SMT201 Team 5 Meeting Minutes

# **Meeting Minutes**

| **Date of Meeting:** | 12/10/22 |
| --- | --- |
| **Start Time:** | 0900 |
| **End Time:** | 1200 |
| **Present:** | Jayme, Danelle, Chloe |

# **Agenda**

| **No** | **Item** |
| --- | --- |
| 1 | Choosing of Topic |
| 2 | Project Motivation |
| 3 | Project Objective |
| 4 | Scope of Work |
| 5 | Action items |
| 6 | Next Meeting |

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# Meeting Notes

## Choosing of Topic

**Final Decision**: Sub-theme 1 - Impact of closures or mergers of education institutions on equity of access.

**Discussion**

Chloe is leaning towards Theme 1 as she thoroughly enjoyed the lesson on sentinel data and would want to explore more about it. While we empathised with Chloe’s perspective, we believed that we would be more comfortable doing Theme 2 as we are more familiar and have sufficient practice with the concepts.

Jayme prefers sub-theme 1 as it is an interesting topic and very relevant in our society today where more schools are merging due to Singapore’s decreasing population. However, Chloe prefers sub-theme 2 as she is interested in the Thomson East Coast line due to plans to open a new station outside her house. Danelle finds sub-theme 1 extremely relatable as she came from a junior college that was newly created and received criticism from the masses who did not understand why a new school was created while other schools had to be merged.

**Concerns**

* Mac issues faced when loading Sentinel Data
* Insufficient practice with Sentinel Data

Eventually, we unanimously agreed that Theme 2 is more interesting and relatable to us, aligning with our interests. Ultimately, we decided to go with sub-theme 1 as we found that it was straightforward and we had more ideas as to how to approach the sub-theme.

## Project Motivation

When discussing the motivation for our project, we found that we were passionate about finding out about the impacts of merging schools in Singapore as they have affected us personally and are something close to our hearts.

We broke down the sub theme and identified the problems related to it.

Problems that Singapore currently faces:

* Decreasing birth rates
* Limited land for development
* Parents’ demand for better education near them

Hence, we concluded that with decreasing birth rates in Singapore and changing demographics, resulting in lower enrolment rates to school, we observe that certain areas have lower demand for schools. Hence, MOE has made plans to merge schools in Singapore to better allocate resources to areas that may need such as land for redevelopment.

## Project Objective

We want to find out the effects of merging schools in Singapore and analyse the cost benefit analysis\*, why the government chose to merge specific schools instead of another and whether there are enough schools in the area to meet demands in different regions of Singapore. We also wanted to find out which areas have less schools and hence are less accessible which may potentially affect the choices of housing. Afterwards, we want to analyse how all these factors have affected the equity of access to schools in Singapore. We also considered finding the benefits to those where the school merged as compared to how people living near the area of closed down schools have ‘suffered’ from it.

\*However, upon consultation with Prof Kam, we decided to modify our project objective as this may not be a realistic objective for this project.

## Scope of Work

We have decided to take the following steps for our project:

* Selection of project areas of schools in Singapore and years that mergers took place.
* Collection, extraction, integration, transformation and wrangling of data of schools in Singapore.
* Designing and building GIS model and database to map the accessibility of schools in Singapore.
* Preparing report of findings
* Performing site suitability analysis by integrating GIS and multi-criteria evaluation methods.
* Preparing site suitability analysis report including detailed discussion of the analysing method used.
* Preparing poster and project webpage.

# Action Items

* Set consultation date with Prof Kam
* Research on data sets that can be used

# Next Meeting

* KGC PR 4.05 9am-12pm
* Consultation with Prof Kam from 9.30am-10am

# Meeting with Prof

* Upload minutes on eLearn, don’t need to include on project website
* Understand what we have learned in class so far
  + Not an urban/social policy class
  + Not analysing why the government made certain decisions
* Data-driven analysis
  + GIS as descriptive/prescriptive analysis
* Hands-on ex 9 accessibility analysis
  + Replace elderly care with schools
  + One layer before school close
  + One layer after school close
  + Look at **accessibility index** change (at hexagon level)
  + Increasing birth rate has nothing to do with project
  + Determine which part of sg has more access to schools
  + Data preparation will be different since for elderly care we assumed they are all taking transport
  + The type of road system they are using will not be expressways for students
* Search for primary / secondary, decide what education levels we want to do
* Decide time period
  + Look for all the schools that exist, and after they declare the merger, which schools will be the ones that have merged
* Using choropleth map to analyse distribution of young
  + He said we can if we want
* Filter / delete away the schools
  + Very few that we need to add in, but if need to we can manually add it in
* Accessibility before merging and after merging
  + How we decide to find this we can decide ourselves, whether by calculating the distance etc
* Which part of sg has better accessibility to education?
* Can use travel time -> hands on used distance but can use time if we want
  + Need to consider speed limit on the road to calculate the travel time
* Focus on the spatial data
* Project objective
  + Cost benefit analysis is a big topic in political science – social cost, economic cost
    - A lot of examples/guidelines of how to do that
  + Some data from GIS may be an input of cost benefit analysis, but need many others
  + All the factors need to translate into monetary terms
* 2 rounds of merging – we need to decide the timeframe / temporal scope
  + Look at mergers Lawrence Wong announced
  + Another one..? Before the next minister took over
  + Merging is an off & on exercise – we are looking at the massive merging exercises where the minister announces why we are merging