

Cat 4 Resource Development: Written Report
Group 4-051: Evolution of Buses

(Leader) Tay Chee Hian Julian 2P2 (26)
Aydan Oh Yi Qi 2P2 (01)
Phoon Jun Xian 2P2 (21)
Tan Jun Rui 2P2 (25)

Abstract

1. Introduction

1.1 Rationale

Even though many Singaporeans use buses as their main mode of transport daily, most do not know much about buses, apart from the few bus enthusiasts. We believe that with such extensive use of bus transport daily, it is time to spread information and some characteristics of buses to get them to understand more about this sector.

1.2 Objectives

Our main objective of this project is to let the general public, especially the younger generation know more about and appreciate the evolution of buses in Singapore, from the 1920s till now. Apart from that, we have a few side objectives too. We aim to let the general public know more about the pros and cons of taking buses, the current bus models and the future of the bus industry, some of the more significant bus interchanges and how they have changed over time, and understanding whether buses are gaining or losing relevance in today's society.

1.3 Target Audience

Our target audience is the general public, especially the younger generation. This includes those who do not have an interest or understanding of buses, people who regularly take buses and want some light information about this transportation mode, or bus enthusiasts.

1.4 Resources

The resources used for this project are: Google forms for the surveys, Padlet for the map of bus interchanges in Singapore, Land Transport Guru, Wikipedia and other websites for research, visiting bus interchanges to take photos

2. Review

Not many Singaporeans know or care about the history of buses even though many people use it as a mode of transportation. Moreover, there are many websites that are available such as Land Transport Guru and Wikipedia, but most people may not understand the contents of it as it is too complicated.

3. Methodology

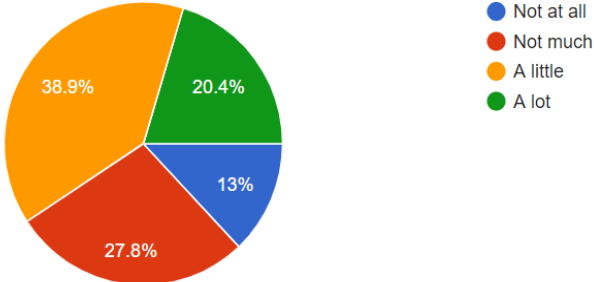
3.1 Needs Analysis

A needs analysis was conducted to ascertain the relevance of this project. We created a survey, which we spread to many of our friends to find out about the respondents' understanding of the evolution of buses. Most of the respondents did not know much about buses, and agreed that the public should know more about buses, as they felt that it would be beneficial to the public. About half of the respondents used buses as their main mode of transportation.

3.2 Survey Results

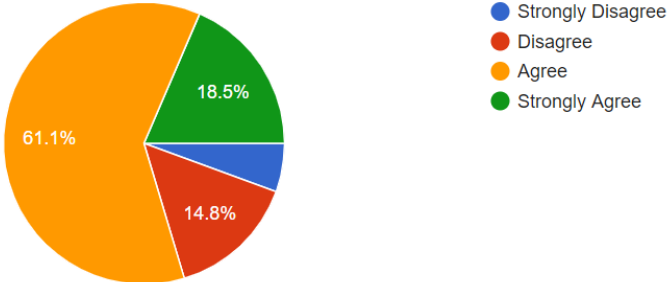
Q1a) How much do you know about buses as a transport in Singapore?

54 responses



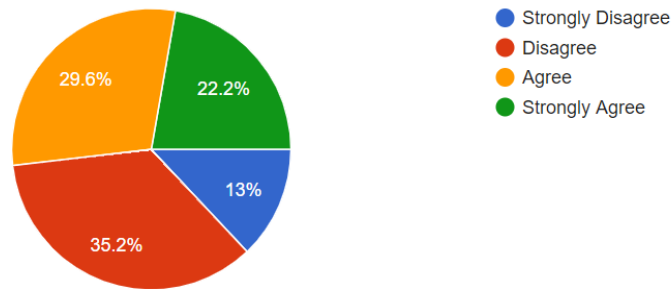
Q2a) The public should learn more about buses.

54 responses



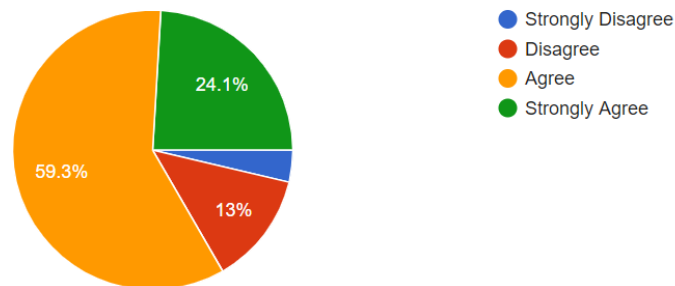
Q3a) You take buses more frequently than any transport.

54 responses



Q4) Do you think the public will benefit and have a better understanding of buses after our project?

54 responses



Comments from the survey for the final product:

- **“Great website! Although most of the information can be found on other websites, this website compiles all of them into one website, and it is pretty interesting” ~ student, 14**
- **“Many pictures and videos made this website entertaining, and the paragraphs are short and simple, so it is easy to understand.” ~ student, 14**
- **“This was a really informative websites but please try to include like the meanings for some of the terms used because I don’t understand some of them” ~ student, 15**
- **“Generally very concise and good and is done quite well.” ~ student, 13**

3.3 Development of Resources

We carried out research through checking up many websites and sources to obtain information about different sections of bus transport, such as the history, the different bus models and background information of all the bus interchanges in Singapore. We tried to give concise information for each section.

About the history of buses, we broke it into two sections, talking about specific or important parts of the history, which include the changes between operations and some events that impacted the bus industry.

About the bus models, we talked about the parts which make up a bus. Followed by that, we introduced the bus models, starting from the older ones, to the newer ones. Specific bus models that have improvements like air-conditioning to them were included too, with the exact time in which they were brought in.

About the bus interchanges, we marked out the different locations on a padlet, which we included the link to in the site. We also included information about the interchanges on the padlet page, which makes this google site more interactive. It shows where the different bus interchanges are, the creation of these interchanges and whether there are any improvements or differences in them.

3.4 Pilot Test

A pilot test was administered in 2 phases.

1) First of all, we created the Google Site that would contain all the resources and information that we have compiled. As we were touching up the website, we created a survey, to gauge whether the public knew much about buses. We received a total of 54 responses. These are some of the things that the public know about buses:

- “Buses go all around Singapore and you use your ez link card to pay. They are used for getting people around quickly and many people benefit from it.” ~ student, 14**
- “Buses are one of the modes of transport in Singapore and are used to reach places where MRT do not service.” ~ student, 14**

- “the condition of the stc after ww2 was very bad” ~ student, 13
- “hock lee bus riots”
- “Locations of bus depots, bus deployments, feeders and trunks, perm deployments, down trips, bus models (mercedes citaro, volvo b9tl, man a22, cedges, BYD k6&k9, yutong e12 etc.), critique bus routes and deployments, layout of interchanges, services etc.” ~ student, 15

This allowed us to focus our website to show more information that most of the people did not know about, for example models of buses, their history and the bus interchanges.

2) When we completed our website, we created another survey, which had the link to the website. We allowed people to take a look through our website, then comment on things that we did well and things that needed some improvement. Based on these suggestions, we changed our website and it was much better. This time, we had 91 responses. Our website proved to be pretty informative and easy to understand as 86.8% of the respondents agreed on that. 73.7% of the respondents also agreed that our website is better than other websites at presenting information. This is what the public thinks of our website:

- “Great website! Although most of the information can be found on other websites, this website compiles all of them into one website, and it is pretty interesting” ~ student, 13
- “This was a really informative websites but pls try to include like the meanings for some of the terms used because i dont understand some of them” ~ student, 14
- “Honestly, even though i think it was presented decently, it kinda got abit boring aft some time.” ~ student, 14

4. Outcome and Discussion

Our website proves to be effective, as it received positive feedback. Our website was actually improved in many ways. First of all, we did not know what to do with the bus interchanges. However, we came up with the idea to create a padlet map that will indicate its location and provide information. Videos and pictures were also included to make the website more interesting and attractive.

5. Conclusion

Evolution of Buses has been a challenging project for us, especially since there were some periods of time when we had to stay at home with the heightened measures which were implemented due to the worsening Covid-19 situation. We were unable to go out to take pictures of buses as a group during these times, and were unable to interview people about the project. Furthermore, we had a tight schedule as tests started piling up, especially in term 3. In addition, Padlet was updated at one point, and some of the words were blurred out, which gave us quite a shock. However, we struggled against all odds and managed to fix the issue. We managed to complete the website and publish it. The website was a success. Although there were still some slight problems we had to fix, the overall comments were positive.

6. References

***Singapore transport information at a glance!* Land Transport Guru. (2016, March). <https://landtransportguru.net/>**

Wikimedia Foundation. (2004, November 11). *Public buses of Singapore*. Wikipedia. https://en.wikipedia.org/wiki/Public_buses_of_Singapore

***Scania K230UB (EURO Iv) (BATCH 1)*. SgWiki. (2009, October 31). [https://sgwiki.com/wiki/Scania_K230UB_\(Euro_IV\)__\(Batch_1\)](https://sgwiki.com/wiki/Scania_K230UB_(Euro_IV)__(Batch_1))**

Revision history of "singapore bus fleet". SgWiki. (2014, August 28).
https://sgwiki.com/index.php?title=Singapore_Bus_Fleet&action=history

Tahir, I. (2015, August 28). *Mosquito bus*. Infopedia.
https://eresources.nlb.gov.sg/infopedia/articles/SIP_2015-08-28_160901.html

'Mosquito' buses in singapore (1920s-1930s). Wiki.sg. (2019, July 19).
https://wiki.sg/index.php?title=%27Mosquito%27_buses_in_Singapore_%281920s-1930s%29&action=history

Wikimedia Foundation. (2003, December 31). *Mass rapid Transit (Singapore)*.
Wikipedia.
[https://en.wikipedia.org/wiki/Mass_Rapid_Transit_\(Singapore\)](https://en.wikipedia.org/wiki/Mass_Rapid_Transit_(Singapore))

Wikimedia Foundation. (2004, January 18). *Sbs transit*. Wikipedia.
https://en.wikipedia.org/wiki/SBS_Transit

1983: Singapore gets a new public transportation service. Transportation
History. (2020, April 3).
<https://transportationhistory.org/2020/04/03/1983-singapore-gets-a-new-public-transportation-service/>

Sbstransit. SBS Transit. (n.d.). <https://www.sbstransit.com.sg/>

Singapore shuttle bus. Timothy Mok Cars Wiki. (n.d.).
https://timothymokatcars.fandom.com/wiki/Singapore_Shuttle_Bus

Bus service Enhancement Programme (bsep). Land Transport Guru. (2018,
March 5).
<https://landtransportguru.net/bus-service-enhancement-programme-bsep/>

On-demand public bus. Land Transport Guru. (2020, February 12).
<https://landtransportguru.net/bus-services/on-demand-public-bus/>

Days of rage - s1: Hock Lee bus riots. CNA. (2019, August 2).
<https://www.channelnewsasia.com/watch/days-rage/hock-lee-bus-riots-1503416>

SMRTCorpSG. (2017, August 10). *SMRT buses - Singapore's first three-door bus!* YouTube. <https://www.youtube.com/watch?v=Ff8jYYD7s7E>

Bus contracting model (bcm). Land Transport Guru. (2021, June 16).
<https://landtransportguru.net/bus/bus-contracting-model/>

Wikimedia Foundation. (2003, February 14). *Chassis*. Wikipedia.
<https://en.wikipedia.org/wiki/Chassis>

Wikimedia Foundation. (2001, October 14). *Engine*. Wikipedia.
[https://en.wikipedia.org/wWikimedia Foundation. \(2008, March 12\). *Bus manufacturing*.Wikipedia.](https://en.wikipedia.org/wWikimedia Foundation. (2008, March 12). Bus manufacturing.Wikipedia.)
https://en.wikipedia.org/wiki/Bus_manufacturing/Engine

Wikimedia Foundation. (2008, March 12). *Bus manufacturing*. Wikipedia.
https://en.wikipedia.org/wiki/Bus_manufacturing

Final Product:

A Google site which talks about the different sections of the bus transportation system, including its history, the different bus models. A padlet interactive map is used to include information about the bus interchanges in Singapore.