NANYANG
THE INNOVATIVE POLYTECHNIC

SCHOOL OF BUSINESS MANAGEMENT

BM4009
DESIGN THINKING FOR INNOVATION

2022 SEMESTER 1

ICA1

INDIVIDUAL REPORT

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DATE : 29 May 2022

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1. **Introduction**

The topic of this report is on “Reimagining Mealtime experience in NYP”. This topic is set during the covid 19 pandemic and as such will have 1 extra major factor to count into the fray, some effects the pandemic has caused within the mealtime experience in nyp includes the restriction of outsiders to eat within our nyp canteens, the reduction in number of seats (about half of the seats in each canteen or more have been “taped off”) and reduction in maximum number of people per table etc. this has caused a massive change in our nyp canteens and probably has large effects. Aside from that, there are also many other factors affecting the mealtime experience in nyp as a whole, for example, not everybody goes to the school canteens during mealtimes because they might prefer the outside food over school food, and some might just not eat that much to begin with, and others might bring their own packaged lunch/dinner to school. While some people dislike the school food, others might love it, as a whole, the mealtime experience in nyp is rather varied for many of us due to the different lifestyles, personalities, professions, and choices we make. This also means that the mealtime experience could be rather important, for starters, this is one of the only long breaks people would get in a day (especially for those who have lessons that last for 5~7 hours) so it has great impact to the mental health of the people at nyp (aside from the satisfaction of consuming food). This is because it could help students and lecturers relieve stress (by eating or doing work to meet deadlines), for the vendors, they can sell more food and get more business so that they can rest easy knowing they are making money and not worry about putting food on the table or whatnot, cleaners can take the opportunity to interact with the people in the canteens and socialise and relieve their own worries and stress through word of mouth. These are just simply some of the things that can or have happened in our nyp mealtimes, and these are also the very reasons that make our mealtimes at nyp so special.

2. **Empathise Stage**

Based on the information I had gathered from my first interview with Darrel (refer to appendix A) I was surprised to know that someone was consistently finding seats in the canteen he visited (namely koufu, see appendix A.1) despite mentioning the fact that the place is normally crowded. Sadly, other than that, I could not get much other information from him verbally as the meeting was too short and ended in 2mins. Intriguingly enough, I actually could not find any other sort of important information other than that.

As for my second interviewee, it was Daniel who was graduating soon (as of the time of the writing) he told me that there was an issue with too many people and wanted to increase the size of the canteen if possible but figured it might have been a rather impractical request and instead figured that adding more seats might help. From this I can infer that his main issue for the canteens was the lack of seats, or more specifically, the number of people plus the reduction of seats due to covid. Besides that, I could not infer any more important information. (Refer to Appendix B)

And moving on to my third interviewee(whom I ended up interviewing twice because I forgot to record the first time), while she spoke the most of the three (at 3 minutes instead of 2) she was also the first one I did an interview with through discord (basically through zoom to make things easier to understand) and from what she said, she didn't like the school canteens because of the food not being as good as outside food, difficulty finding seats, too many people and long ques, the only thing she mentioned she liked about the school canteens was that they were air conditioned(koufu). At the end of the day, I could tell that she was facing major difficulties mainly due to the large number of students in the canteen, with only 1 other possibly redeeming fact being that koufu has air conditioning.(see appendix C.1) from what she said, I can infer that there are too many students crowding the canteens (more specifically koufu for its air conditioning) and there exists a need for better food.

From these 3 surveys, I can infer that students (the main group of people I have interviewed) are having difficulty with the number of students in the canteens (or more specifically koufu) and some might also have difficulty enjoying the school food in general as there are other more delicious options to them that they can access by simply taking the MRT near to the school.

And from what I inferred they were thinking based on their words and actions, I can say that there are clearly people who are dissatisfied with the number of people who are in the canteens at their meal time, but oddly enough it seemed as though they are mostly just going to koufu, perhaps it is due to the air conditioning, but when I interviewed the different people, Darren was interviewed at block b, just at the hallway beside food connect at level 2, Daniel was interviewed at block R at the engineering block at level 3, and Audrey's classes are at block P level 5 and it is odd to think that all these different people from different parts of the school would go straight to koufu of all places to eat, probably due to the air-conditioning but if that is the case then it is rather interesting to know that, that is the kind of place koufu is, overcrowded with people from all over the campus, yet everybody goes there thinking it is almost always over crowded. Well, it is not the only place as Audrey also mentioned going to another canteen yet used the terms about there being too many people as though it is basically almost everyday that she sees that many people so it might be a bit odd to just think of it as a koufu only issue but the overarching issue from this is basically the fact that there are too many people in the canteen(s).

3. **Define Stage**

I have decided to combine all 3 of my interviewees into 1 composite human and with this composite human I can say that **it is interesting/surprising** that everybody I have questioned had issues with there being too many people (that and that all of

them go to koufu, but with Audrey's statement including another canteen it might not be good to assume it is only koufu). And one thing that seems important to my composite human is the need to get a place to sit at in the canteens (and perhaps shorter ques). After seeing all of this, I am starting to wonder if this means that there are simply far too many people in the canteens? If so then I would have to question myself, how might I help this composite human of mine in reducing the number of people in the canteens?

The reason I think that the main mission statement of mine should be on how I can help this cute composite human of mine reduce the number of people in the canteens is because almost all of the major issues in the canteens is with regard to the number of people, first of all, overcrowding in a canteen due to humans is legitimately an issue that is directly related to the number of humans in the place, besides that, after the number of seats in the canteens have been halved, the number of seats remaining is directly related to the number of people seating on them which is yet again a number of people issue, and of course the que length is also related to the number of people in the canteens as it is those people that are queuing up Afterall, so I came to the conclusion that if I can reduce the number of people in each of the canteens in general, I can directly assist in reducing all of the three issues I had mentioned previously.

4. **Ideate Stage**

(This happened after certain covid19 restrictions were lifted)

In order to help us get ideas, my teacher was kind enough to let us do a class activity, where we use 1 word from a random word generator to come up with linking words to create ideas for each of our personalised overarching issue, and so I got the word payment. After splitting up the word payment to 3 different words card, cash, and people, and further splitting them up to digital and convenience, greed, and fun as well as friends and enemies. I came up with 5 different ideas (of which most were unrealistic), of which included.

- Creating an Electronic Road Pricing (ERP) for the canteens, where some canteens that are often gone to cost more than others to enter(perhaps 50cents, 20 cents and 10cents) and the most isolated canteens cost nothing to enter, this idea is meant to spread the students into all of the different canteens
- Build a new canteen
- Getting your friends to reserve a seat first
- Enslave your enemies and make them reserve a seat for you and que up for you.
- Hosting a plethora of activities during mealtime

5. **Prototype Stage**

Based on the ideas I initially just thought to stick “activities during mealtime” as the rest seemed… very morally wrong, and I doubt a school that would accept morally wrong practices would be allowed to continue existing without any setbacks. Then the following week during lesson when the teacher showed us a piece of paper with phones on it to draw out our prototype, I came up with an idea, which is basically an app that tracks the number of seats in a canteen.

And with that, I came up with NYPCanteens, an application that required the students to scan some sort of machine outside the canteen entrance to enter(very similar to safe entry). And people can scan another machine on the tables that light up to show that it has been reserved by them. And this will also show on the application so people can see which seats are reserved.

The more I planned, the more I added, because I felt that an application would need to have more than just 1 function, Afterall, people won’t want to download an app that just tells them 1 thing, so I figured to add not only the canteen stalls, but even the menus of each stall, but realised it might be too difficult to check each one, so I added a menu button(home menu button that allows the user to locate each button they want) but I realised it might be too tedious and complicated, so I just kept it simple. (refer to appendix E.1, and E.2, for image, for verbal description, see D.1)

6. **Test Stage**

For the testing, I conducted it on Klaryce (see appendix D.1), a fellow year 1 accountancy student (AF 2201). While there seems to have been an issue with the recording, I can account for most of what she had said throughout the video. Outside of praising my drawing skills, she mentioned how she liked that it had multiple different functions such as being able to see the availability of seats, and a menu button. Aside from that, she asked me was about how my app would help tell when people leave the canteens (which was my fault for not explaining it). besides that, she asked me about whether I can add a way to reserve a seat without being there.

She also mentioned that it might get costly so perhaps we can make it so that only the canteens that are often frequented by the students (koufu) will get the reservation devices, while those other ones without many visitors will not have any.

7. **Conclusion**

The final innovation is essentially an app that helps people reserve seats, enter/exit the canteens, and uses that information to create a guide for people to help them decide about where to go, plus this app has extra information that guides people to other

places to eat and “attractions” within our campus. All in all, this would greatly help our freshmen in figuring out **what to do**, **where to go** and **what they can do** during their mealtime experience in nyp, and also help give extra information to everyone else in general as it helps teachers and other students as much as the freshmen as the data gathered can be quantified and used for future surveys, deciding when and where to perform surveys, using the data to do research or projects, and etc. for the vendors, those at koufu might experience a drop in income however it also can experience a drop in stress and workload, as the possible thought of messing up and wasting the time of a long que of people might not be very nice for them, and the vendors at the less populated canteens can also get more business from this as well. This same exact thing also affects the janitors who are cleaning the crockery, those at highly populated canteens will experience reduced workload and thus stress (especially since most are elderly) and those at the less populated areas might have previously felt useless or as though they aren’t doing their job, or only stuck to simply cleaning the floors during lunch time, they might get to try a newer varied job, where they can not only clean the floors but to prevent boredom, they can also clean the crockery.

At the end of the day, something I can learn from the whole experience is that us humans who share similar environments, also share similar issues and wants, and that was something I didn’t think was possible until now as I have always believed in every human being different form one another because we all have different personalities and families, backgrounds, and lives in general, just because we are in the same place does not make us that similar, well it turned out to be somewhat of the truth, despite the way everyone spoke or form they took, they spoke of similar issues as similar people coming to Nanyang polytechnic.

Total Word Count: 2416 :D

APPENDIX A: Darren (year 1)
A.1

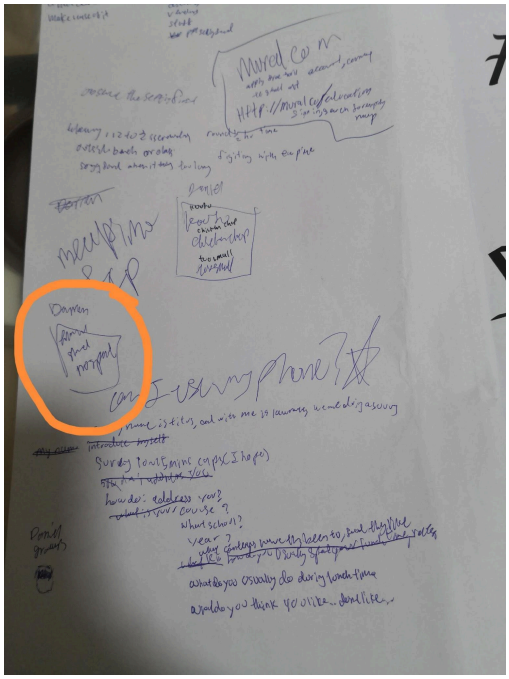
…
Me: wait you normally go to koufu to eat?

Darren: yea

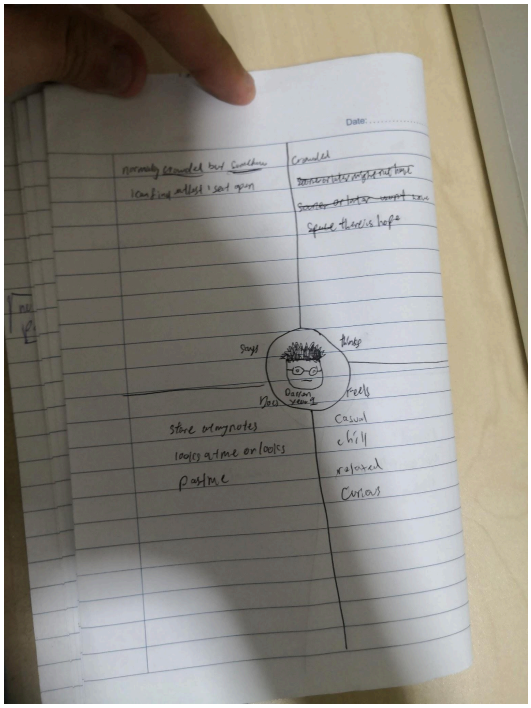
Me: isn't there like no space in there?

Darren: yea its really crowded but like somehow when I go in there, I normally can find at least 1 seat open.
…

A.2



A.3



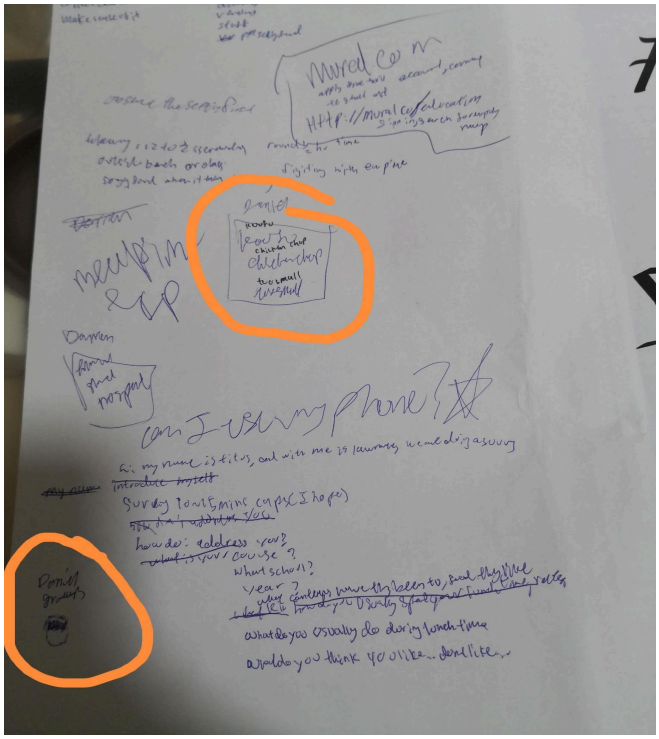
(there was no recording of the conversation, nor pictures of proof)

APPENDIX B: Daniel (year 4, graduated already)
B.1

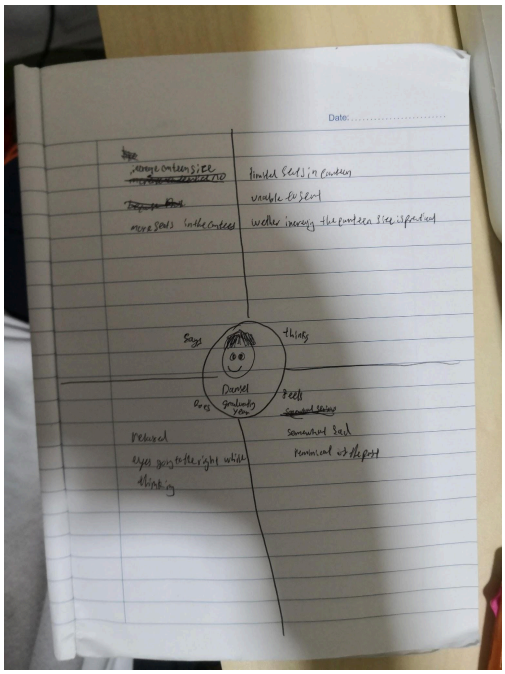
…
Me: what do you think you would like to change if you had the power to change any one thing about the canteens?

Daniel: uhmm, I can't say something about increasing the canteen size, right? Hahahaha because like I think that the canteens are too small, too many people, not enough seats, oh then maybe can increase number of seats?
…..

B.2



B.3

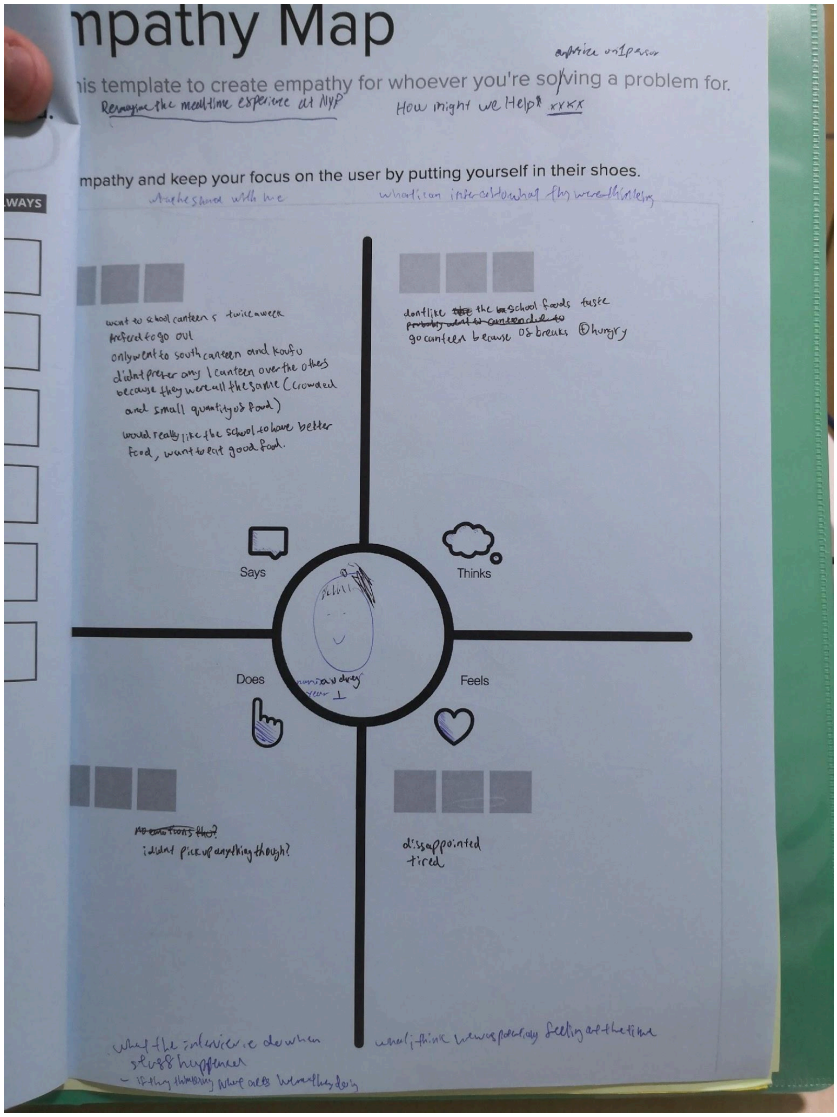


(there was no recording of the conversation, nor pictures of proof)

APPENDIX C: Audrey (year 1 motion graphics)
C.1

https://youtu.be/xyb2PWkgbvQ

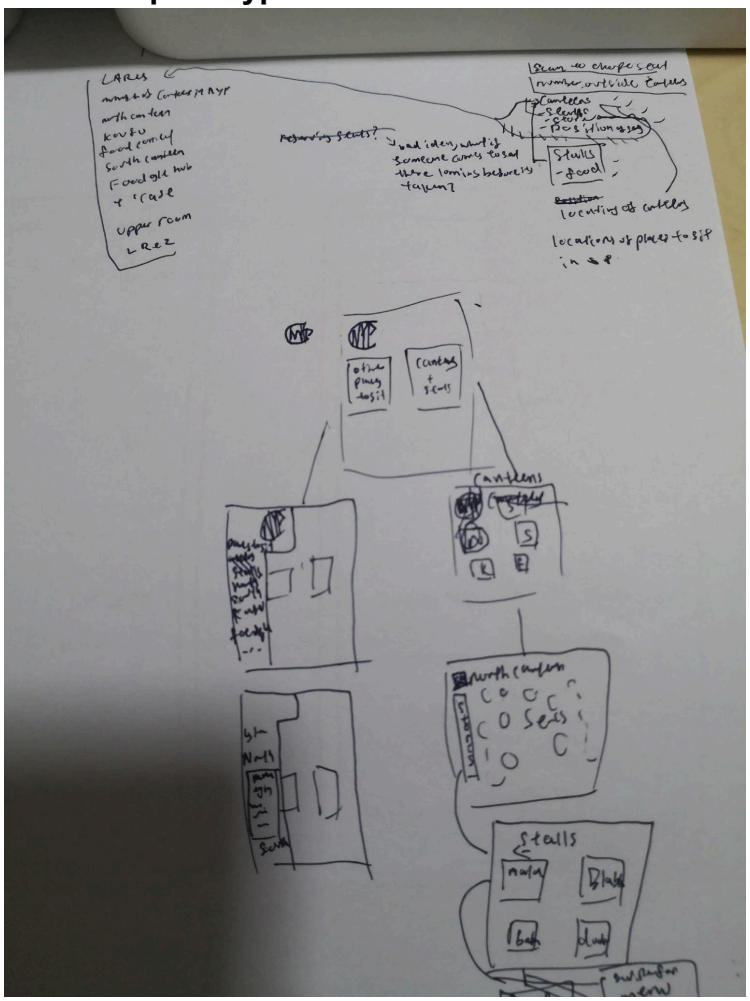
C.2



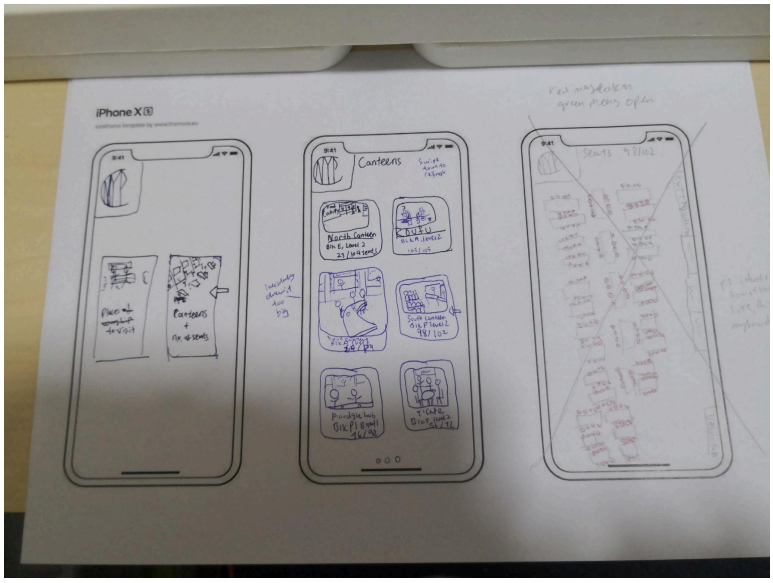
APPENDIX D: Klaryce (year 1 accountancy and finance)
D.1
https://youtu.be/s-IJU4eK0Lg

APPENDIX E: my idea written down

E.1 initial prototype idea



E.2 prototype part 1 (after removing stalls and stall menus)



(please ignore the x mark)

E.3 prototype part 2

