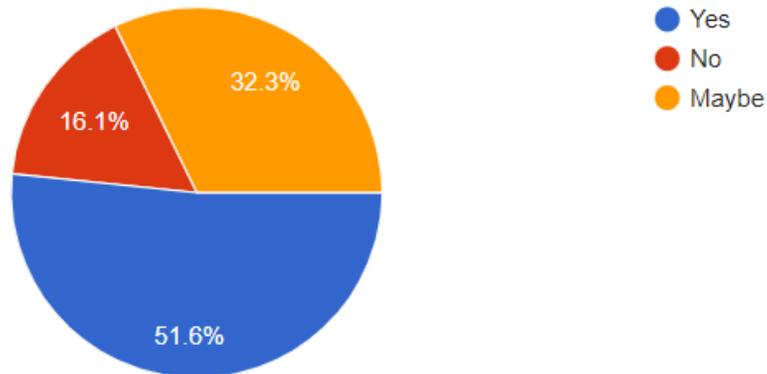
30 responses



This result shows us that most of the students' classrooms are not clean and unhygienic and only a few have clean classrooms. This tells us that it is very important for us to give the students a better understanding of hygiene, so that they will keep their surroundings clean and get rid of germs and bacteria, and also be hygienic, which will greatly improve the results we are looking at here.

Most importantly, would you be interested to visit our website?

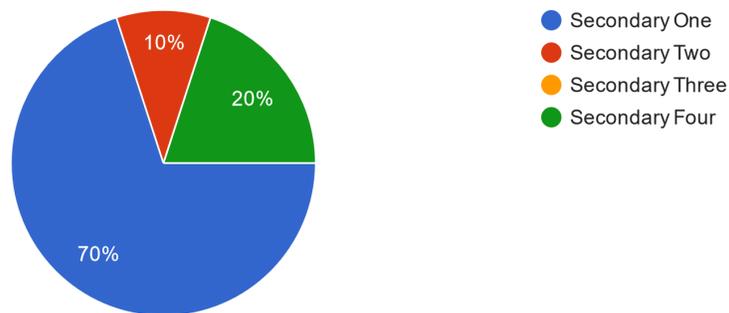
31 responses



This result shows that most of the students would be willing to visit our website which encourages us to carry on with our project on hygiene as we know that our efforts to raise awareness about practising good hygiene would pay off.

Which level are you from?

30 responses



This shows that we managed to collate the responses of students from different levels, to try and get a little more information, in the 2 forms.

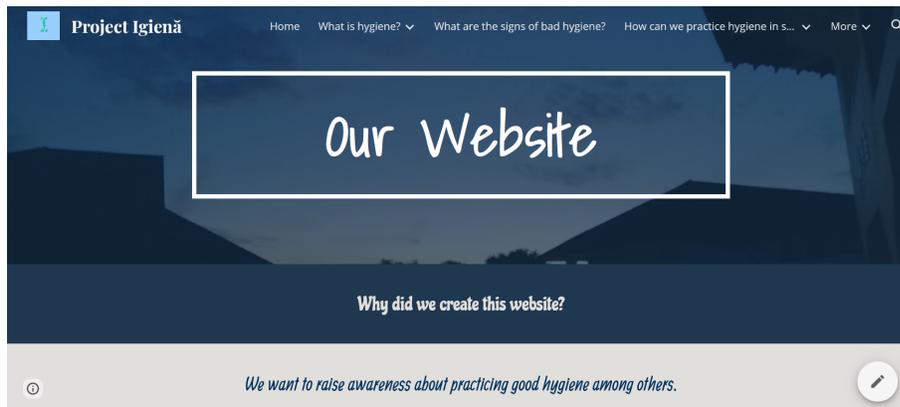
Through the two surveys, we were also able to gain a better insight into finding the root of why they do not focus on practising hygiene, or the reason why they might not be able to practise hygiene. This gives us

valuable feedback, and now we know what are the practises where we need to focus on.

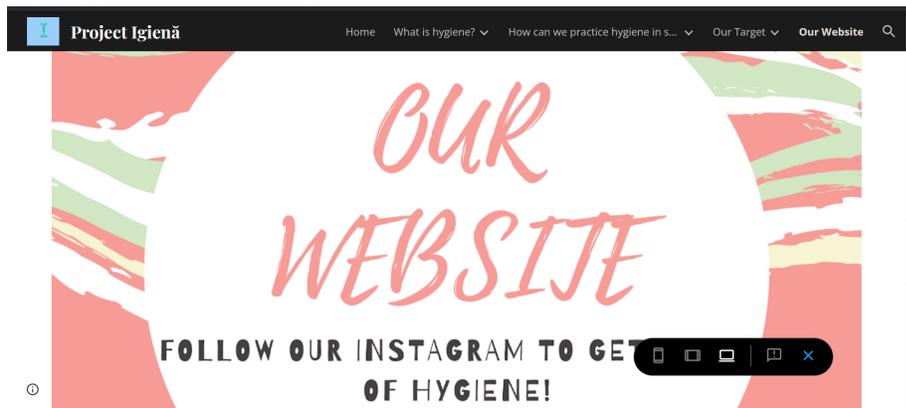
3.3 Development of Resources

We used Google Sites to create our website and we have included brief information about hygiene which is comprehensive and illustrations and videos which further explain our content. At the end we made use of a pop quiz and feedback form to test their understanding and receive feedback from them after they have viewed our website, where we are able to know better what aspects we can improve on.

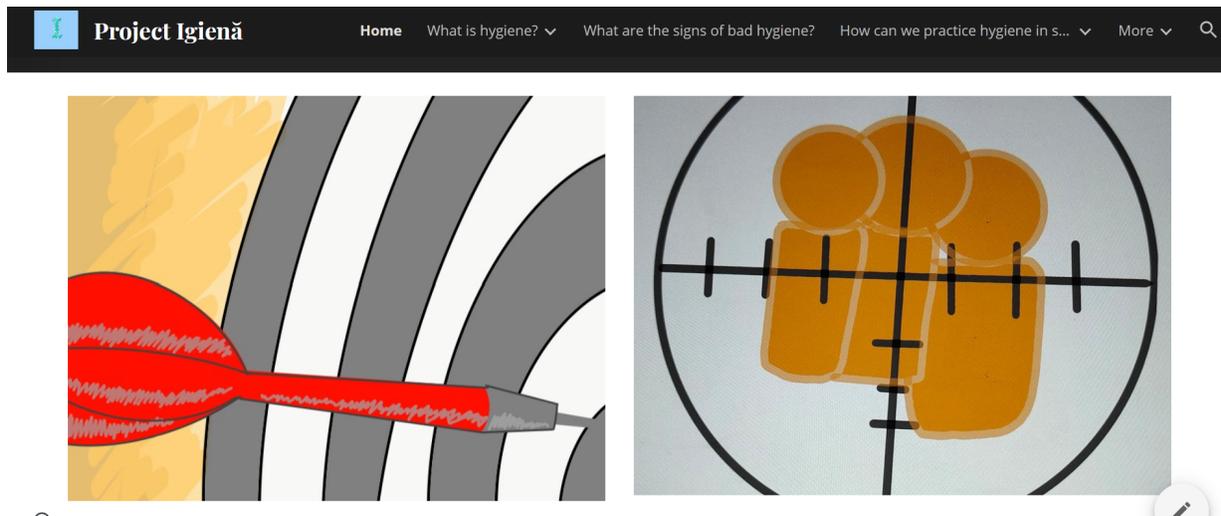
Website Page:



Infographic:



Drawings:

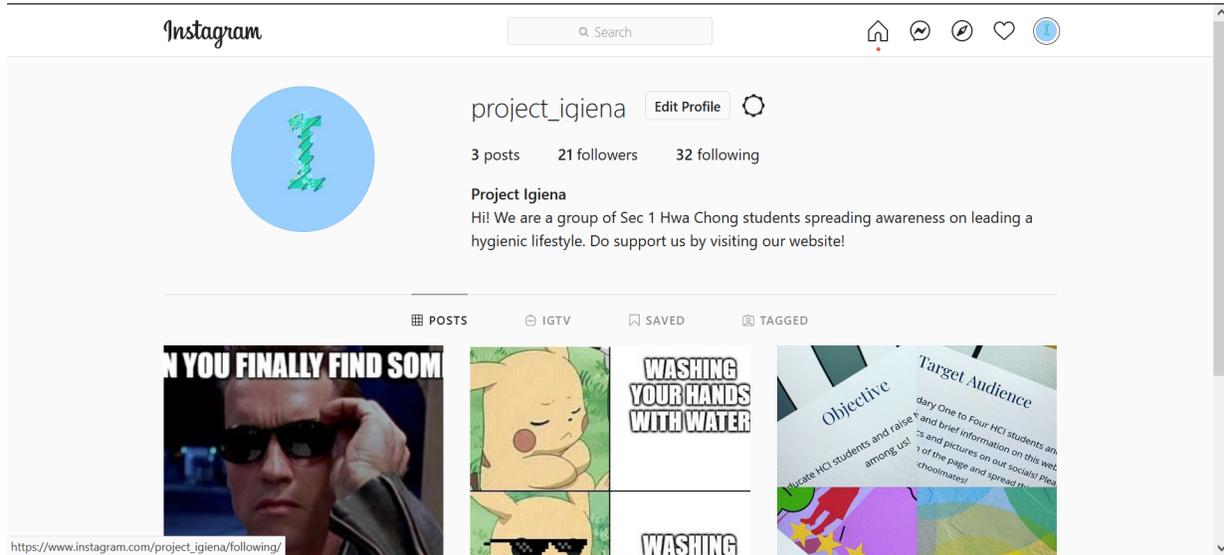


Videos:

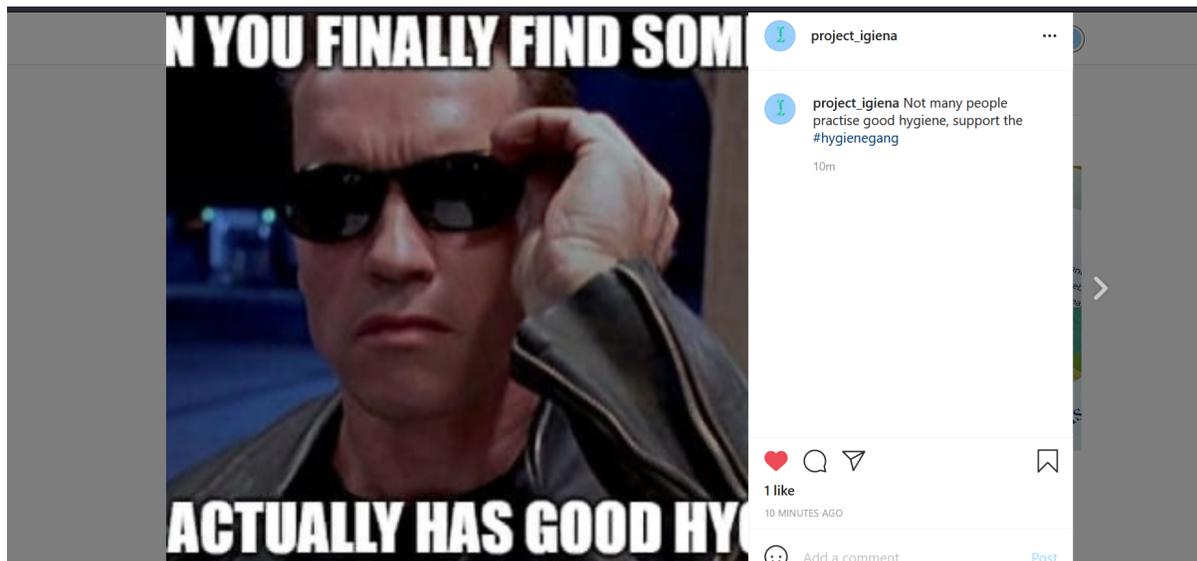


We also have an Instagram account where we can promote our website and post weekly posts related to Hygiene to remind students to practise good hygiene in an interesting way. We also post updates about our other resources, such as the website, in our Instagram account too.

Our Instagram account:



Examples of what we post in our Instagram account:





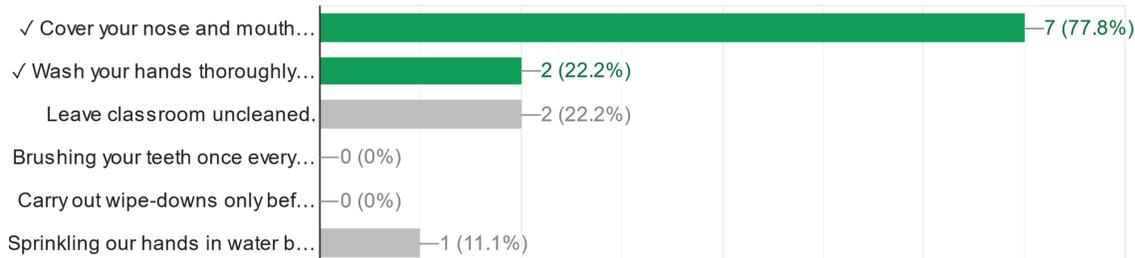
3.4 Pilot Testing

For Pilot Testing, we have conducted 2 surveys, one of which is the pop quiz and the feedback form, as shown below, to those students that have visited the website and Instagram Account to test their new understanding of hygiene and to gather their honest opinions about our project, and both of which would show the effectiveness of our project to promote hygiene among more students. For the pop quiz, we asked several questions on what was taught on the website and for most of the questions, we got the results we looked forward to. The feedback form also allowed the participants to share their thoughts and comments about our resources.

The following are the results we obtained from from the Pop Quiz:

What are some ways to practice good hygiene? (There might be more than one answer)

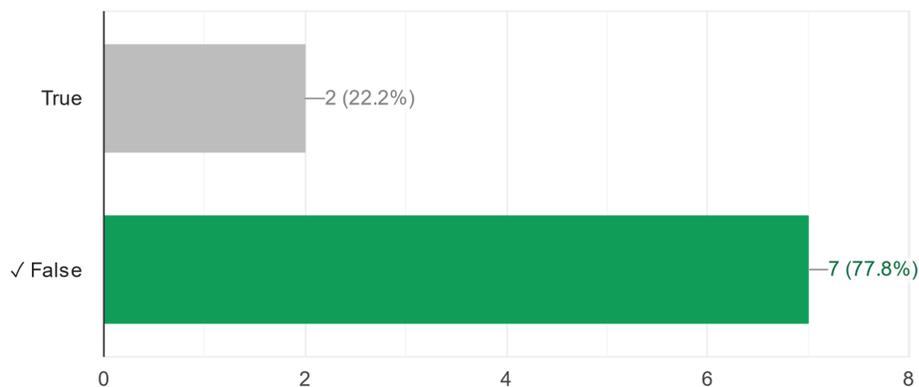
1 / 9 correct responses



From the results as shown above, we can conclude that most of the participants are not entirely sure about the practises to maintain good hygiene as we can see that most of the participants know that covering your nose and mouth while sneezing and coughing can maintain personal hygiene, but most of them also do not seem to know that washing their hands thoroughly with soap and water after using the restroom is an essential practise to maintain good hygiene too, however, we also observed that 1 of them thinks that it is alright to dip our hands in water after using the bathroom and that 2 of them thinks that leaving their classrooms uncleaned is alright, which significantly shows that there are still some who do not fully understand an aspect on the topic of hygiene - the practises of hygiene.

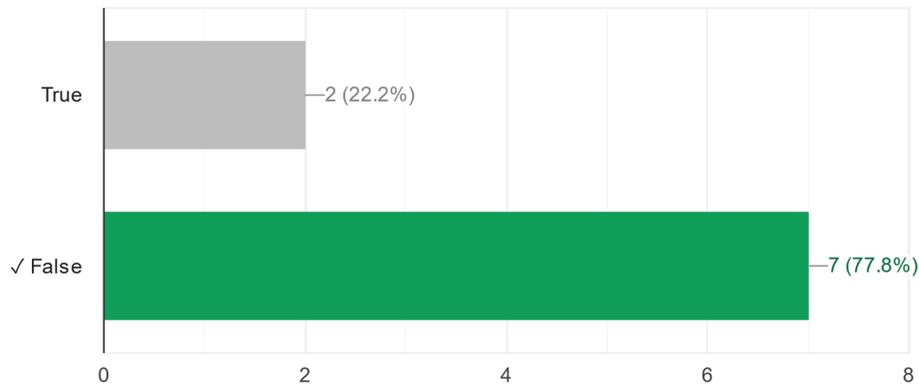
We should not practice hygiene in the canteen because it would eventually be cleaned. (True/False)

7 / 9 correct responses



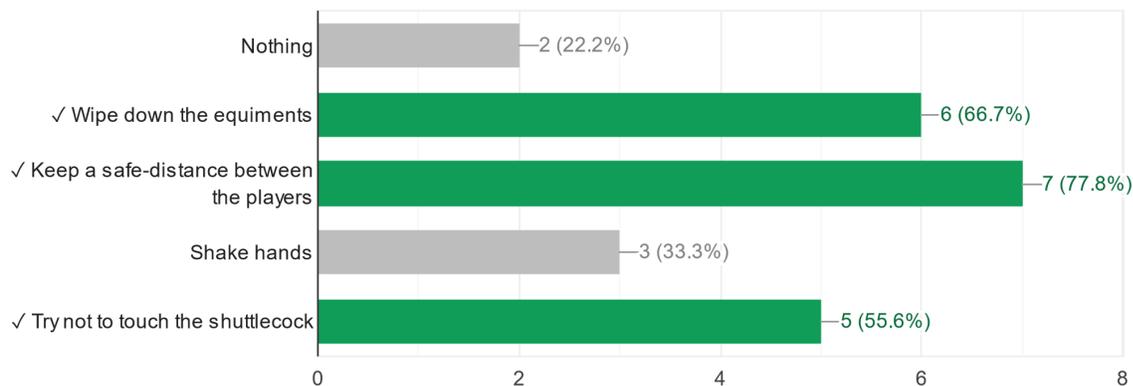
It is advised to use your hands to touch the main part of the mask to put it on easily. (True/False)

7 / 9 correct responses



What should we do before, during and after playing badminton? (choose more than 1 answer)

5 / 9 correct responses

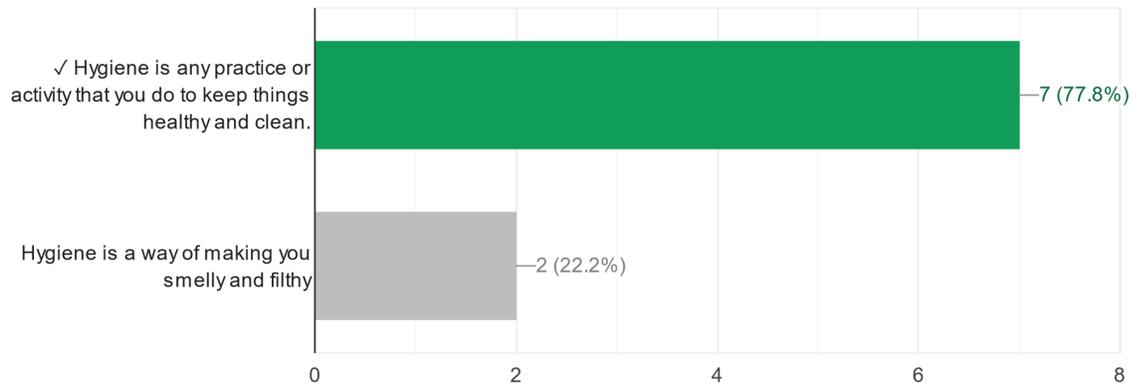


Row 1: Yes

From these 3 questions' responses, we see that most of the participants have gained a clear understanding on how they can apply their knowledge on hygiene practises on different scenarios, even though there are still some of them that do not. However, in general, the results still show us that most of the participants do have a clear understanding of the appropriate actions which can help maintain good personal hygiene and prevent the spread of germs and bacteria after going through our resources, which implies that our resources have been able to help most of the participants to be more aware of the practises of good hygiene.

What is hygiene?

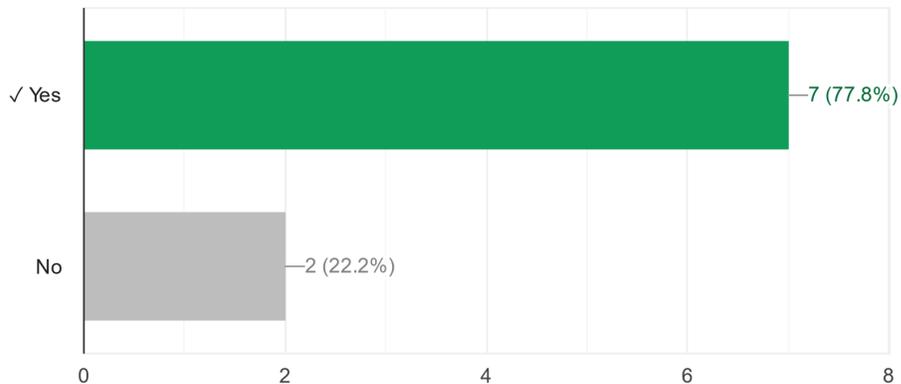
7 / 9 correct responses



In this set of results, we can see that our resources have allowed most of the respondents to be very clear of what hygiene is.

Is hygiene important?

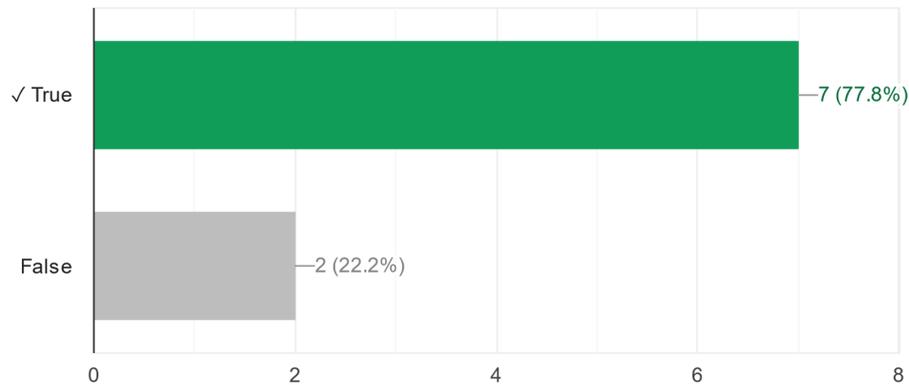
7 / 9 correct responses



From this question's responses, we observed that most of the participants find hygiene very important after going through our resources, which shows that our resources, such as the website and Instagram account, were effective in promoting the awareness of maintaining good personal hygiene.

Leading a hygienic lifestyle means that we take care of our personal hygiene. (True/False)

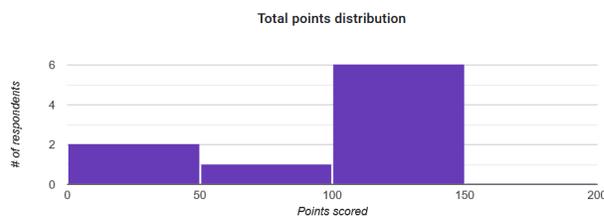
7 / 9 correct responses



From these responses, we see that most of the participants understand the definition of “leading a hygienic lifestyle”, which shows that our resources have allowed students to grasp a better understanding of hygiene and what leading a hygienic lifestyle is.

Insights

Average	Median	Range
89.44 / 130 points	115 / 130 points	0 - 125 points



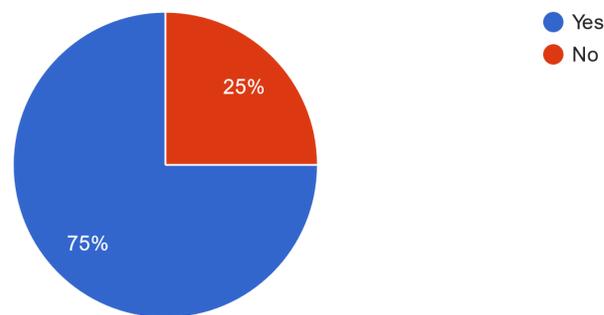
From this data taken from the pop quiz, we are able to generally tell from the pop quiz that most of the respondents have learnt much more from our resources and they have grasped a greater understanding of maintaining good personal hygiene as most of them managed to answer most of the questions correctly. Also, the comparison between the results from the needs analysis we conducted at the start of the year and the results from the pop quiz does show the same idea that our resources were effective in promoting hygiene among more people since in percentage-wise, more

students have shown that they have gained much more knowledge about hygiene after reading our resources. Thus, it reasonably shows that our resources have managed to reach our aim which is to raise awareness on the topic of hygiene.

The results shown below are taken from our Feedback Form:

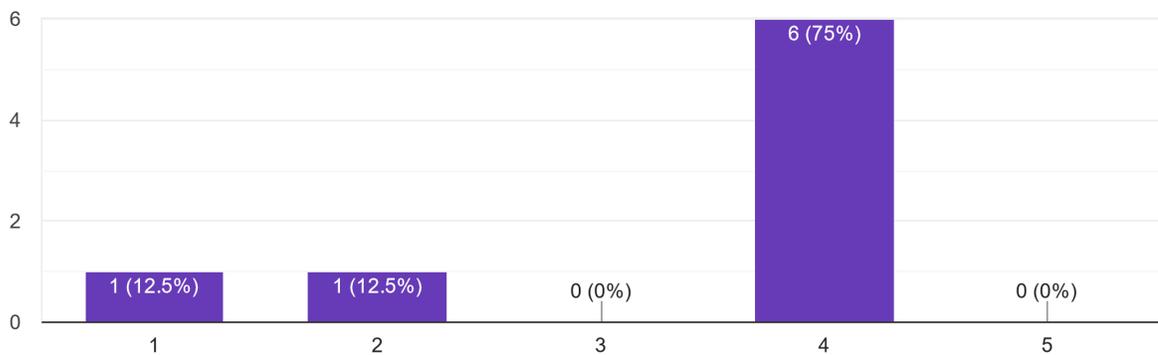
Do you think our website was well-elaborated yet easy to comprehend?

8 responses



How clear and comprehensive was our website to you?

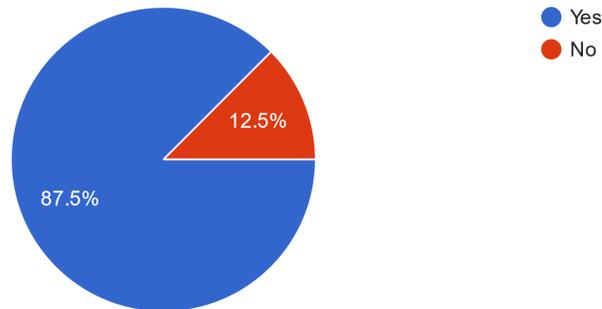
8 responses



From the data collected above, we can conclude that most of the students, who had gone through our resources, felt that our website was quite clear and had sufficient information when explaining about the different aspects of hygiene.

Did our project's resources help remind you of the importance in practicing good hygiene or give you a better insight on leading a hygienic lifestyle?

8 responses



From this result from the question shown above, we can see that our project's resources have been effective in reminding students about good personal hygiene, which is proven by all the respondents' responses.

Thus, from this Feedback Form, we are able to tell that most of the participants felt that our resources were good enough to promote good personal hygiene among more students.

**(Although respondents are very few for the pop quiz and feedback form, our results are still considered as quite reliable as for some of the questions, we can observe a consistency of the results obtained.)

4 OUTCOME & DISCUSSION

4.1 Outcome

From the results of the forms above, we are proud to observe that most students who participated in our website learnt more about hygiene and how to practise it. Thus, we know that our website and Instagram has helped Secondary 1 to 4 Hwa Chong students to have a better understanding of hygiene. However, students have stated in the feedback form that the posters were a bit too wordy and that there were too many fonts so it was difficult to read. We also received comments saying that we should post more on our instagram. And for both of the comments, we have

worked on them to improve our resources for the convenience of our participants.

4.2 Limitations

Our group had difficulty meeting up to complete tasks together. For example, some of us did not have enough time or faced challenges which caused the inability to attend the meetings frequently or do the assigned tasks on time. Also, when we were conducting our forms, we did not manage to get a lot of people to do them despite constantly asking more to do them. Another limitation we faced is that we realised that not all of the participants had thoroughly looked through all of our resources, thus, they might not be impacted greatly on their understanding of hygiene. We tried to minimize this by making our resources as interesting as possible to let readers enjoy looking through our website. Therefore, we would be constantly working on improving every aspect which we can do to our best.

5 CONCLUSION

The whole journey of the project has been a tiring one full of challenges and limitations such as our time management, understanding what we need to do, communication etc. However, we still managed to solve those problems we faced by working together as a team and adapting to each other's challenges so that we can be efficient in our work. From the results of the forms we conducted at the end, we have seen that most of the participants have learnt more about hygiene and how to be hygienic. We, ourselves, have also learnt that hygiene is a very important topic that everyone should take note of seriously especially during the pandemic so that our lives can return back to normal.

Project Igiene was not a project that was smooth sailing as changing the habits that students have towards leading a hygienic lifestyle is challenging. Hence we are constantly researching this topic to find out more about the mindset of students and we had to use concise information to spark interest in the students. We needed to be creative, to think out of the box to convey

the information and for us to raise awareness through the different resources we created in order to keep everyone informed on hygiene. In the end, we aim to achieve our objectives, to educate and raise awareness on the importance of hygiene.

6 REFERENCES

Research

Çelik E.Y., & Yüce, Z. (2019). Investigation of the Awareness and Habits of Secondary School Students about Cleanliness and Hygiene from Various Variables. *International Education Studies*, 12(4), 173-184

The Japan Times (2020, March 6). News on Hands down, Men Worse at Bathroom Hygiene that Prevents Coronavirus.

Yépiz-Gómez, M.S., Bright, K., & Gerba, C. (2006). Identity and Numbers of Bacteria Present on Tabletops and in Dishcloths Used to Wipe Down Table Tops in Public Restaurants and Bars. *Food protection trends*.

B4 Brands (2013). Research on the facts about handwashing and hand hygiene. Retrieved from:

<https://b4brands.com/blog/facts-hand-washing-hygiene/>