

CAT 4 RESOURCE DEVELOPMENT

Group 4-009

iConvert

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ABSTRACT

iConvert is an interactive, creative and convenient resource package aimed at informing, assisting, and showing Secondary Two Hwa Chong students about upcycling, such that they can adopt the habit of upcycling on their own, and play their part in saving the environment. This resource package consists of 3 primary resources— namely, a website, an Instagram page, and live workshops. The resource package provided easy access to information as they were on multiple online platforms. Furthermore, due to the COVID-19 restrictions, people were not able to leave their homes to get resources, and hence having our package mostly online was a more feasible and convenient idea. Students were able to view the resources even while being stuck at home.

1. INTRODUCTION

1.1. Rationale

On 2019 August 12th, the National Environment Agency (NEA) did a report which indicated that Singapore disposed of 2,984,000 tonnes of trash that year, which was an immense number. iConvert aims to use a more creative idea to encourage people to do their part to protect the environment. There is a lack of resources about upcycling available, and they do not teach them about upcycling that effectively. Also, with a lack of awareness and resources about upcycling, naturally few people would Upcycle at all.

1.2. Objectives

The objectives of iConvert were to:

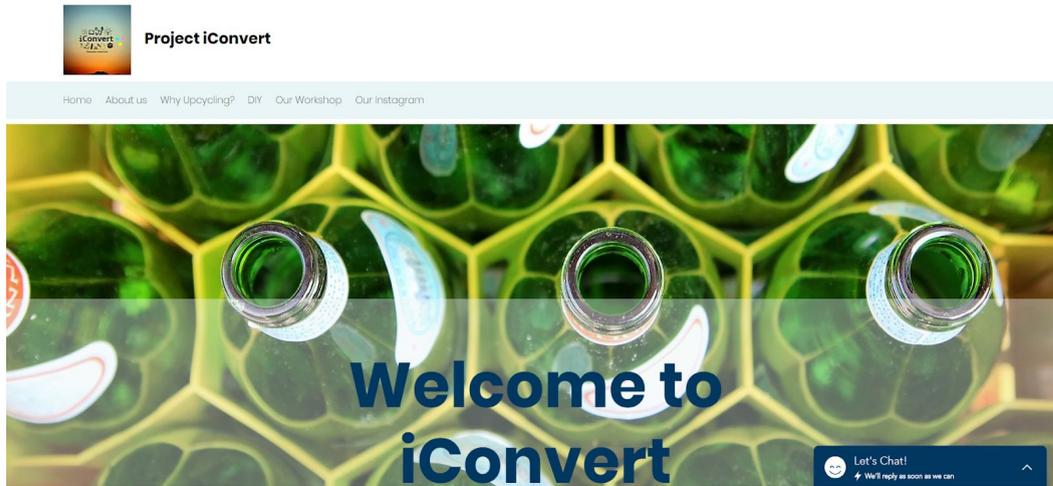
- spread information about upcycling to HCI students.
- encourage HCI students to begin upcycling items themselves.
- promote an environmentally-friendly idea of upcycling.

1.3. Target Audience

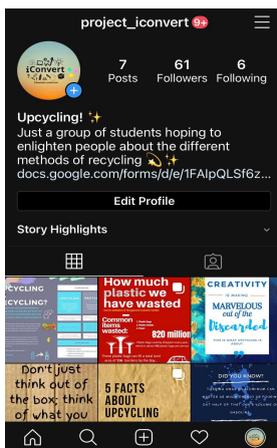
The target audience was Secondary Two students from Hwa Chong Institution.

1.4. Resources

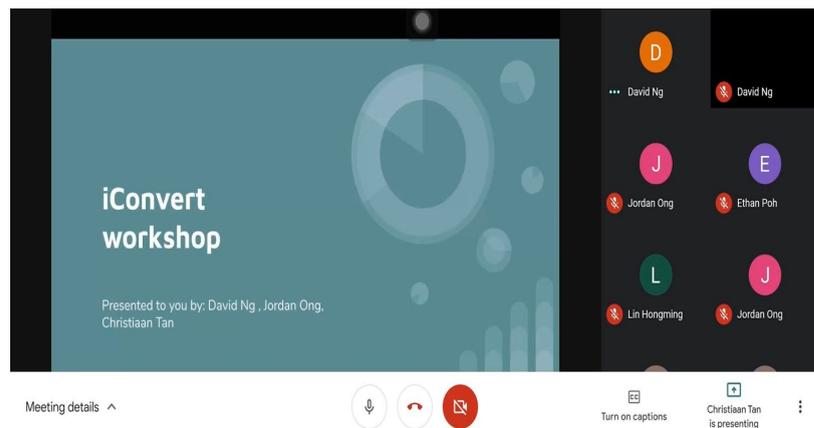
The resources on online platforms consisted of a website, an Instagram page, and workshops.



Website Home Page



Instagram Page



Our workshops

2. REVIEW

Most online platforms explaining upcycling ideas only explain what can be upcycled, and what the final product is. Most of these websites lack detailed, clear instructions, and they expect the viewer to figure out how to make these items themselves, which is not that beneficial. Therefore, a big part of this project's resources is based on tackling that problem by having more informative platforms with instructions so as not to confuse the user.

Secondly, upcycling is mainly popular in the western countries like America, where people have easy access to items such as wood planks or metal. As a result, many of the ideas they suggest are too large scale and are not suitable for Secondary Two students. Hence the resource package was designed such that it requires minimal effort and materials that are easily accessible in Singapore.

1. Turn Adult Socks Into Toddler Leggings



Adult socks can find a new use as toddler leggings. Sew 4 Bub provides step-by-step sewing instructions to make these pants for your little one. Don't let a little sewing scare you. It doesn't require advanced sewing chops and the process is a lot faster than it looks. Get the instructions for Toddler Leggings.

2. Use a Cassette Case to Hold a Gift Card



Chances are, you no longer have much use for that stack of old cassette tapes, let alone the cases that hold them. But, did you know they are the perfect size for holding gift cards? The next time you need to wrap a gift card, try this clever tutorial from Mod Podge Rocks. With any luck, people won't even

This picture shows a typical website on upcycling, with no detailed instructions for students to see and understand.

2. Vintage Suitcase Into Chair



The picture above is another website that only explains what can be upcycled without giving any explanation or instructions. The items shown above are also not commonly found in Singapore too.

3. METHODOLOGY

3.1. Needs Analysis

A needs analysis was created to ascertain the relevance of this project. A survey was sent out, asking 64 participants about their knowledge of upcycling and how new resources would help them. The survey showed 71.9% of the respondents indicated that they had no idea what upcycling was (Fig. 1), while almost 60% of the people said that they do not upcycle at home (Fig. 2). These results indicate that many students fall under our target audience, which means our project can help a more significant number of students. This survey analysis would be used later to determine which resources took priority and should be focussed more.

3.2. Survey Results

On a scale of 1 to 5, how much do you know about upcycling

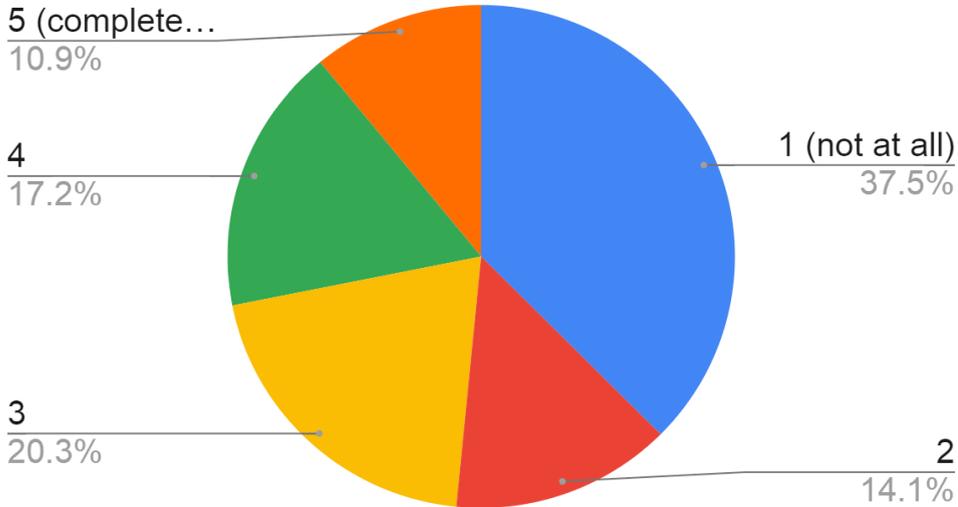


Fig.1

Do you carry out upcycling at home?

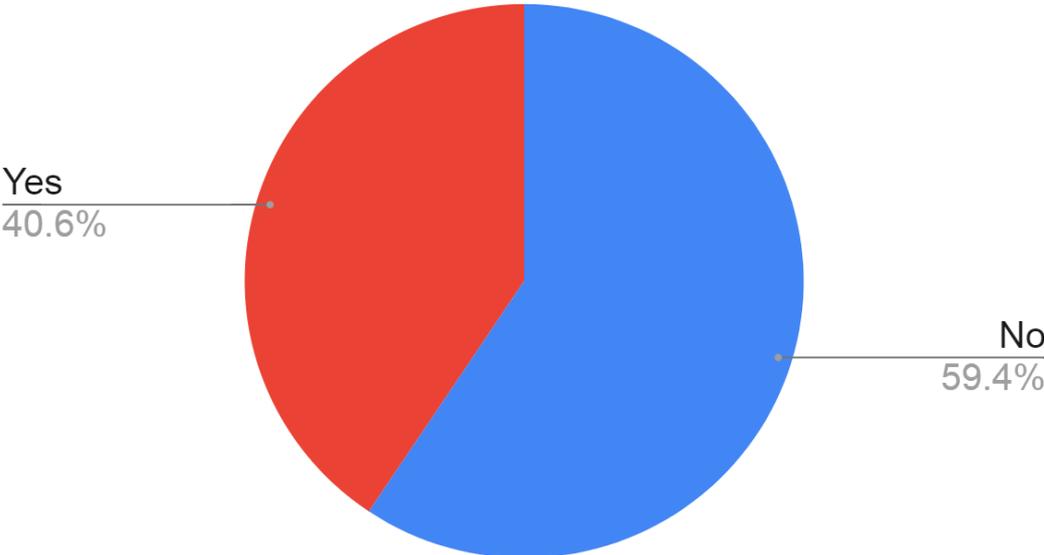


Fig. 2

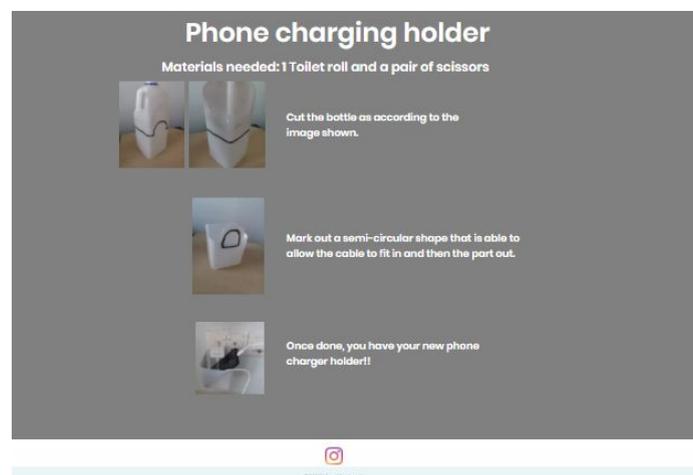
3.3. Development of Resources

A review was carried out to ascertain the needs of the students before a resource package was planned. Initially, there were plans to start a YouTube channel, but that idea was eliminated since spreading tutorials through iConvert's Instagram page, and website was sufficient enough at reaching out to the participants.

In the end, the resource package included a workshop, website and an Instagram page. The website included facts about upcycling, a FAQ section, detailed instructions on how to make items, and many more. As for the workshop and tutorial, participants were taught how to make items using cardboard as it was common among households. Lastly, the Instagram account was created into a platform where infographics we made were shared with our target audience.



Frequently asked questions section on the website.

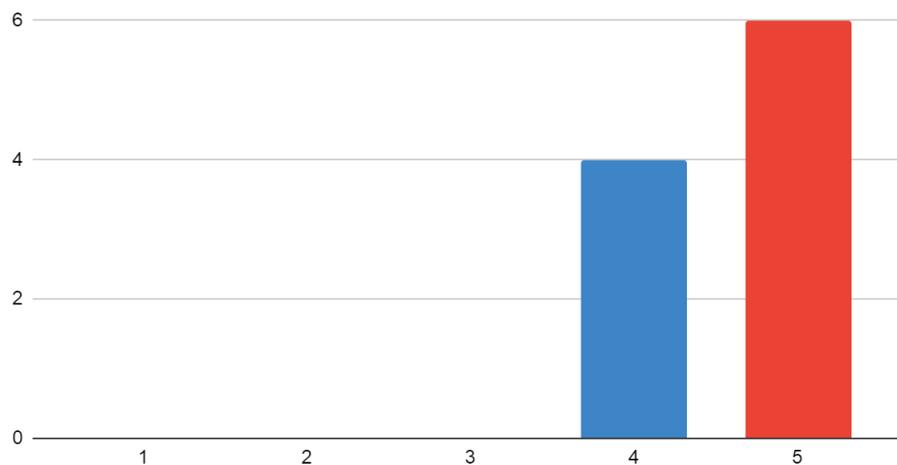


Instructions on how to make an item with pictures.

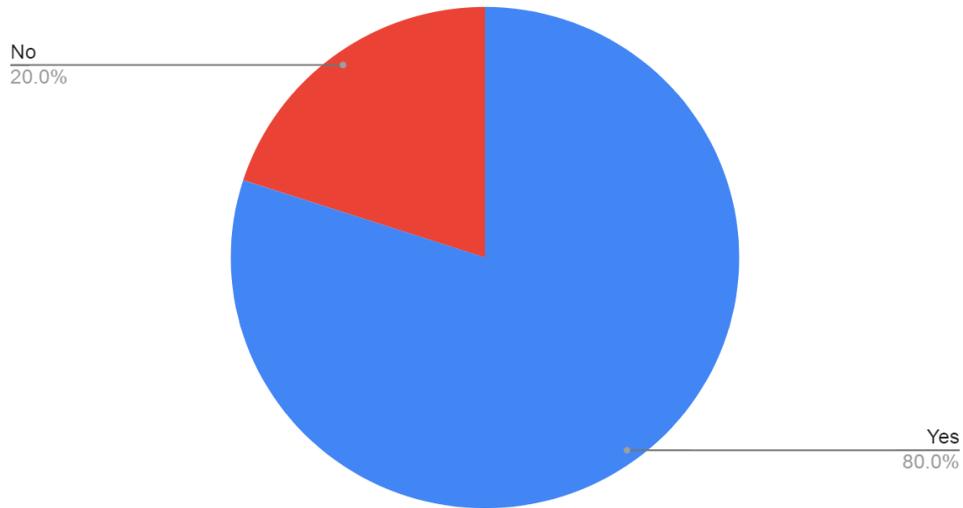
3.4. Pilot test

The first pilot test was administered to a small group of 16 Secondary Two students. Our group actively engaged the audience by first explaining about upcycling, followed by demonstrating how to make a phone stand out of cardboard, which we managed to get quite good responses from. Many of the participants' end-products were very similar to the demonstration, showing the attentiveness and interactivity. The first pilot test of the workshop went well, with almost all the participants stating that they enjoyed the workshop. 70% of the participants felt that the workshop was carried out very well. However, we felt there was room for improvement and did another pilot test with another group of 10 Secondary Two students, this time with better content, which was reflected in our 2nd post-workshop survey.

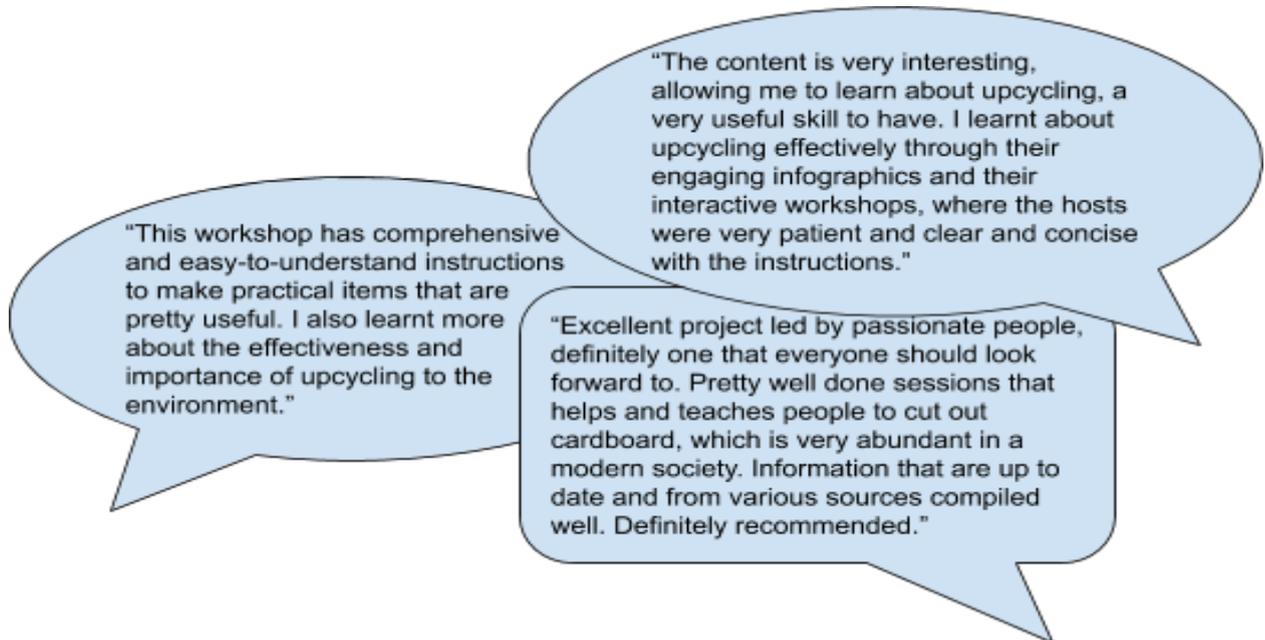
On a scale of 1 to 5, how much have you benefited from this workshop?



Would you carry out upcycling at home after the workshop?

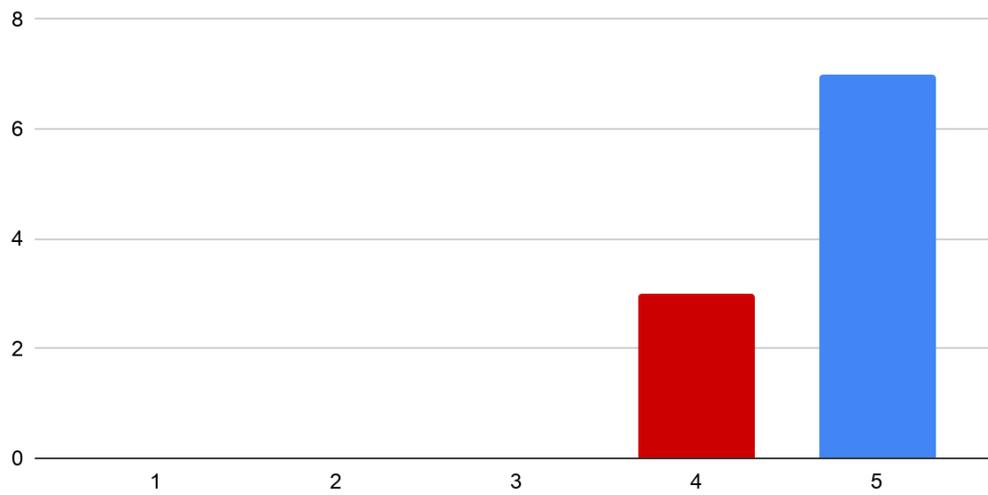


As shown above, everyone said that they benefited from our workshop and that 80% said that they would upcycle at home, a substantial increase from the previous survey (shown above) that stated that only 40% upcycled on their own.

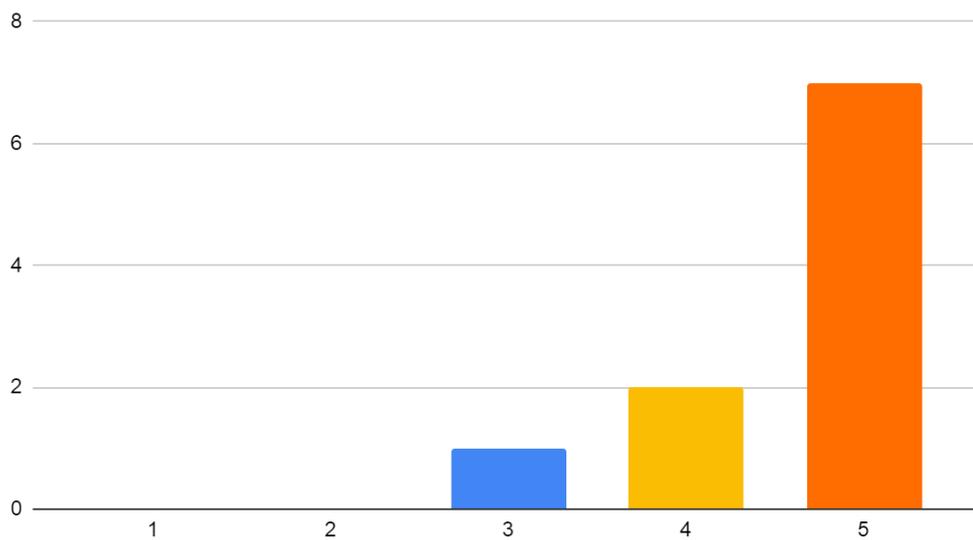


Feedback from participants

How well do you think the workshop was carried out? (1st Workshop)

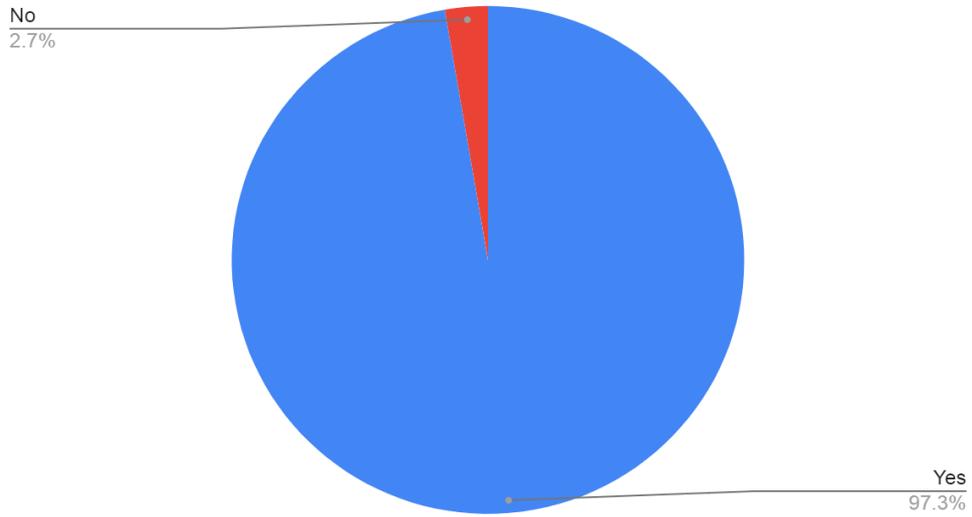


How much did you enjoy this workshop? (2nd Workshop)

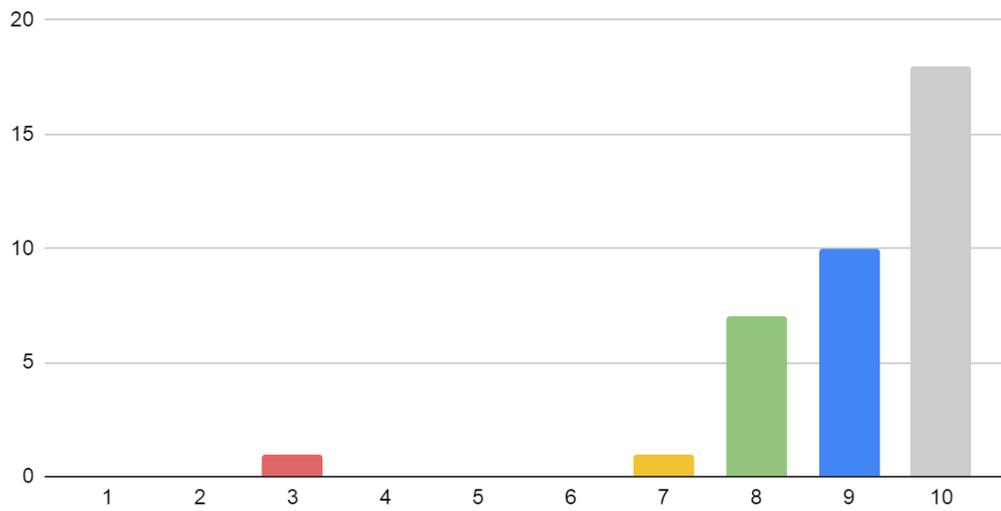


The completed website was later sent out to 37 Secondary Two students, and this was the students' feedback.

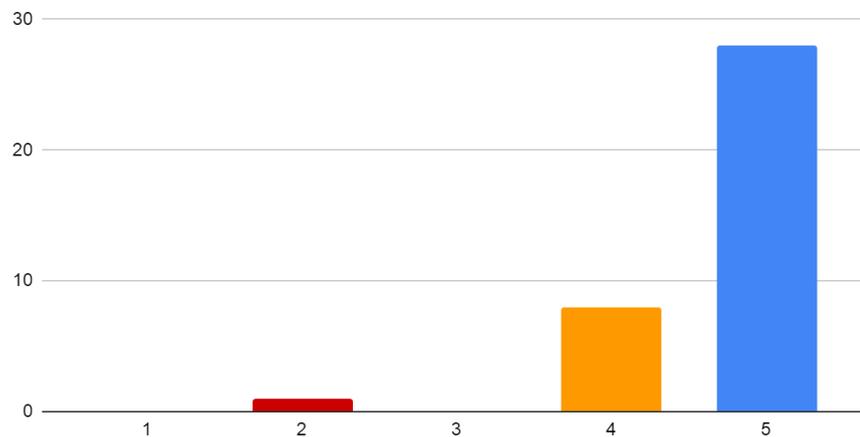
Lastly, are you satisfied with our resource package (website)?



Do you find this website interactive? (do you feel that the package is specially aimed towards helping you?)



From a scale of 1 to 5 (5 being the most), how well do you think this website can teach people about upcycling?



The website is very helpful (has a lot of facts) and important for us to learn more about upcycling and it covers everything. The DIY section has many interesting and creative ways of how to use cardboard and others. Can tell that a lot of time and effort is put in to give us step-by-step instructions which are easy to follow. Fun to look at!!!

Nice designs and very well researched informations.

It is a well structured and systematic website. The fact that you guys have made such a complete and elaborate resource package despite the coronavirus is indeed commendable. The resource package managed to teach me a lot and i am very satisfied. Thank you:)

It is very useful and informative. I learnt a lot about upcycling and how to upcycle. I felt that this website is specially designed with great effort to help us learn more about upcycling.

From the above responses, it can be said that many students felt that the website was well done and that they were able to benefit much from the website. The website can be found at <https://191455h.wixsite.com/iconvert>.

Lastly, the users on Instagram also shared the same sentiments, with 90% of them saying that they had benefited greatly.



A poll put up on Instagram.

4. OUTCOME & DISCUSSION

The worldwide pandemic, COVID-19, led to a two-month-long circuit breaker, with many measures that prevented any sort of face-to-face interactions such as interviews and workshops to be carried out. Workshops were the most significant part of this project. However, they now had to be modified. An online workshop was held to replace the physical workshop, although it was less convenient and interactive. Still, it was the best possible solution to be able to interact and communicate during the circuit breaker.

Although the first workshop went smoothly and the participants benefited, some stated that they would prefer for the workshop to be livelier. Hence, the second workshop included the use of the interactive online platform, "Kahoot!". The quiz would test the participant's knowledge of upcycling. By setting a reward for the winner, the participants began to participate more eagerly and enthusiastically.

Whereas for the Instagram page, some participants gave feedback that they did not have an Instagram account, thus being unable to see the infographics posted on it. Hence, a particular segment of our website was dedicated to posting the same

resources as on our Instagram to ensure that even if the students do not have Instagram, they can still view these resources.



Our Instagram Page on the website.

5. CONCLUSION

This project on upcycling was not an easy one as the Internet lacked resources that suited the target audience's needs. Thus creativity and innovation were crucial at the initial stage of the project to come up with ideas from scrap to adequately suit their needs. Due to COVID-19, plans that were initially laid out now had to be changed last minute. Compromising and adapting to changes was necessary during this period, and plans were modified to optimise whatever left and try to improve the situation. Even though these obstacles are inevitable, it is essential to make every effort to produce the best possible outcome. Time management was also vital throughout this project. With only three members, more work had to be done individually to make up for the manpower shortage. It required frequent meetings, spending about 3 hours each time to add on more resources and improve the project. But after a while, we managed to adapt our timetable and schedule such that we had enough time for work and rest, so even as the workload increased towards the final evaluation, we could adjust and manage our time efficiently. These are some vital skills learnt throughout this journey, but the most important one was how to work as a team. Only through this did this project manage to have such success and results.

6. REFERENCES

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