

天主教輔仁大學英國語文學系學士班畢業成果  
ENGLISH DEPARTMENT, FU JEN CATHOLIC UNIVERSITY  
GRADUATION PROJECT 2020

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真善美聖

**Plastic Straw**

SANCTITAS BONITAS

PULCHRITUDO

VERITAS

學生：李信誠撰

Allen, Sin-Cheng Li

## **Technology Assisted Instruction and Presentation**

**Project Title: Plastic Straw**

**Li Sin Cheng (Allen Li)**

**405110600**

**2019/6/24**

Google Site Links ----

1. Group Site Homepage:

<https://sites.google.com/view/plasticstraw/home?authuser=0>

2. My self-created subpages:

<https://sites.google.com/view/plasticstraw/our-solution-2-a-straw-containing-flavoring?authuser=0>

<https://sites.google.com/view/plasticstraw/our-solution-2-a-straw-containing-flavoring/the-concept-of-this-straw?authuser=0>



<https://sites.google.com/view/plasticstraw/our-solution-2-a-straw-containing-flavoring/how-does-it-work?authuser=0>

<https://sites.google.com/view/plasticstraw/our-solution-2-a-straw-containing-flavoring/some-limitations?authuser=0>

<https://sites.google.com/view/plasticstraw/our-solution-2-a-straw-containing-flavoring/decomposable-tableware-to-use-or-not-to-use?authuser=0>

Project Oral Presentation Link --- <https://youtu.be/w9ljWL41iuk>



## **Table of Contents**

<b>I. Introduction</b>	<b>Page 4</b>
<b>II. Project Content Explanations:</b>	
<b>A. Group Focus</b>	<b>Page 5</b>
<b>B. My Main Focus</b>	<b>Page 9</b>
<b>C. Self-Evaluation of the Group Project</b>	<b>Page 16</b>
<b>III. Apps and Software Adopted in the Group Project</b>	
	<b>Page 17</b>
<b>IV. When I First learned the Apps/Software/Platform....</b>	
<b>Week 4: Xmind</b>	<b>Page 20</b>
<b>Week 10: Evercam &amp; Google Site Tutorial</b>	<b>Page 22</b>
<b>Week 11: Google Site Tutorial</b>	<b>Page 25</b>
<b>Week 12: Audacity &amp; Wix</b>	<b>Page 29</b>
<b>Week 13: Powtoon &amp; Cospace</b>	<b>Page 32</b>
<b>V. Conclusion: Reflections and Thoughts for Creating This Project...</b>	<b>Page 34</b>
<b>VI. References .....</b>	<b>Page 35</b>

Plastic Straw  
Allen Li  
405110600

## Plastic Straw

### I. Introduction of Group Project

#### A. Motivation and Background Information

Government departments, public and private schools, department stores, shopping centers, fast food chains and other 8,000 businesses are not allowed to use disposable plastic straws after July 1, 2019. This regulation draws our group's attention. Facing this new policy, some people support it, but others think it will be inconvenient. After deeply understanding this issue, our group decide to share the information about plastic straws to the public, and we also have several purposes in our project.

1. Through our project, we want to raise public awareness of how plastic straws can cause damage to our planet.
2. Through our project, we'd like to share what other countries and Taiwan have planned or done.
3. Through our project, we'd like to share some unique alternatives to plastic straw, including the one came up with by us.

## B. Short Introduction

“Of the 9 billion tons of plastic we make every year, only 9 percent is recycled.

About 13 million tons of plastic waste goes into the ocean every year.”

Gruesome images of whales or sea turtles stuffed with plastic waste are

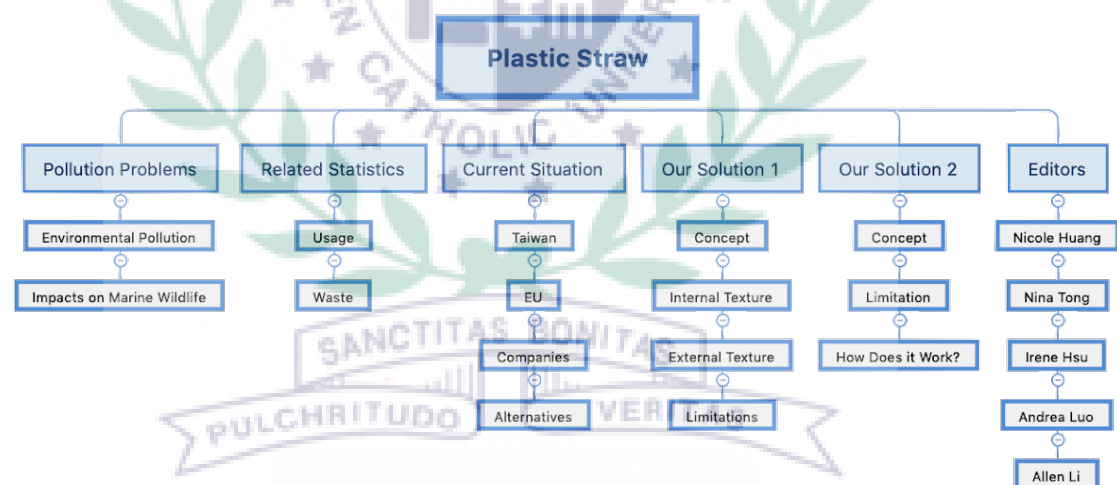
becoming more common. It is time for people to understand the negative impacts

of plastic straws and to dispel concerns about environmental straws.

## II. Project Content Explanations

### A. Minor Focus:

Group Project Framework:



The issue of plastic straws is getting more and more popular. When we decided

on this topic as the subject of our project, we thought together about what

important information we could bring to our readers from this project or what we

could inspire them. At the beginning, we intended to let readers understand the

harm caused by plastic straws, including its environmental damage. At the same

time, we also provided research data to support our arguments. We then went on to introduce a series of solutions that were being proposed today. Finally, we came up with two creative alternatives for people to adopt.

Fig. 1



In this section, we introduce some plastic straw pollution problems, including environmental pollution and the impact on marine creatures.

Fig. 2



In this section, we provide related statistics to show our usage and waste of plastic straws.

Fig. 3

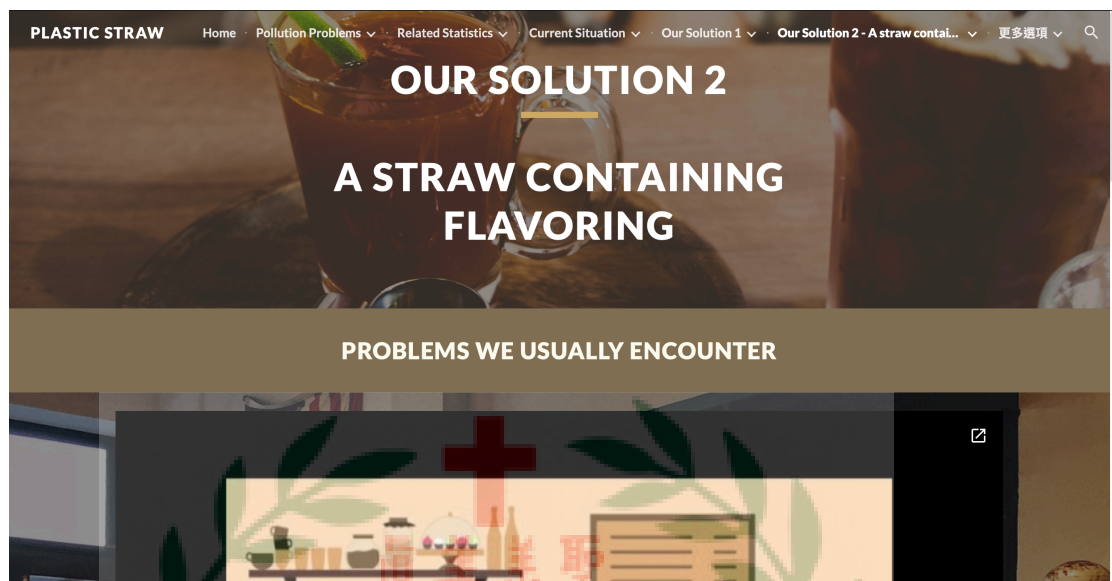


In this section, we introduce current regulations about plastic straws and some current alternatives of plastic straws.

Fig. 4



Fig. 5



In these two sections, we provide two unique straws that may replace plastic straws. The first one is a sugar cane straw and the second one is a straw containing flavoring.



## B. My Focus

Table 1. List of Links to My Google Site Production of the Apps/Software

Adopted

Apps/Software	Xmind
Google Site	<a href="https://sites.google.com/view/plasticstraw/our-solution-2-a-straw-containing-flavoring/some-limitations?authuser=0">https://sites.google.com/view/plasticstraw/our-solution-2-a-straw-containing-flavoring/some-limitations?authuser=0</a>
Apps/Software	Powtoon/iMovie/QuickTime Player/Audacity
Google Site	<a href="https://sites.google.com/view/plasticstraw/our-solution-2-a-straw-containing-flavoring/how-does-it-work?authuser=0">https://sites.google.com/view/plasticstraw/our-solution-2-a-straw-containing-flavoring/how-does-it-work?authuser=0</a> <a href="https://sites.google.com/view/plasticstraw/our-solution-2-a-straw-containing-flavoring?authuser=0">https://sites.google.com/view/plasticstraw/our-solution-2-a-straw-containing-flavoring?authuser=0</a>

Fig. 6 : The Homepage of Solution 2

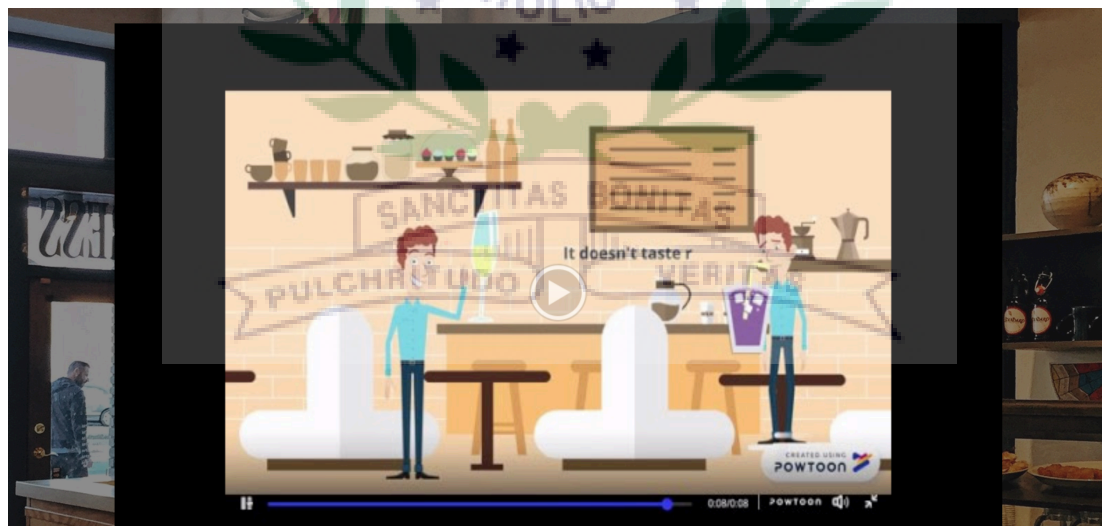
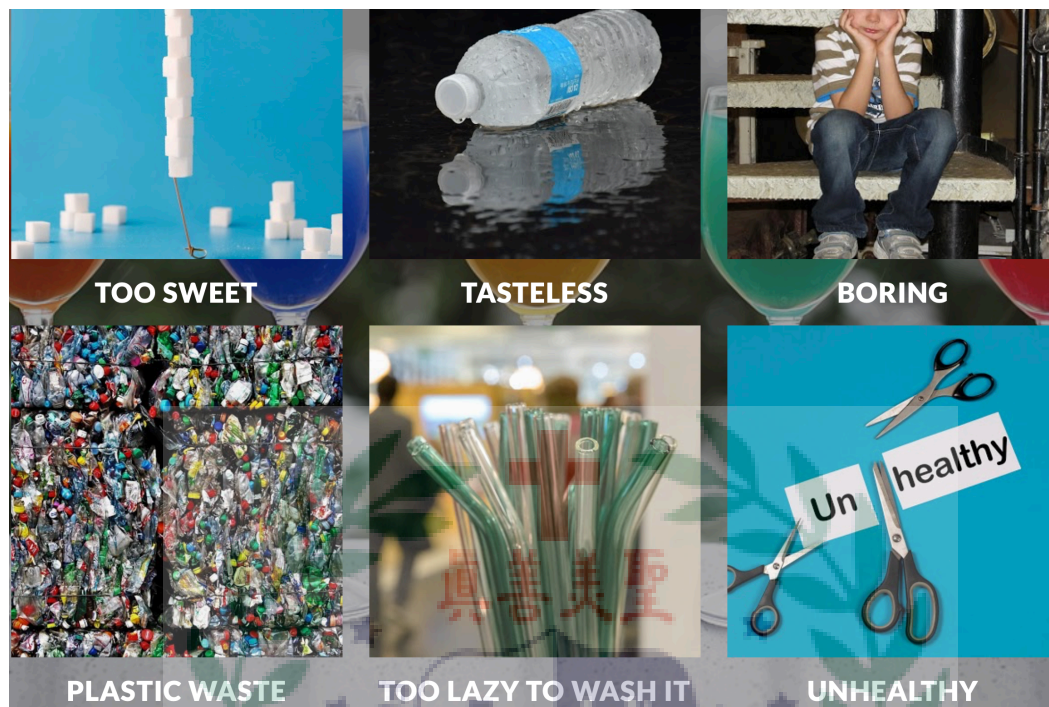




Fig. 7 : The Homepage of Solution 2



I use Powtoon animation and several pictures to describe some situations that people may encounter when they use plastic straws to have a drink.

Fig. 8 : The Homepage of Solution 2



This part briefly shows the advantages of the new-designed straw.

Fig. 9 : The Concept of This Straw

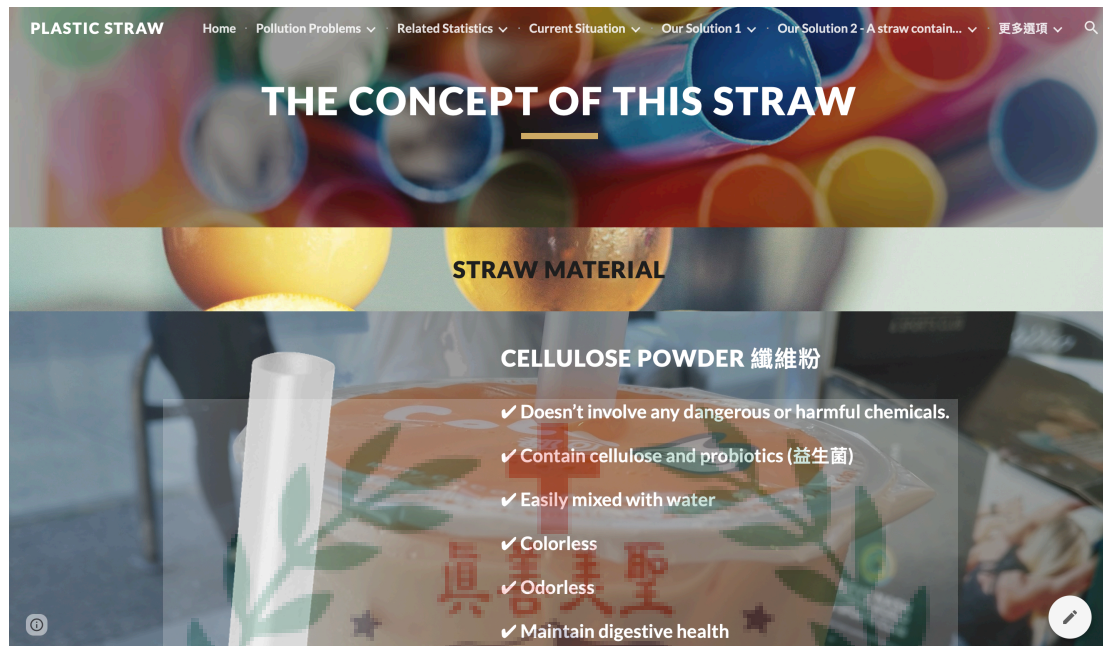
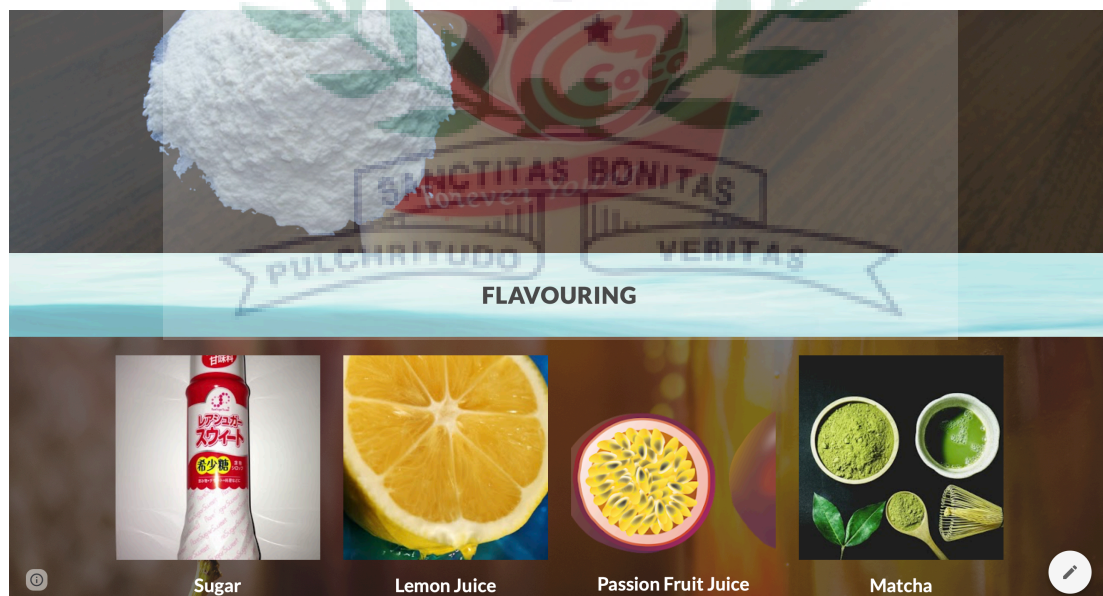
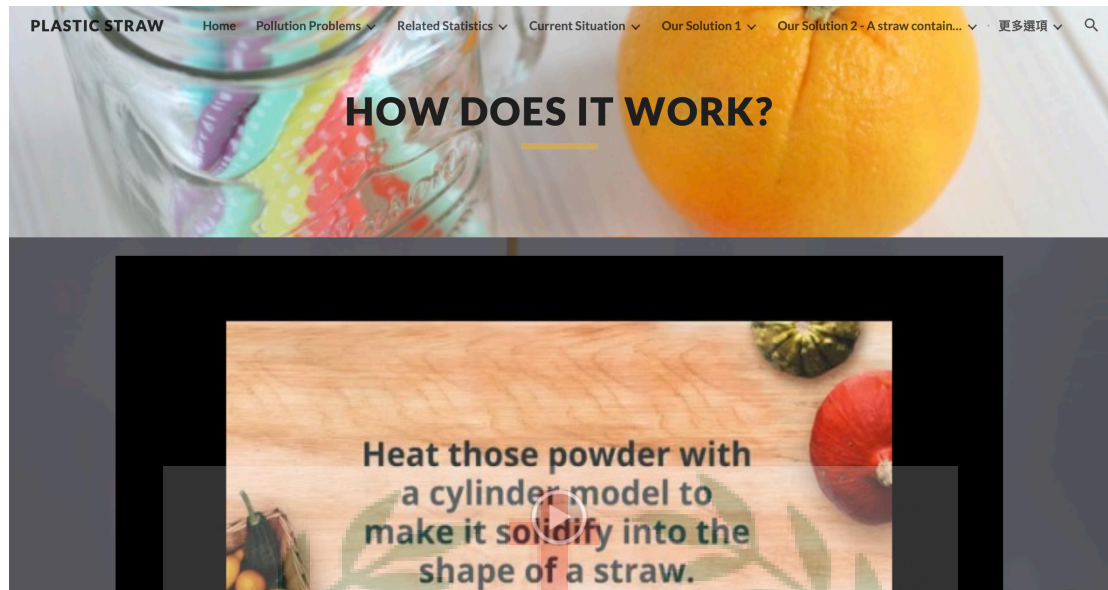


Fig. 10 : The Concept of This Straw



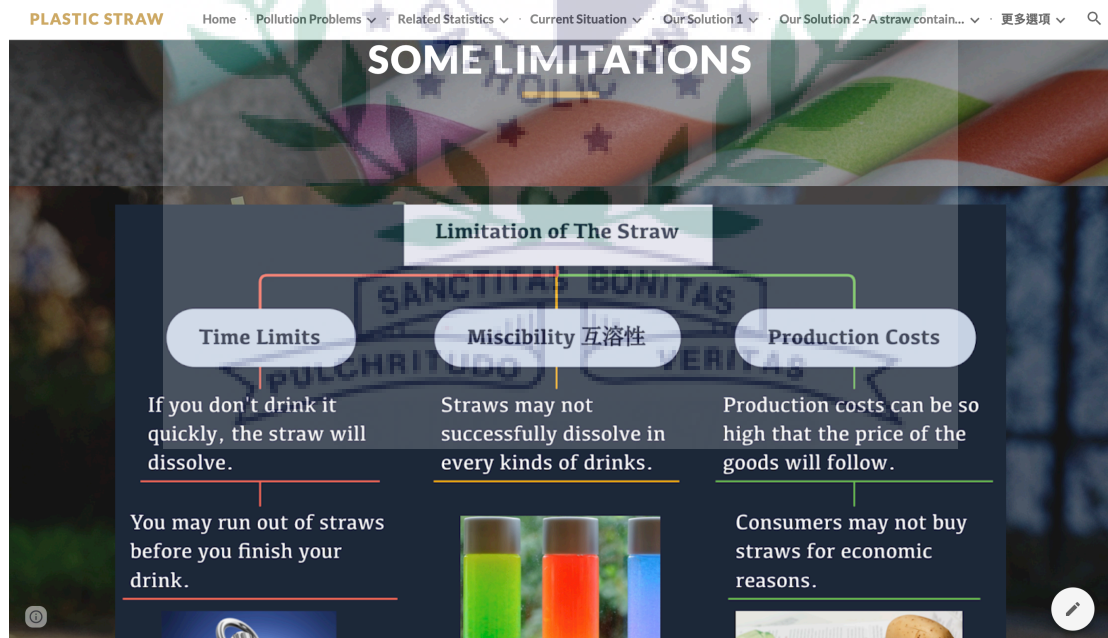
This page introduces the concept of this new-designed straw, including its special ingredient and flavouring.

Fig. 10 : How does it work?



Subsequently, I once again use Powtoon animation to explain how to make this special straw.

Fig. 11 : Some Limitations



However, this type of straw still has some limitations. I then use X-mind to present possible concerns of using “the straw containing flavouring.”

Fig. 12 : Compare and Contrast of Different Straws



COMPARE AND CONTRAST OF DIFFERENT TYPES OF STRAWS		
Material	Advantage	Disadvantage
Stainless Steel	<ul style="list-style-type: none"> <li>Resistant to fall and oxidation.</li> </ul>	<ul style="list-style-type: none"> <li>Avoid acidic drinks such as lemonade.</li> <li>Using a steel brush or scouring pads to clean it may cause scratches and bacteria breeding.</li> </ul>
Glass	<ul style="list-style-type: none"> <li>Resistant to high temperature and acid corrosion.</li> </ul>	<ul style="list-style-type: none"> <li>Fragile.</li> </ul>
Bamboo	<ul style="list-style-type: none"> <li>The burden on the environment is relatively small.</li> <li>It can be decomposed directly in the natural environment.</li> </ul>	<ul style="list-style-type: none"> <li>If not completely dry after cleaning, it will be moldy.</li> </ul>
Silica gel	<ul style="list-style-type: none"> <li>It is the only material that can be bent and stored.</li> <li>Easy to carry.</li> <li>There won't be any broken pieces.</li> <li>It won't scratch your tongue.</li> <li>Resistance to acid and alkali.</li> </ul>	<ul style="list-style-type: none"> <li>Easy to adsorb dander, need to wash before use.</li> <li>Easy to absorb the taste and the pigment in the drink.</li> <li>It also yellows easily when used for a long time.</li> </ul>
Paper	<ul style="list-style-type: none"> <li>It creates a lighter environmental burden than plastic straws.</li> </ul>	<ul style="list-style-type: none"> <li>Unreusable.</li> <li>After being thrown away, it is still a piece of garbage.</li> </ul>
Sugar cane	<ul style="list-style-type: none"> <li>Reusable.</li> <li>It decomposes within six to eight months of being buried in the soil, with a slight carbon footprint</li> </ul>	<ul style="list-style-type: none"> <li>The heat resistance is only between 50 and 60 degrees.</li> <li>Not suitable for drinking hot drinks and edible fats.</li> <li>The taste of drinks may be</li> </ul>

I also use Pages to create a table to show the advantages or disadvantages of different types of straw.

Fig. 13 : Decomposable Tableware

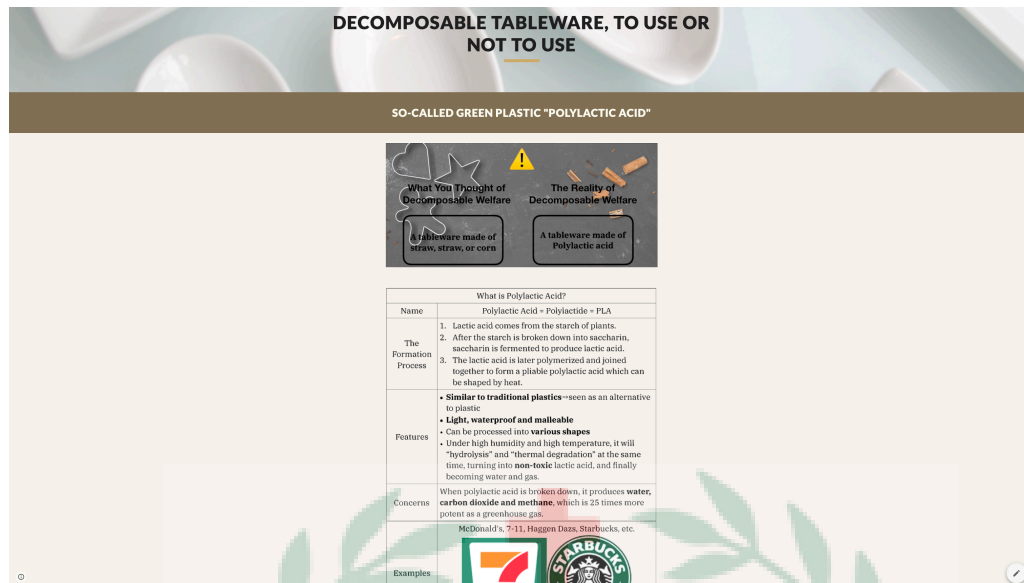


Fig. 14 : Decomposable Tableware

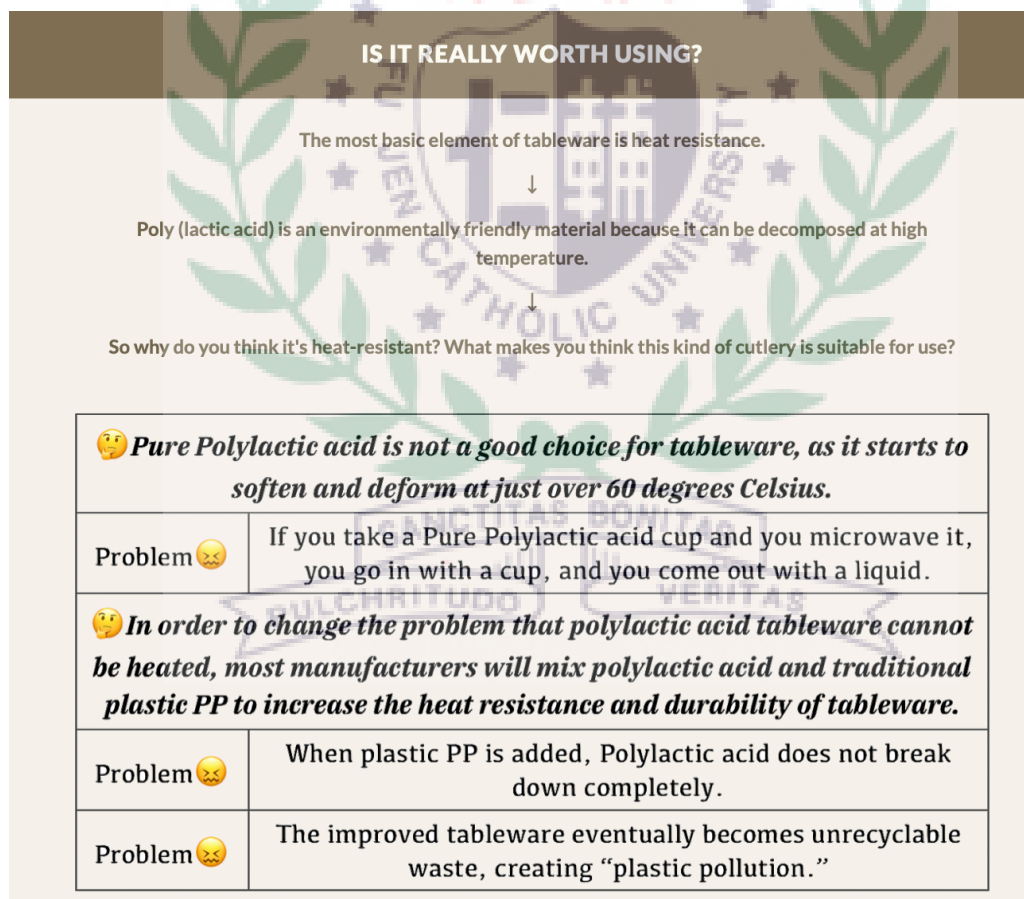


Fig. 15 : Decomposable Tableware

**FORTUNATELY, IN RECENT YEARS, THERE HAVE BEEN "HEAT-RESISTANT AND NATURAL" POLYLACTIC ACID.**

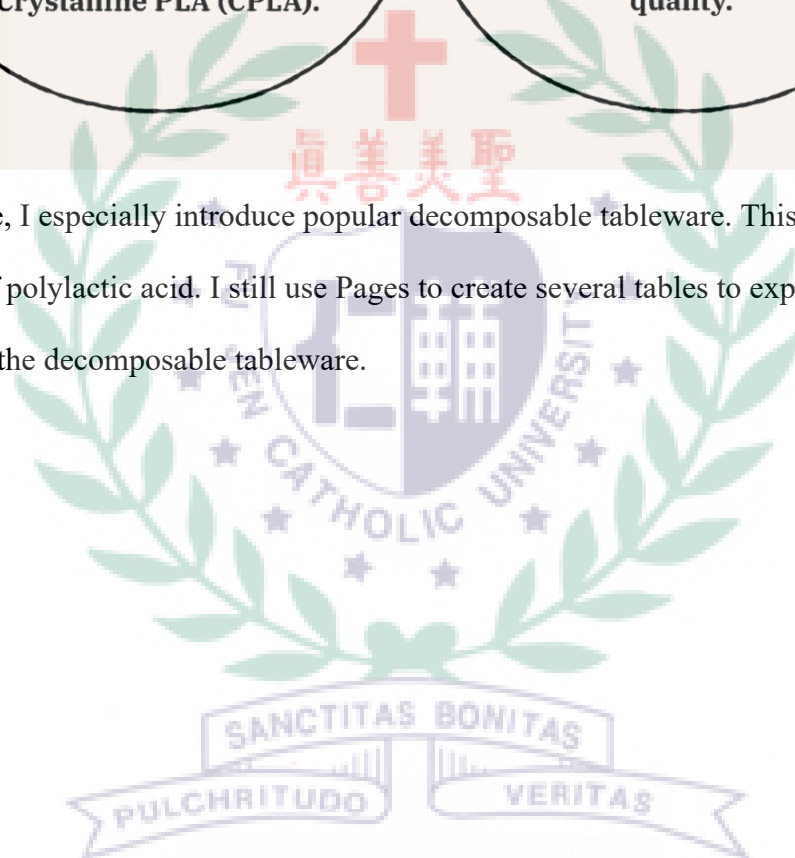
**Solution 1**

**Improve the crystallinity of polylactic acid so as to increase its melting point, becoming another material known as Crystalline PLA (CPLA).**

**Solution 2**

**Look for other additives to replace the traditional plastic PP used to improve the quality.**

In this page, I especially introduce popular decomposable tableware. This tableware is made up of polylactic acid. I still use Pages to create several tables to explain the concept of the decomposable tableware.



**C. Self-Evaluation of the Group Project**

In our group project, the part I contributed the most was providing advice on solutions.

At first, we couldn't think of an alternative to plastic straws. Thankfully, one of our group members mentioned Starbuck's edible straw, which inspired me to come up with the new-designed straw that contain flavouring. That is also why I am in charge of edit and build the solution page in our Google site. One obstacle I encountered was that I would worry that my own finished product would not be able to faithfully convey the concept I wanted to convey, because I was not really good at using Powtoon. However, I still tried my best to finish it. Basically, I thought our group cooperated successfully. All of us finished our own part on time.



### III. Apps and Software Adopted in the Group Project

1. **Powtoon** (<https://www.powtoon.com/home/>?)
2. **Audacity** (<https://sourceforge.net/projects/audacity/>)
3. **QuickTime Player**

([https://support.apple.com/zh\\_TW/downloads/quicktime](https://support.apple.com/zh_TW/downloads/quicktime))

4. **iMovie**

(<https://apps.apple.com/tw/app/imovie/id408981434?l=zh&ls=1&mt=12&v0=www-tw-mac-imovie-app-imovie>)

- **PowToon** is a combination of animation and graphics and is made in a similar way to Power Point. As a result, you can easily add text, images, characters, props, shapes, and backgrounds, transition effects, and other content from the template, and create animated movies based on special effects settings. PowToon also offers free access to music without copyright infringement.
- **Audacity** is a free and powerful audio editing software. It can be used to clip music, merge music, record music remove voice, remove noise, etc.
- **QuickTime Player** can be used to play, record, and edit videos. QuickTime Player also has on-screen recording function.



- **iMovie** is used to edit and produce films, create trailers and 4K movies.

iMovie is popular for the simplicity of its interface, most of which requires a simple click and drag.

- In my project, I have to explain the process of making a straw. Instead of using monotonous words, I think images or videos are more effective.

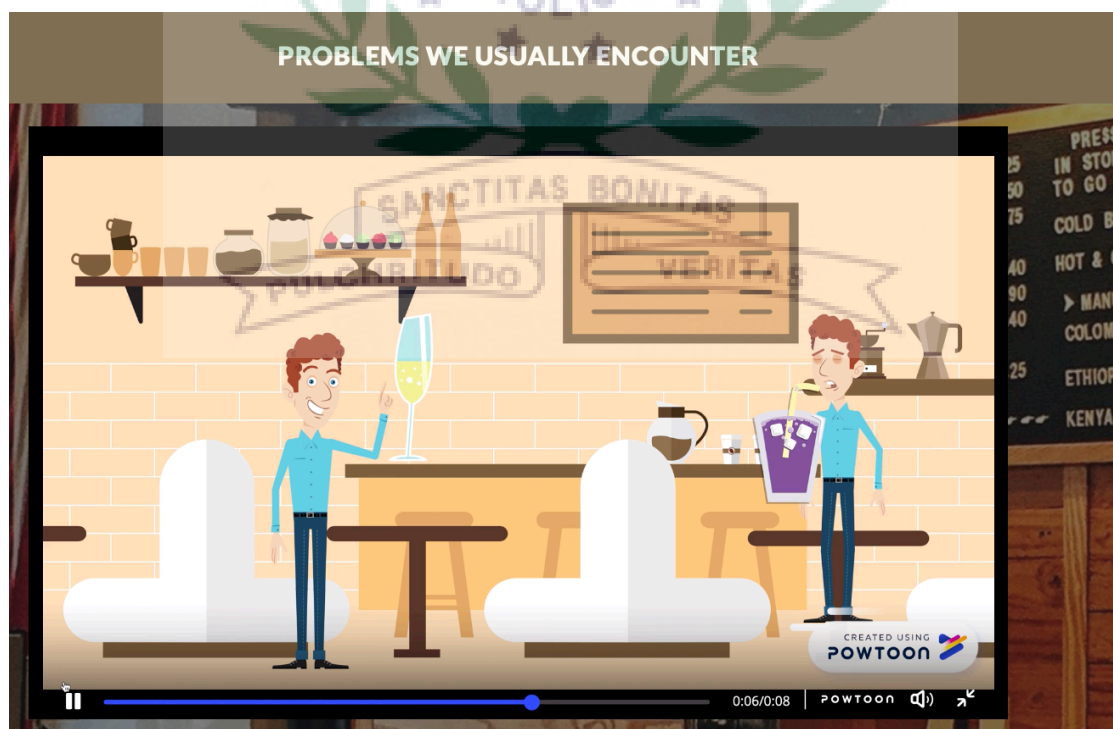
That's why I choose Powtoon to help me convey my ideas. The Powtoon video not only presents my thoughts in a creative way but also catches audiences' attention during our presentation.

- One difficulty I encountered was that Powtoon free account was not allowed to download the video. So I used QuickTime Player from Mac to help me record the video. However, the sound in the recorded video version contained some noises. Therefore, I moreover used Audacity to remove ambient noise and use iMovie to add audio files to the original video. Finally, I uploaded the video to Google Drive so that I could insert the video into my Google Site successfully.

Fig. 16 : Powtoon Production



Fig. 17 : Powtoon Production



#### IV. When I First learned the Apps/Software/Platform

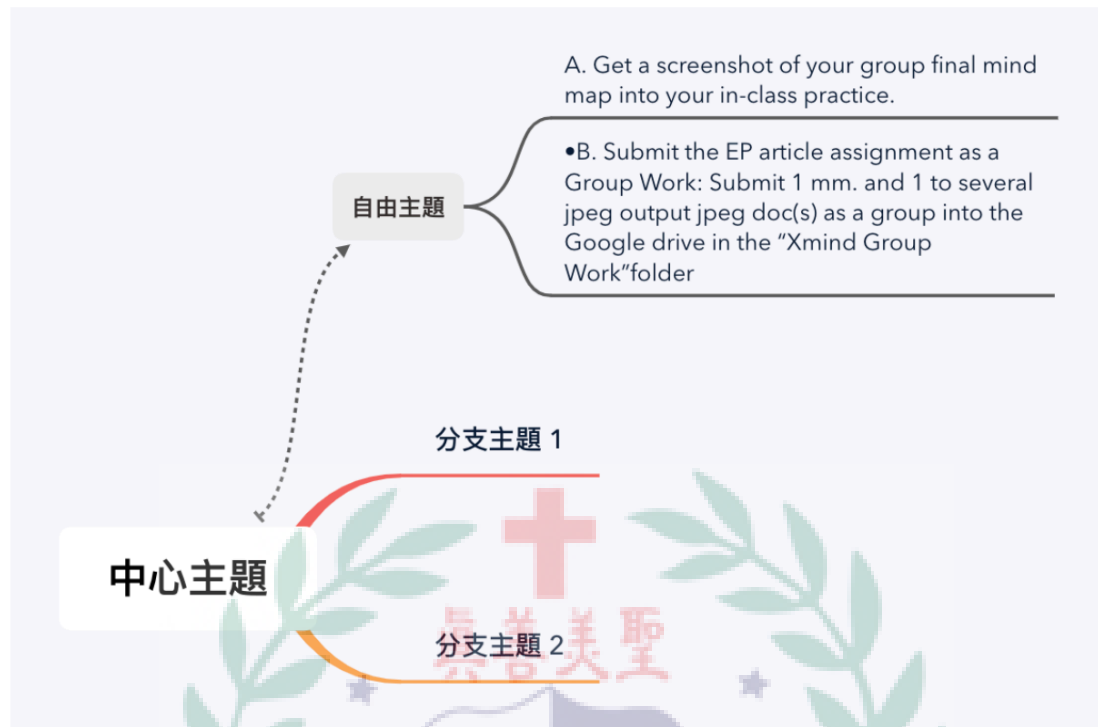
##### Week 4: Xmind

This week, we learned a new piece of software-Xmind. Its main purpose is to help users capture ideas and organize various reports. It can also be used to do knowledge management, meeting minutes, task management, etc. In the past, we used to use PPT slides or documents to compile information. I am glad that I learn this tool, looking forward to applying it into different fields.

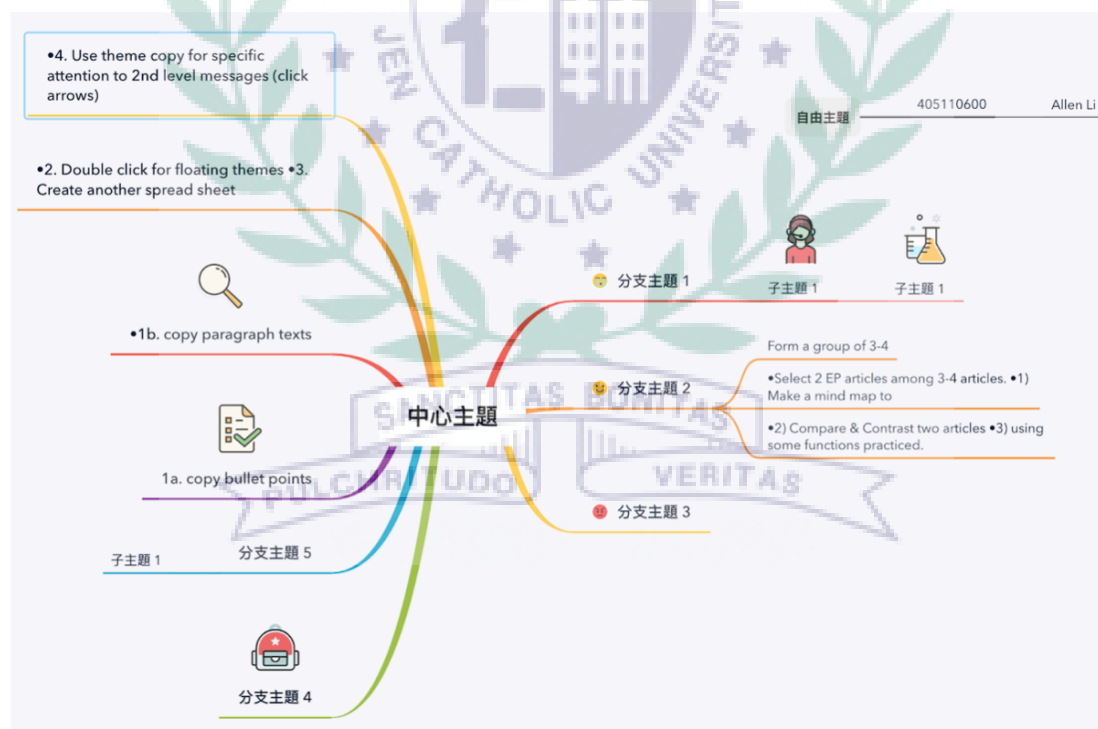
In-class Practice:



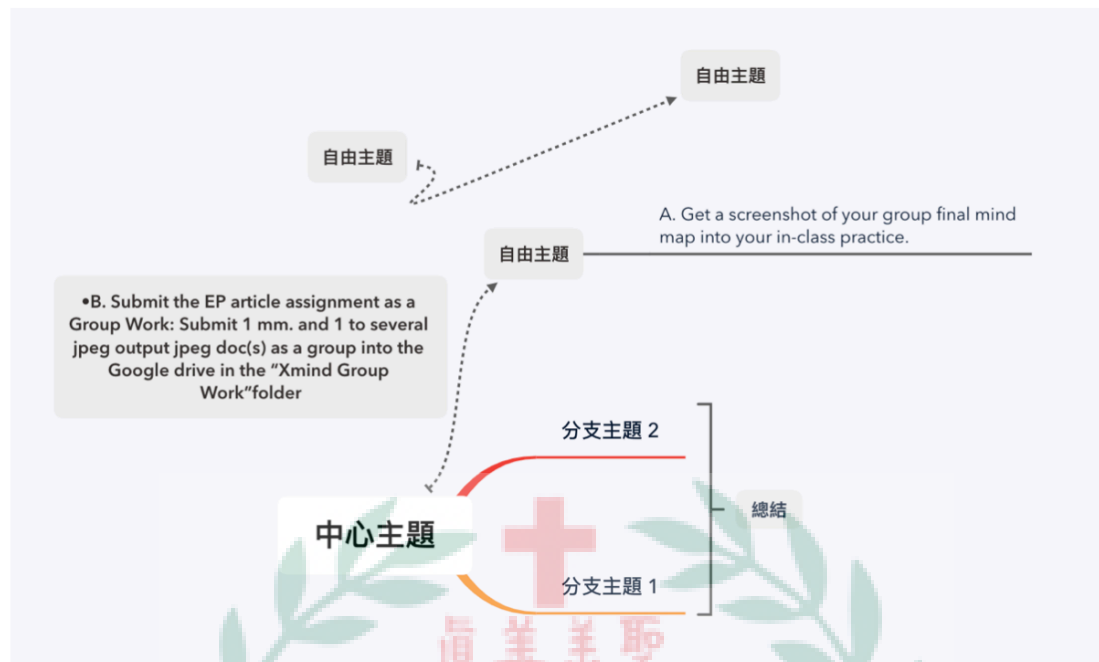
Change the color and the font and add an image.



### Add Relation / Create Another spread sheet



copy bullet points  
copy paragraph texts

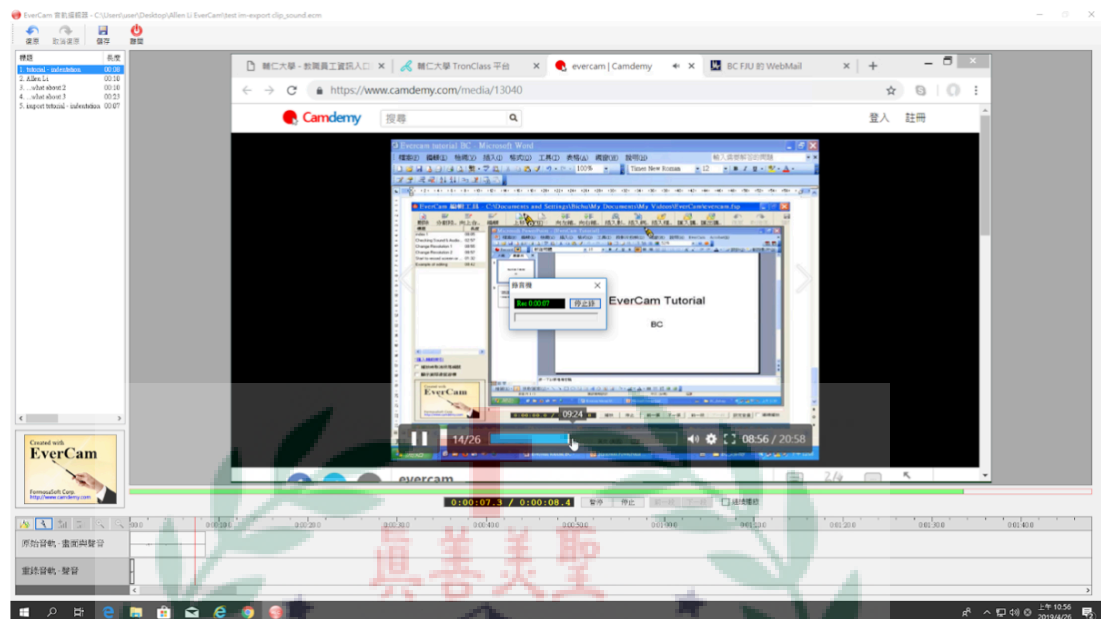


Use summary function

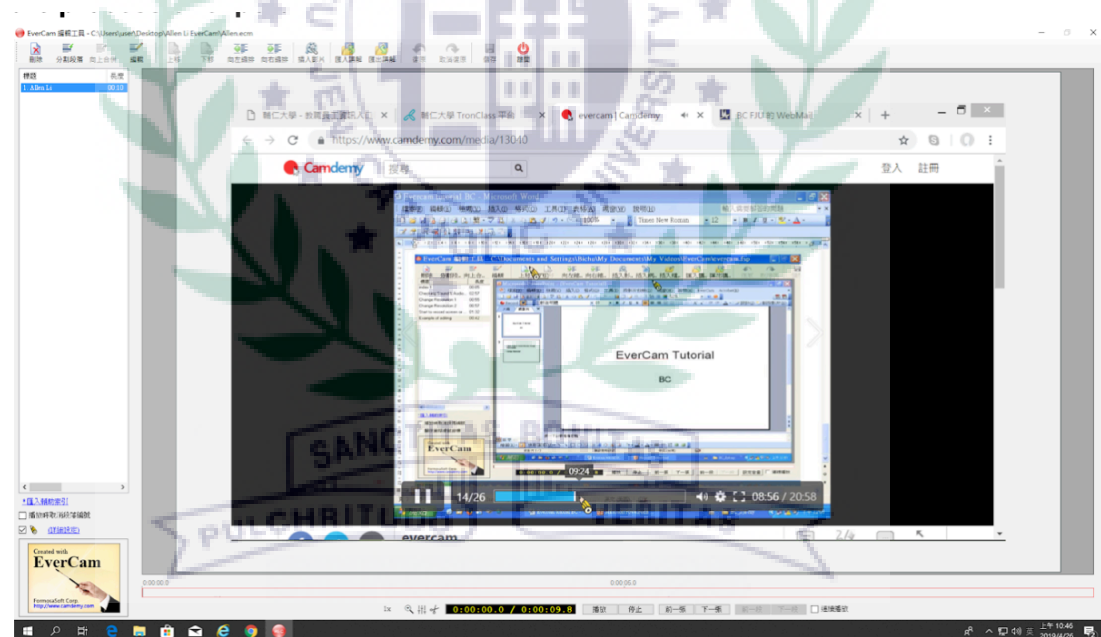
## Week 10: Evercam & Google Site Tutorial

Today, we first practiced some Evercam features, including trimming, editing, so on. Moreover, our group started our Google Site tutorial. We first introduced the interface of Google Site, and then taught them how to use Google Site step by step. I was in charge of embed pictures, texts, background images. Luckily, the whole process was successful.

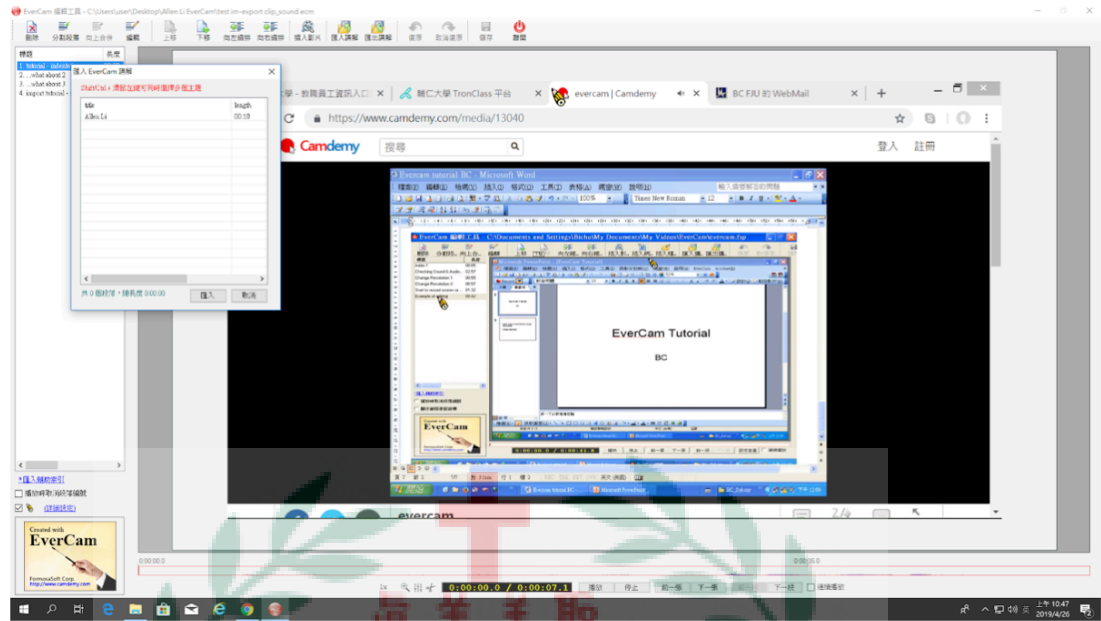
## In-class Practice:



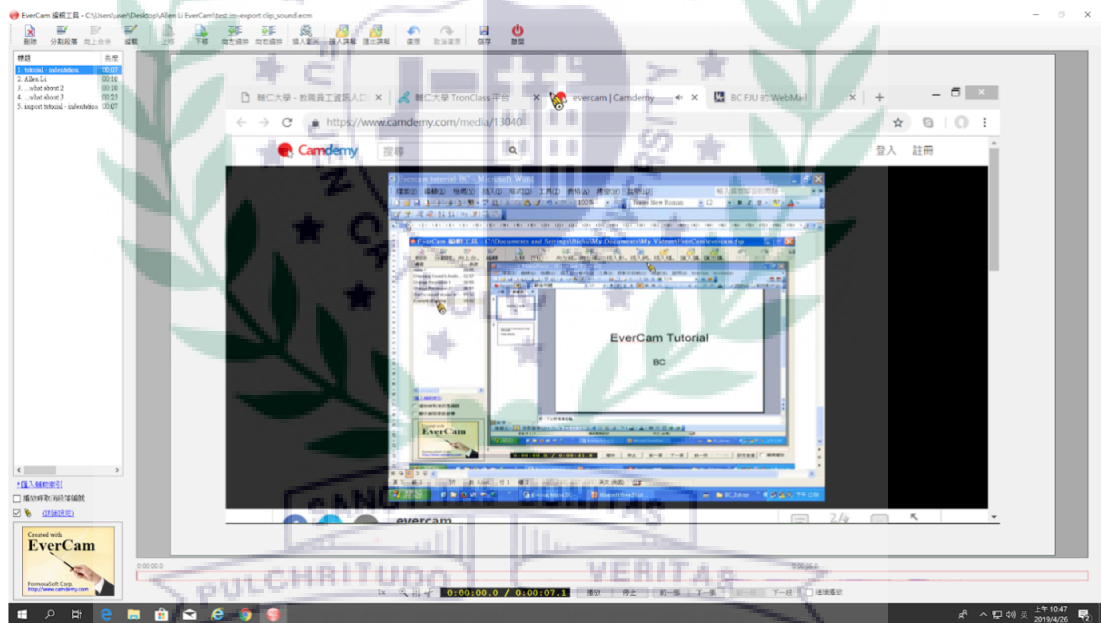
## practicing recording



## editing the name of import



## The process of import.

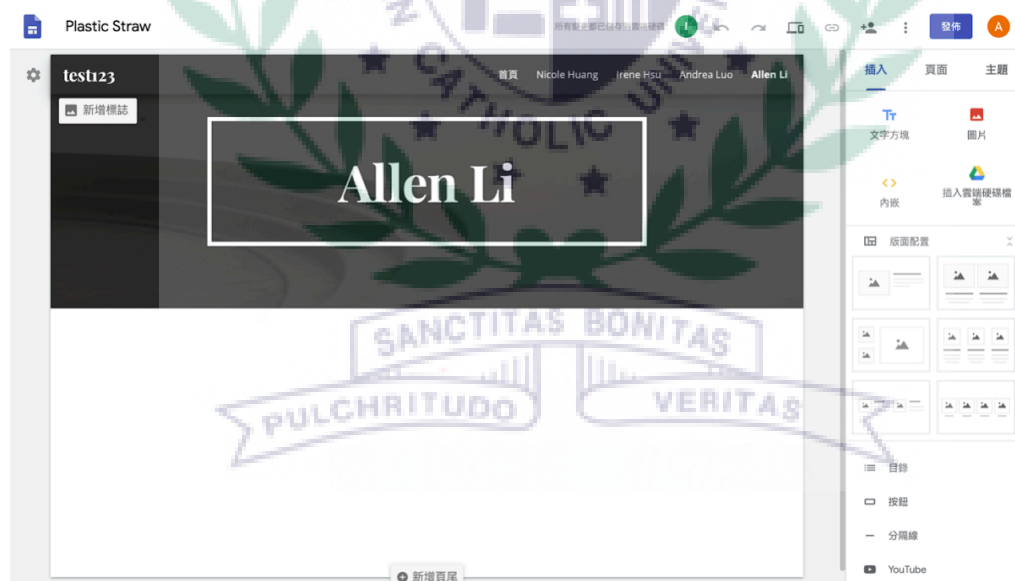


**The result of import.**

## Week 11: Google Site Tutorial

Today, our group first taught everyone the rest of functions on Google Site so that we could our own Google Site. We learned how to embed different items, such as Google Maps, and learned how to set a layer and sub-pages. In addition, I also worked on my tutorial Evercam. I started to trim it and exported it. Lastly, our group discussed our final project with BC. We now realized that we needed to provide a solution.

### In-class Practice:



adding layers





adding sub-page

Plastic Straw

所有變更都已儲存到雲端硬碟

IN A

發佈

In Class Practice

首頁 Irene Hsu Andrea Luo Allen Li Nicole Huang Nina Tong

新增標誌

# Restaurant

變更圖片 標頭類型

One restaurant's notice: We are reducing use of single-use straws. Straws available at request'

Allen Li 405110600


插入 頁面 主題

篩選頁面

- 首頁
- Irene Hsu
- Andrea Luo
- Allen Li
  - Restaurant
- Nicole Huang
- Nina Tong


+

adding text



Beyoncé

The Official Website of Beyoncé



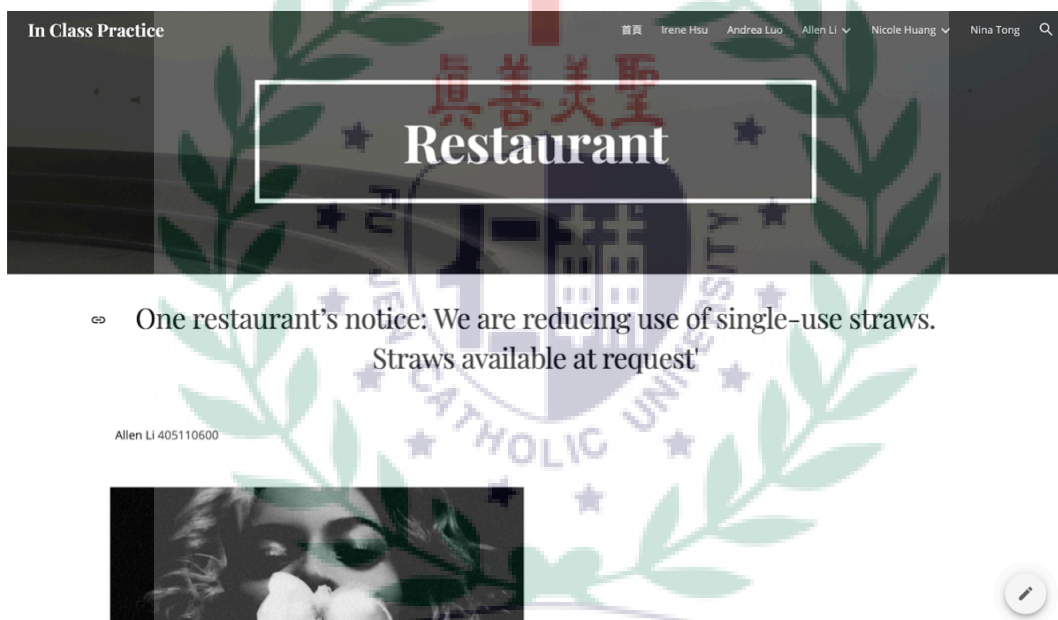
HOMECOMING WEEKEND

EMERITAS BONITAS  
FIDELITAS  
VERITAS

embed URL and YouTube



embed Google Maps

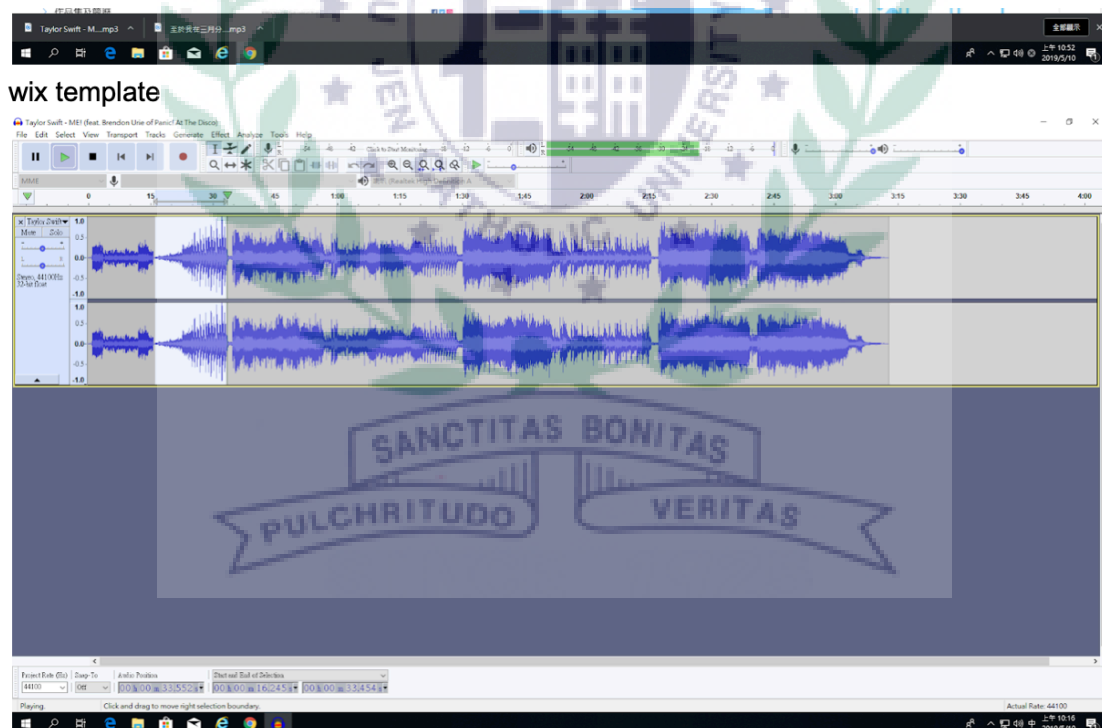


published website

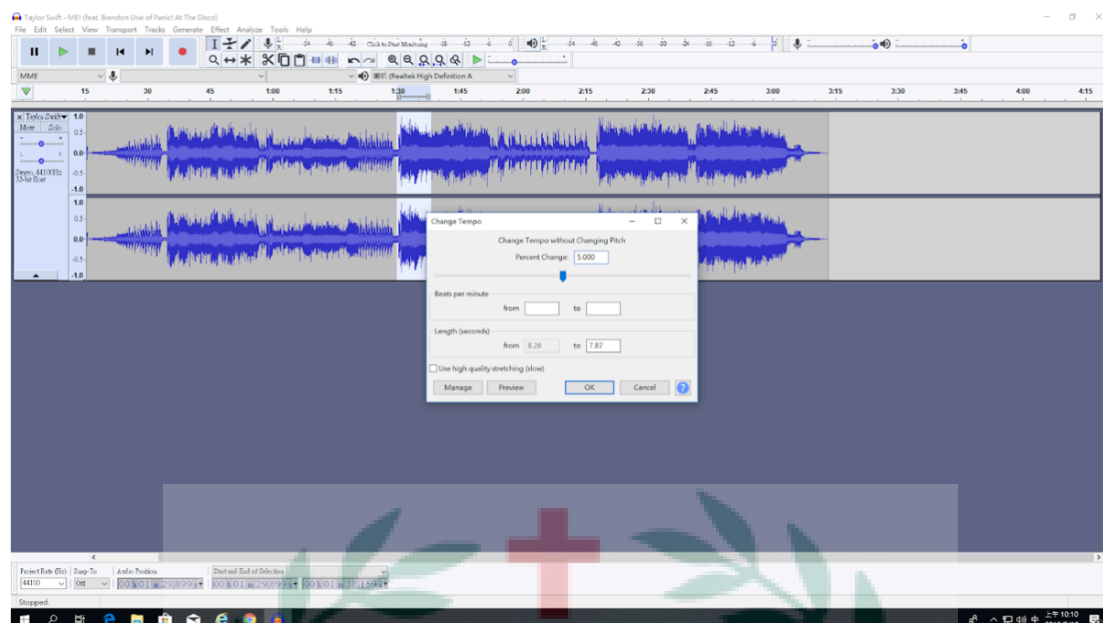
## Week 12: Audacity & Wix

We learned one platform and one software today. First, we use Audacity to edit the music, merge music, record, remove voice, remove noise. Second, we learn how to build a website by using Wix. There are not many restrictions on using Wix. We can easily change any photo, background, color, font, etc. I think I prefer Wix than Google Site. During the two tutorials, I didn't encounter difficulties.

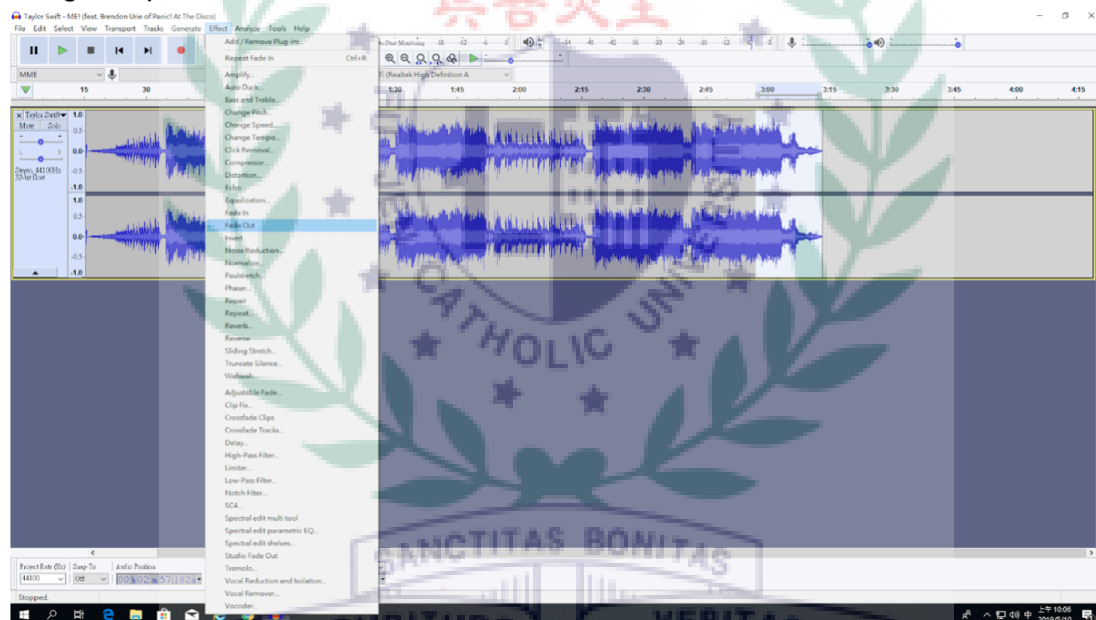
### In-class Practice:



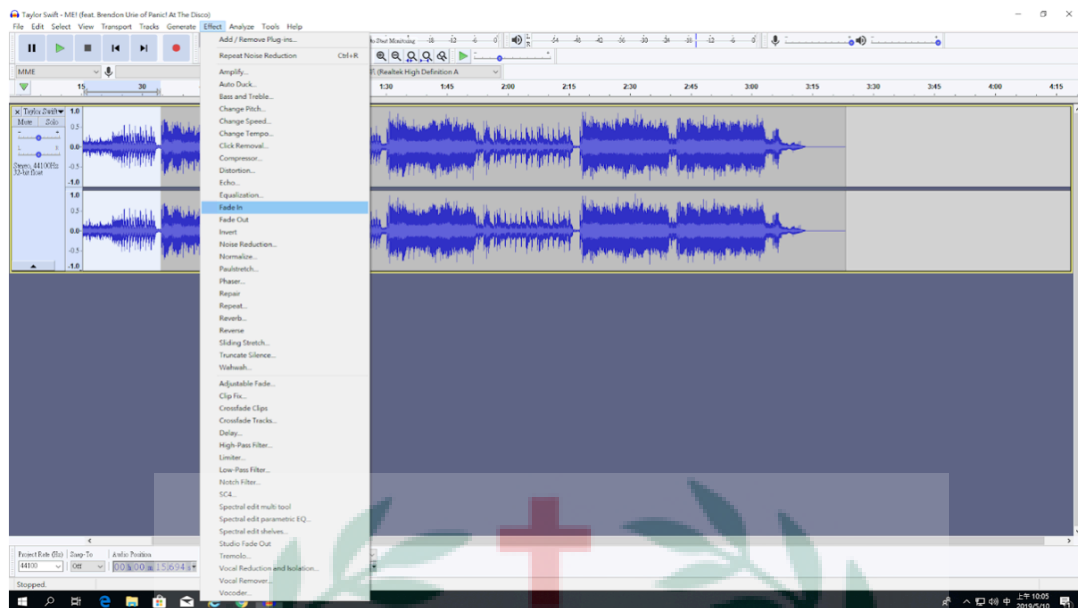
amplify



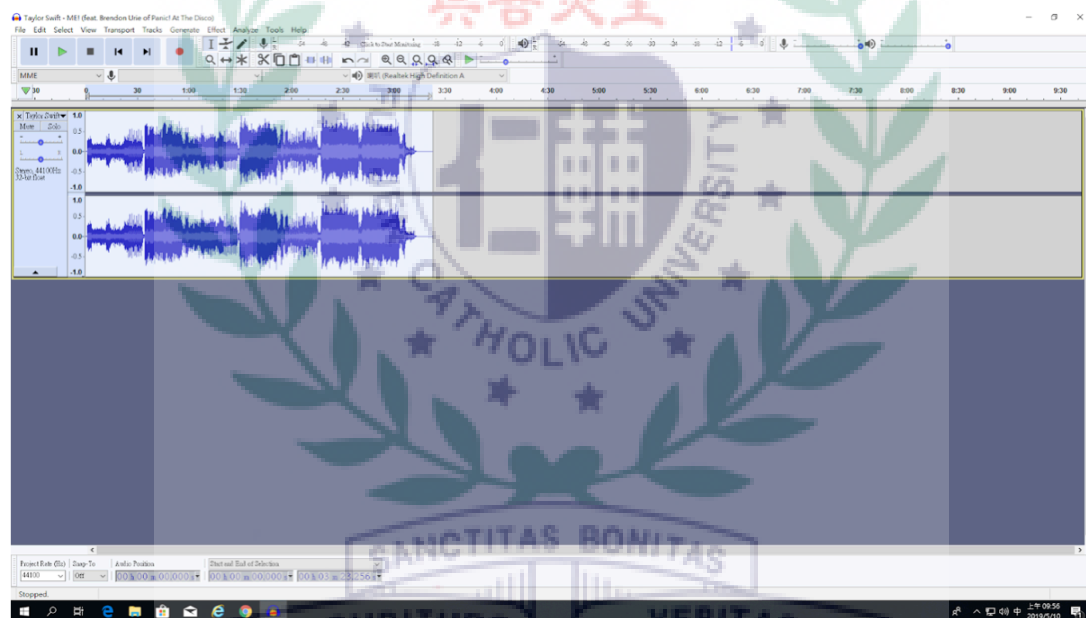
change tempo



fade out



fade in



remove vocal

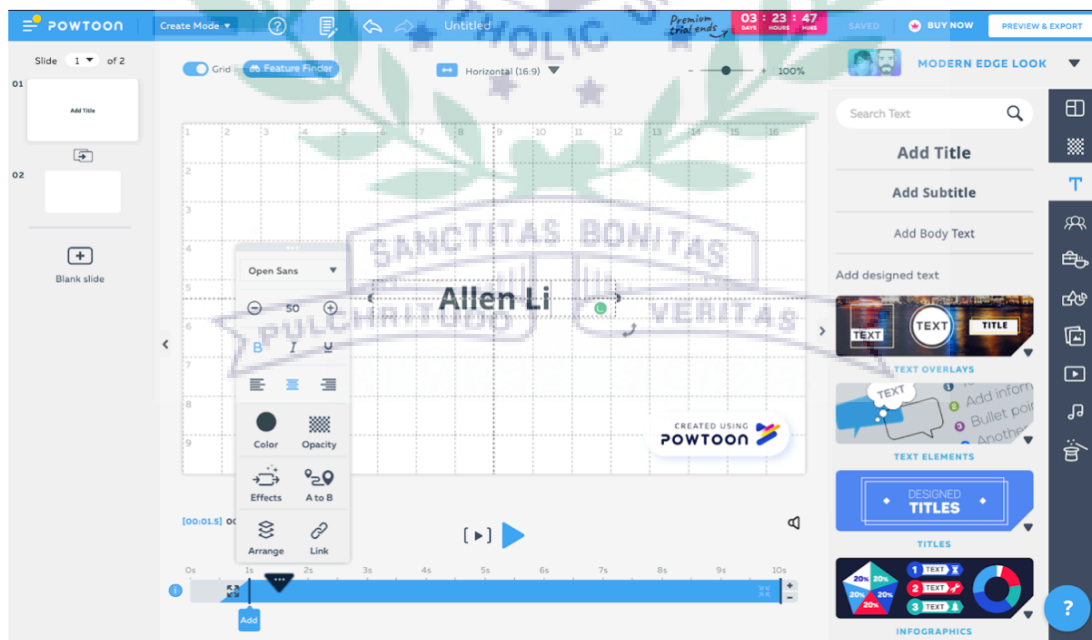
## Week 13: Powtoon & Cospace

We learned how to use Powtoon to make animation today. One of the big features of Powtoon is its “free” use. Powtoon is a combination of animation and graphics and is made in a similar way to Power Point. I basically love this platform and I will also use it in my final project.

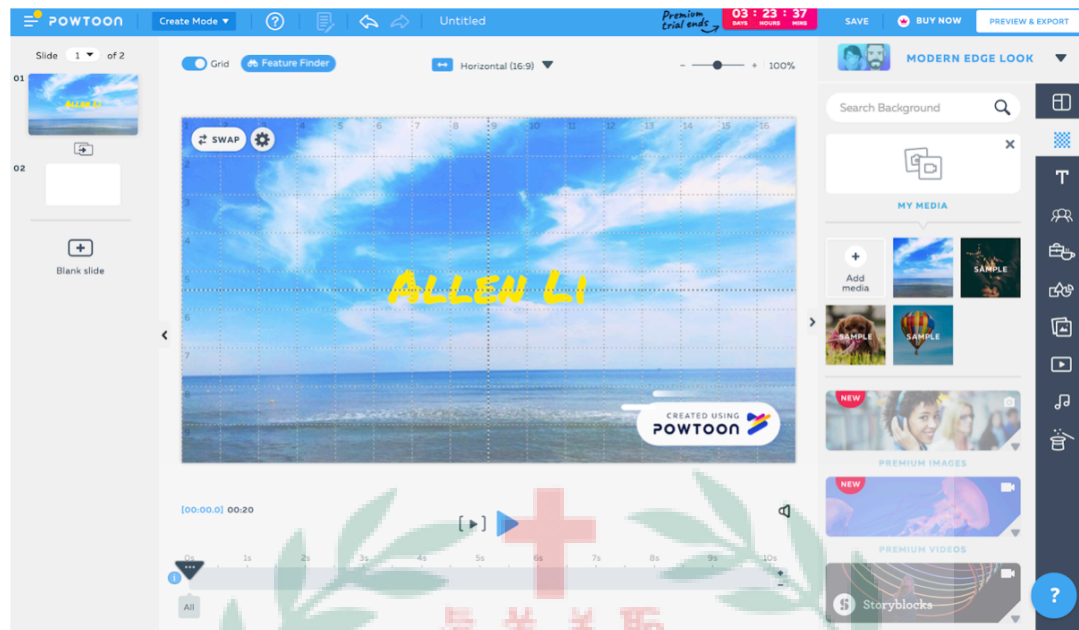
Another platform we learned today was Cospace. Compared to Powtoon, I think it is not that useful for me. Since we use the free version, we can't access the majority of functions. However, the tutorial group did a great job.

I didn't encounter any major difficulties today.

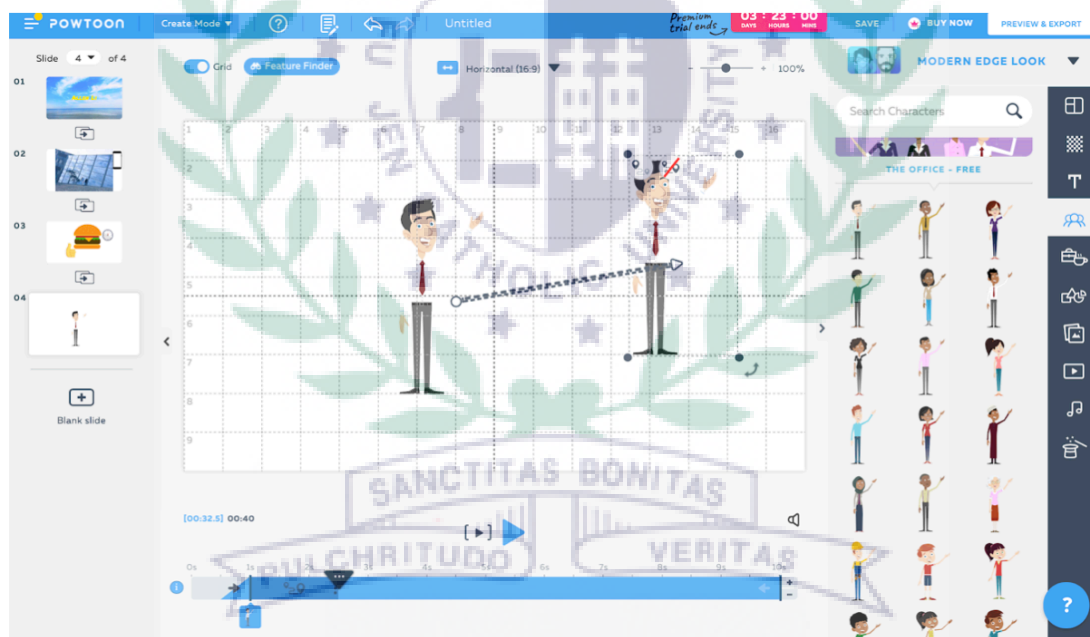
### In-class Practice:



Learn basic functions



Add Background



Create animation by adding characters and setting the routes.



## V. Conclusion: Reflections and Thoughts for Creating This Project

Our common form of presentation has always been using PowerPoint slides.

This time we presented our project as a website. Generally, most web content consists of text or a few pictures, which does not really attract readers' interest and is monotonous. Sometimes even though the speaker speaks well, the materials he or she uses still can't arouse people's attention. In our project, we tried to use different multimedia materials, software and so on to turn the text into vivid animation or colorful graphics. In this way, we want the listeners to be able to absorb the information we provide in the fastest and effective way, and to be able to get involved in the presentation through the auxiliary multimedia

This new experience is valuable to me, for we don't have the opportunity to learn about different applications in other courses. In the process of production, although there were some complaints about some products such as Google Site, I was still very excited when the final result came out. I don't think this project is easy to achieve, especially for beginners. Some software is not very easy to use, but we still have to try to use them in our project. We communicate our ideas in the most effective way through detailed text and multiple images and videos.

Overall, I believe that our website can provide a wealth of information to the general public about the problems caused by plastic straws and what alternatives

are available. I also hope that people who browse our website can try not to use plastic straws in the future. After all, each of us has a responsibility to work together to protect the earth.

## VI. References (Works Cited -Divide your references into categories)

### A. Text sources

- 李 修慧 . “「可分解餐具」出了實驗室就變「假的」，你還在用小麥碗筷、玉米刀叉嗎？.” *The News Lens 關鍵評論網*, 25 Jan. 2017, [www.thenewslens.com/article/59293?fbclid=IwAR24W6nAtToHV9\\_1PVZuklQovGdmVe9PBk9szTKPfUb3vNd5hRcYA1GI5nA](http://www.thenewslens.com/article/59293?fbclid=IwAR24W6nAtToHV9_1PVZuklQovGdmVe9PBk9szTKPfUb3vNd5hRcYA1GI5nA).
- 林 安儒. “別再說回收就好！全球每年製造 90 億噸塑膠，超恐怖汙染禍及地球每個角落...-風傳媒.” *風傳媒*, 6 June 2018, [www.storm.mg/lifestyle/445499](http://www.storm.mg/lifestyle/445499).
- Hung, Julie. “禁用塑膠吸管怎麼辦？吸管七種材質一次評比 - 好日子.” *Agooday*, 6 June 2019, [agooday.com/archives/54678](http://agooday.com/archives/54678).
- “Why Plastic Straws Are Being Banned.” *Square*, [squareup.com/townsquare/why-plastic-straws-are-being-banned](http://squareup.com/townsquare/why-plastic-straws-are-being-banned).