

Project Cultiv8

Group 4-076

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ABSTRACT

Project Cultiv8 is an online learning package targeted towards all Hwa Chong students to help them learn more about community and organic gardens/farms in Singapore and around the world. It consists of a number of write-ups, quizzes, and videos created by us specially for the viewing pleasure for Hwa Chong students. We decided to create the learning package on an online website as we foresaw the possibility of the Ministry of Education shifting classes temporarily to home-based learning due to the high transmission rates of the COVID-19 virus.

1. INTRODUCTION

1.1. Rationale

While there are sites that talk about organic and community gardens and farms, we found that they merely gave a brief overview of the topic and none actually went into good detail to explain this, and so we wanted to change that. We wanted students to develop an interest about Singapore's Community Gardens and organic farms. Personally, I felt that Singapore's farms did not get the recognition they deserved, which inspired me even more to do this project.

1.2. Objectives

Our aims were to raise awareness on Singapore's Community Gardens and organic farms, thus encouraging more students to visit said gardens and farms around the island, aiding in helping students of all ages lead an active and healthy lifestyle. The idea behind this is that visiting these community gardens and organic farms will encourage students to get out of their house more and by getting the chance to participate in farming,

that process in turn can help individuals to lead healthier lives. In a nutshell, by getting along peacefully with nature, our physical, mental and spiritual well-being improves, enabling us to lead an active and healthier lifestyle.

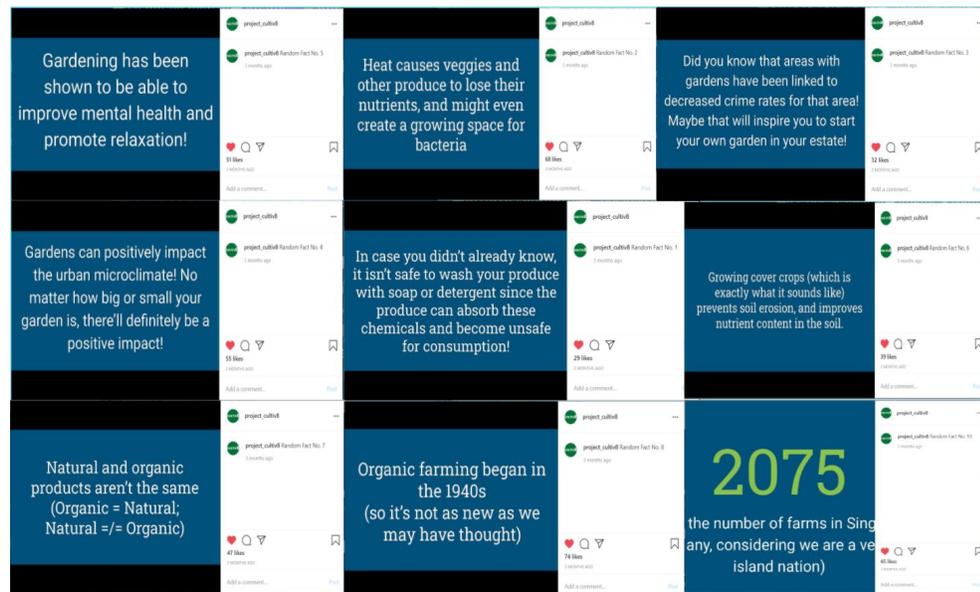
1.3. Target Audience

This resource package has always been catered towards Hwa Chong students of all ages.

1.4. The Resource

We created an online platform containing write-ups, quizzes and videos for community farms and gardens, and organic farms. We also created a special segment for farms in Singapore. Apart from this, an Instagram account to promote our learning resource package was also set up by us to reach a wider spectrum of Hwa Chong students. Unfortunately, our Instagram account was deleted due to Instagram receiving reports of possible security breaches.





Here are some pictures of our Instagram page and the posts before they got deleted.

2. REVIEW

Taking a look at platforms on the Internet, one can find a good number of sites containing information about community and organic gardens/farms.

However, these sites generally did not go in-depth about the topic, and none were specially catered for Singapore's context i.e. none talked specifically about farms here in our Garden City.

3. METHODOLOGY

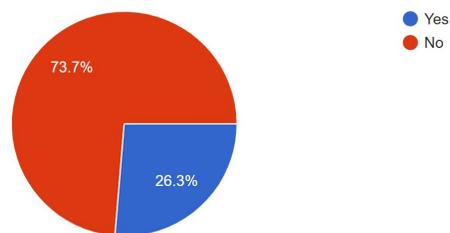
3.1. Needs Analysis

We conducted a needs analysis to ensure that our project fulfills requirements of our aims. As such, we conducted a survey on Hwa Chong Students about community gardens and organic farms to check their understanding and confirm if there is indeed a lack of awareness for these types of gardens in Singapore and, by extension, the necessity of our project.

3.2. Survey Results & Analysis

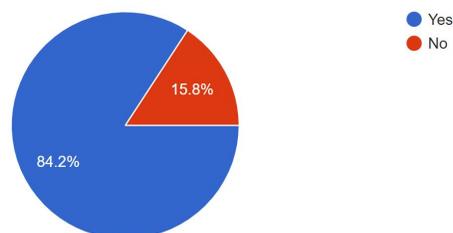
Do you know anything about Community Gardens?

19 responses



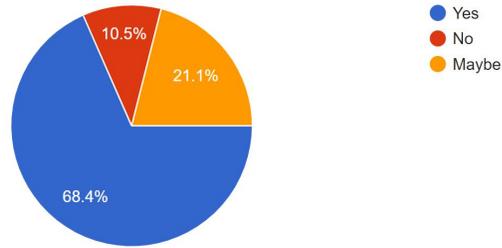
Do you enjoy visiting gardens/parks?

19 responses



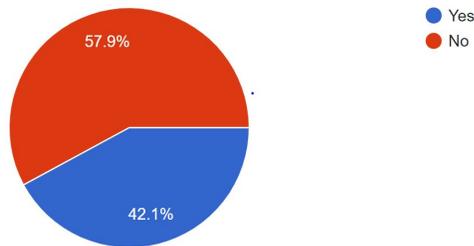
Would you be interested to visit and learn about Community Gardens?

19 responses



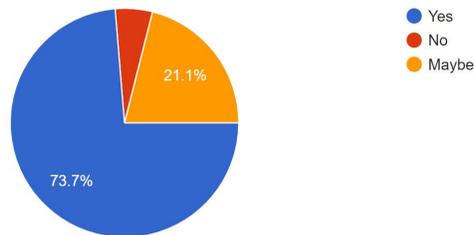
Have you ever visited an organic farm in Singapore?

19 responses

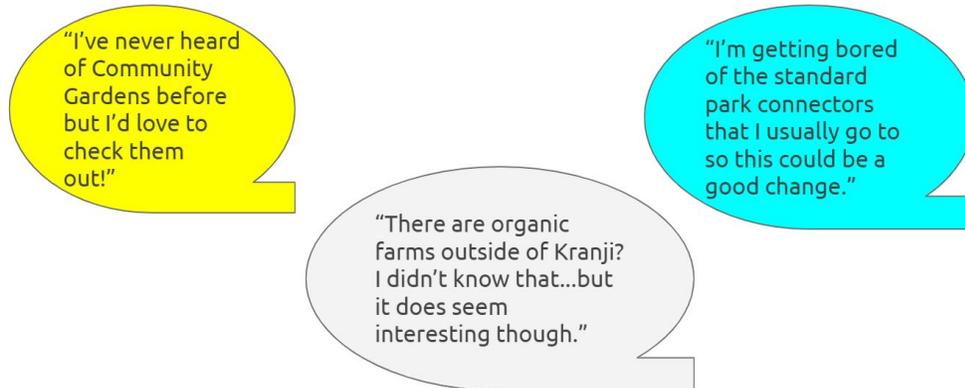


Would you want to visit and learn a little information about one here?

19 responses



From the survey responses (which we shortlisted and requested for specific students across all levels to fill up honestly), it was evident that most of the students did not know much about community gardens and organic farms (approximately 73.7%), but still enjoyed visiting gardens. A large majority of students (about 68%) also seemed to be interested in visiting these community gardens. Even though a good number of students had visited organic farms before, the majority still had not. However, roughly $\frac{3}{4}$ of students were interested to learn more about them.



A few students also commented on our questions, and the feedback gained on whether they would want to visit such gardens were mostly positive, with respondents stating that these new parks could be a good change.

3.3. Resource Construction

Research was done online for us to learn and understand the inner workings of community and organic gardens and farms. We began to create the learning package, taking time and effort to construct the long and detailed write-ups, whilst creating some quizzes and videos to make a more interactive and fun learning experience. After all this was done, we took a good amount of time to fact-check all the information and ensure that all our resources were accurate and up-to-date before releasing the online learning platform.

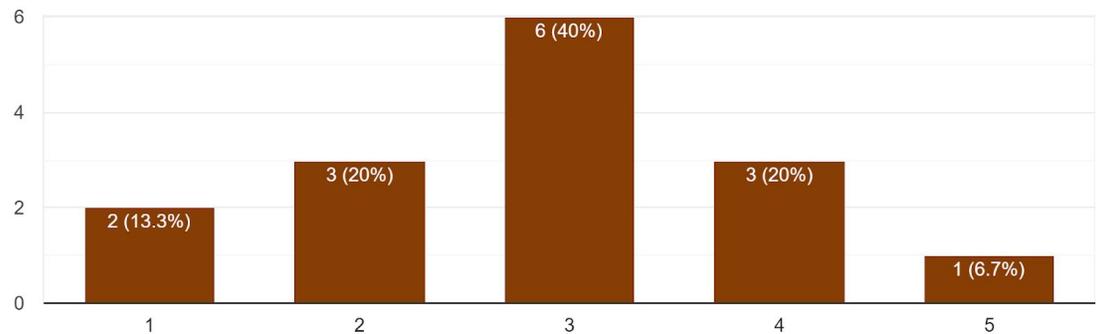
3.4. Pilot Test

We let 15 students from Hwa Chong view the package and fill up a form to assess the effectiveness of the package. We had them fill up the first half of the survey before viewing the learning package to judge their knowledge beforehand, before giving them time to use the platform. After they completed the learning resource, they were called back to finish up

the second half of the survey to judge their knowledge afterwards and assess the effectiveness of our package. These students were once again carefully handpicked to ensure that they spanned across all the levels.

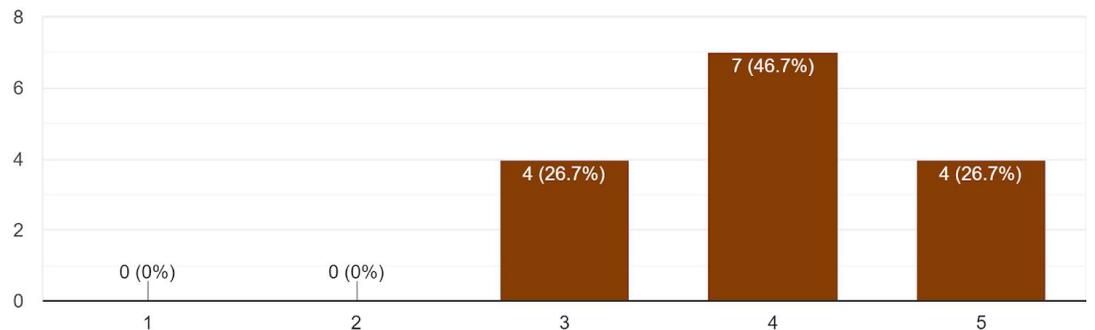
On a scale of 1 to 5, how much do you appreciate nature?

15 responses



After experiencing firsthand our learning package, how much do you appreciate nature now?

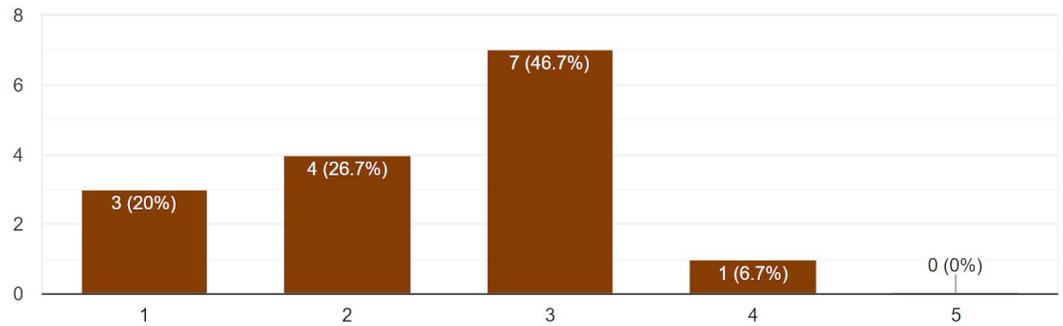
15 responses



These are the before and after pictures. We can see that before viewing the package, the median score on whether the respondents appreciated nature was around 3, but that has since changed to be 4 after viewing the resource package. This shows that there had been a definite shift in mindsets towards nature after viewing our package.

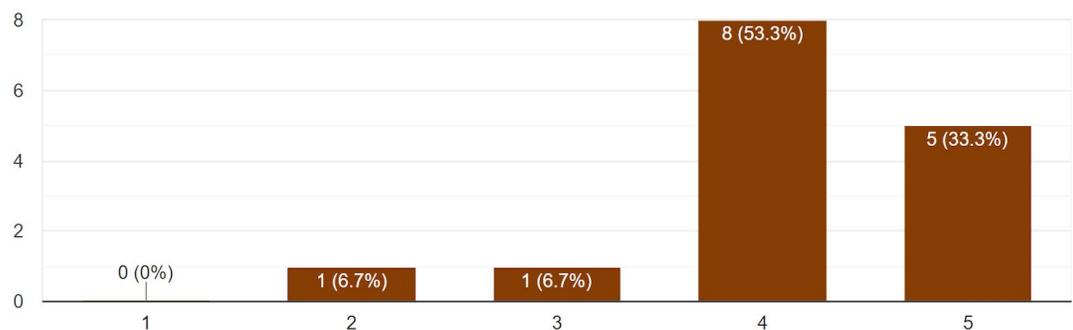
On a scale of 1 to 5, how much did you know about community gardens and organic farms in Singapore before?

15 responses



On a scale of 1 to 5, how much do you know about community gardens and organic farms in Singapore now?

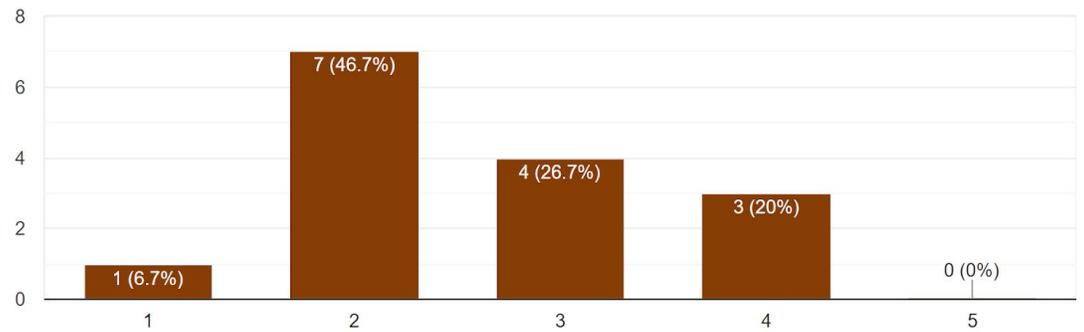
15 responses



Before viewing the package, most respondents gave a score of 2-3 based on their knowledge of community gardens and organic farms. But, the large majority picked 4-5 after viewing the package, showing a significant change in their understanding of the topic. At first, about 93% of people were not too sure about what the topic was about but after viewing our package, 86% of them gained a better insight of what we are talking about.

On a scale of 1 to 5, how important is nature education to you?

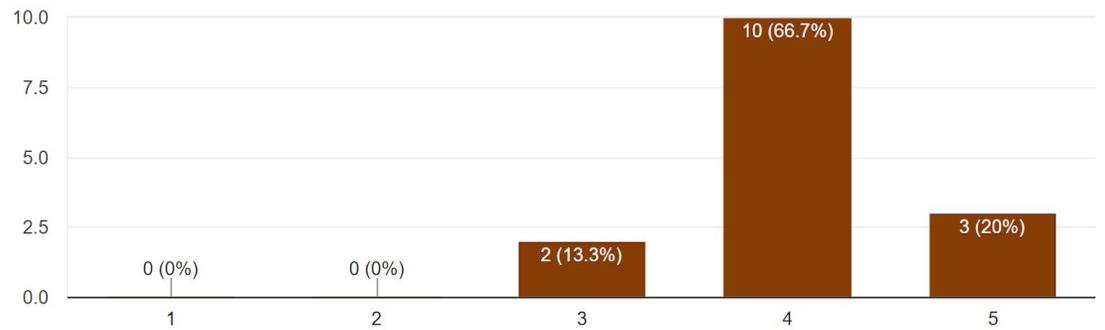
15 responses



Do you feel that nature education is important now?



15 responses

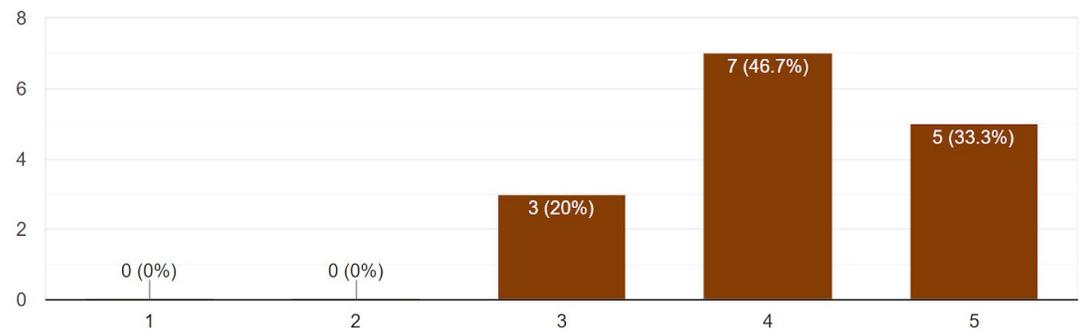


Before, most hovered around the 2-3 point range on whether nature education was important to them. That changed significantly, as most now are in the 4 point range, an increase of around 1-2 points.

On a scale of 1 to 5, how important is leading a healthy lifestyle?

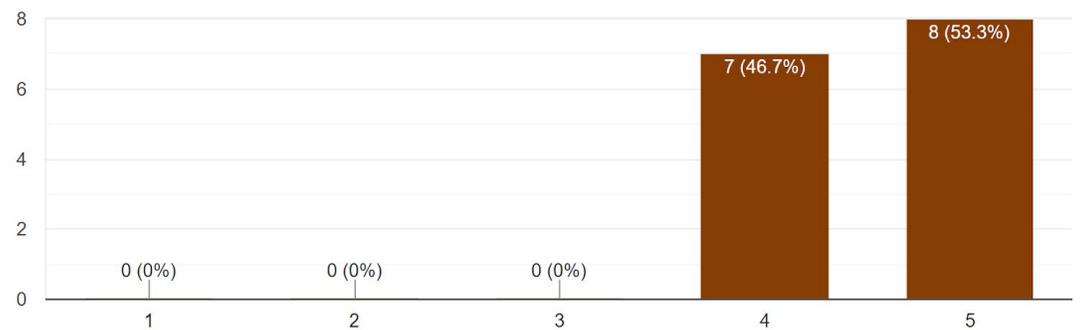


15 responses



How far do you now think that leading an active lifestyle is vital?

15 responses



While everybody had already agreed to some extent in the beginning that leading a healthy lifestyle is important, you can definitely see a change in the median value. Before viewing our project, the median stood at 4 points but after viewing our package, the median is now at 5 points.

4. OUTCOME & DISCUSSION

4.1. Final Outcome

Since the resource package had received positive feedback from users, we decided to continue to develop it to improve it in any way we could. We added more videos on the topics mentioned above. We also made some edits to the write-ups, including a little more information such as steps to

creating one's own organic garden from scratch. Judging by the survey responses, we can safely say that we have achieved our aims.

4.2. *Limitations & Further Improvements*

COVID-19 has been a great obstacle towards everyone's lives, and has definitely posed a challenge towards our project. We had at first wanted to head to farms or gardens in Singapore and interview the owners there but the Circuit Breaker and Safe Distancing Measures made this impossible. So, we wanted to arrange for an online meeting with the aforementioned owners, but could not find anyone willing to hold a meeting with us. If we could do this project again, this would be an area for improvement.

Another aspect would be to expand the learning package to cover more exotic types of farming, such as vertical farms or hydroponics. Right now, the package is limited to community gardens and organic farms, so it would be great if we could add more types of farms to the mix.

We also realise that all our packages are online and there are no offline resources. This is yet another limitation that we could improve by holding live talks with the Hwa Chong students and creating more offline resources like pamphlets etc.

5. *CONCLUSION*

I think it is an understatement to say that COVID-19 has made everyone's project work difficult to complete. The inability to meet up with the other group members for a good part of the year combined with possible stress or cabin fever brought about by the Circuit Breaker has created a truly terrible combination, one that is certainly detrimental towards the progress of the project work. However, we prevailed through the challenges and spent a lot of time online working together to craft the learning package from scratch. From the project, besides acquiring more knowledge on certain topics, we had learnt to be more patient and

understanding towards others. We had also understood that not everything will be smooth sailing, and we had to persevere and overcome the difficulties faced. All in all, we were able to become more task-oriented and were able to manage our time well to complete the project.

6. REFERENCES

Howard, B. C. (2018, June 1).

How to Start an Organic Garden in 9 Easy Steps. Good Housekeeping.

Retrieved from:

<https://www.goodhousekeeping.com/home/gardening/advice/g2104/organic-gardening-tips-460309/>

Koh, R. (2019, November 29).

The Urban Farmer: M'sian Teaching How To DIY An Organic Urban Farm. Vulcan Post.

Retrieved from:

<https://www.google.com.sg/amp/s/vulcanpost.com/682570/the-urban-farmer-diy-organic-home-farming-classes-malaysia/amp/>

Wikipedia contributors. (2020, July 26). *Community gardening*. Wikipedia.

Retrieved from: https://en.m.wikipedia.org/wiki/Community_gardening

Wikipedia contributors. (2020b, August 15). *Organic farming*. Wikipedia.

Retrieved from: https://en.m.wikipedia.org/wiki/Organic_farming

The unsustainability of organic farming. (2020, August 16). TODAYonline.

Retrieved from:

<https://www.todayonline.com/commentary/unsustainability-organic-farming>

How To Make Compost At Home (WITH FULL UPDATES). (2019, June 3).
[Video]. YouTube.

Retrieved from: <https://m.youtube.com/watch?v=mDIVpJgjoXQ>

Kin Yan Agrotech Pte Ltd. (n.d.).

Organic Farm Tour with DIY Wheatgrass Activity. Kin Yan.

Retrieved from:

<https://www.kinyan.sg/organic-farm-tour-with-diy-wheatgrass-activity/>

8 Things You Need to Know when Starting an Organic Farm. (n.d.). AGREA.

Retrieved from:

<http://www.agreaph.com/8-things-to-know-when-starting-an-organic-farm>

Quan Fa Organic Farm - Specialty Singapore Organic Grocery Store. (n.d.).

Quanfa Organic Farm.

Retrieved from: <https://quanfaorganic.com.sg>