

Bachelor of Design (Hons) in Creative Media

PRJ62204 MINOR PROJECT

Project Tracking Document

Group and Project Name:

LILY DOLL (Group 6) CLIENT - AIDA

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Link to Group MIRO:

https://miro.com/app/board/uXjVMWJiGEc=?share_link_id=811049237142

Link to Gantt Chart:

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DEFINING THE CHALLENGE:

(To be filled after the empathy stage has been completed)

We encountered several challenges during the empathy stage of our project. One such challenge involved devising comprehensive and detailed daily routines for our personas, ensuring that the traits of each persona were relatable to our intended users(target audience). Additionally, it took some time to find interviewees who could effectively validate our personas.

CREATING THE PROJECT PLAN:

What will we work to produce?

Having research and interviews to gain deep insights into their behaviours, needs, and motivations. Analyse and synthesise the data collected from the observations and interviews to help the designing process.

Design and Concept Development. Begin by conceptualising the doll's appearance, size, and features. Create sketches, renderings, or 3D models to bring your vision to life. Consider factors such as target audience, playability, and safety regulations during the design phase.

Prototype Creation (doll): Build a prototype of the doll to assess its design, functionality, and aesthetics. This can involve handcrafting a sample doll to create a preliminary version. Testing the prototype will help identify areas for improvement and refinement.

Prototype Creation (app): Create wireframes and prototypes to visualise the app's structure and user interface. Focus on designing a simple and intuitive layout that allows users to easily navigate and generate reports.

Develop marketing materials to promote Lily Doll and communicate their value to the target market by referring to the user journey map. This includes creating physical posters, social media graphics, and packaging that effectively convey the benefits and features of our offering.

Clothing and Accessories: Design clothing and accessories that complement the doll's aesthetic and target audience. Consider factors such as style, ease of dressing, and safety standards, especially the choking hazard. Manufacture or source the clothing and accessories, and ensure they fit properly

on the doll.

What constraints will we need to manage?

1. **Size of The Doll:** Ensure that the doll is lightweight and easy to carry for the parents/relatives/specialist. It should be small enough for a child to hold and manipulate comfortably.
2. **Gender-Neutral Appearance:** Create a doll that is suitable for sex education learning, consider making it gender-neutral. This approach helps to promote inclusivity and avoids reinforcing gender stereotypes.
3. **Soft and Safe Materials:** Ensure that the doll is made from soft and hypoallergenic materials to provide a comfortable tactile experience. Avoid any potential choking hazards.
4. **Packaging:** Create attractive and informative packaging for the dolls. Include relevant information, such as age recommendations, care instructions, and branding.
5. **Sensors Placement:** Incorporate touch sensors in targeted parts of the doll's body. the right placement detects when the doll is being touched or hugged, allowing for interactive responses to the apps.
6. **Roleplay:** ASD Childrens accepted to play with Lily Doll. Incorporate visual cues and symbols on the doll to facilitate communication. For example,create a list of characters with different personalities.
7. **Motor learning Skills:** ASD children may have sensory sensitivities, so consider adding sensory-friendly features like textures, fidget elements, and calming colours towards the clothing. Include detachable accessories that can be easily added or removed. This allows for customization and enhances the child's engagement and creativity.
8. **Collaboration with Computer Science:** It is crucial to collaborate and align space/meeting with Science computer in the field of sex education and ASD when designing such a doll.
9. **Simplified and Clear App Features:** Create the app wireframe and design simple. Plus, avoid overwhelming details. Need to ensure a visually appealing and user-friendly interface that aligns with the target audience's needs.
10. **Research and Interviewing:** Their insights and feedback can provide valuable guidance for creating an effective and inclusive learning tool. It is important to continually iterate and refine the design based on feedback from parents, educators, and experts/specialists to ensure it meets the needs of our target market.
11. **Marketing Material:** Establish a strong brand identity for the Lily Doll. This consistency will help create recognition and build trust among the target audience.consistency in branding, compelling messaging, and visually appealing design.

What measures and indicators will help us know our ideas are successful?

1. **Feedback and Satisfaction:** Collect user feedback through online reviews. Positive feedback and high satisfaction suggest that our ideas are resonating with our target market

and meeting their needs.

2. **User Engagement with The App:** Monitor metrics such as user activity and time spent on the app. Higher user engagement indicates that our app ideas are capturing and retaining users' attention.
3. **Social Media Growth:** Evaluate the viewers by targeting the percentage reached. Monitor the growth rates to understand how quickly our ideas are gaining attraction.
4. **Competition Analysis:** Monitor our competitors to gauge how well our ideas are performing in comparison. Track market share, customer satisfaction ratings, or product/service reviews of your competitors.
5. **Long-Term Impact and Sustainability:** Assess the long-term impact and sustainability of Lily Doll and the app usage.

THE PROJECT BRIEF:

[Write up a short "brief" that clarifies the challenge you'd like to address. Write it as if you were handing it to someone else to design with. Capture thoughts on why this is a problem and what the opportunity for design will be for your group]

The objective of this project is to create a comprehensive brand identity for the "Lily Doll" as part of the Lily Project by AIDA. The primary purpose of the Lily Doll is to provide children with Autism Spectrum Disorder (ASD) with comprehensive sex education. Additionally, the doll incorporates various sensors to analyze the frequency of touches and squeezes, allowing for the examination of repetitive behaviours and levels of anxiety in children. These sensors are embedded within the doll itself. Parents are provided with access to educational videos for children through the Lily Doll application. Moreover, they can monitor and review reports on the frequency of touches and squeezes recorded by the doll.

This task includes designing the dolls, as well as developing the logo, packaging, posters, advertisements and smart phone app. The target audience for this project encompasses children with ASD, their parents, and specialists who work with children with ASD.

When designing the doll, it is important to ensure that it does not imply any specific gender. Additionally, it should be of an appropriate size for children to easily carry around. The doll's clothing and any accompanying items must be easy for children to care for and safe, ensuring they do not pose a choking hazard. The overall design direction should convey a sense of friendliness, cuteness, and togetherness. Moreover, it should have a lasting impact on both adults and children.

CHALLENGE ANALYSIS:

[Capture all the assumptions and questions]

What do we know in general?

In general, we know that sex education is one of the learning module concerns that we were facing for ASD Children. They have to learn about it, so that they have the knowledge about the it and have the power to protect themselves. Besides, we also observe it is very important to find a good and effective way to educate them about the sex education. By using the learning tools, ASD children will have better understanding on the sex education such as the "no touch point" and so on. But these issue are always begin ignore by people.

A learning tools is a must to assist parent to educate ASD children in a effective appropriate ways. Not only parent/ relatives that need learning tool support but the specialist also need the learning tool for ASD children.

In conclusion, it is important to let ASD children learn about sex education, but there no learning tools in the market that teach ASD children about the sex education.

What do we believe we already know about this challenge?

The challenges that would be faced is how do we create a doll that can educate sex education for the ASD kids, how do we relate the sensors placement in the doll to collect the data and how to make the doll more attractive.

What would we like to learn more about? (details about the system, customer journey)

We would like to learn more about the best learning method for the ASD children, how can a doll teach ASD children sex-education and what is the function that need to put in the mobile app.

THE TARGET AUDIENCE:

[Who will you be designing for? Consider the core audience and extended audience]

Specialist, Parents

EMPATHY:

"Empathy is at the heart of design. Without the understanding of what others see, feel, and experience, design is a pointless task." Tim Brown, IDEO

Who should we talk to: *[Who specifically do we want to talk to and learn from? Create detailed descriptions for at least 3 different users or sources of inspiration. Be sure to cover a variety of gender, experience, ethnicity, etc.]*

1. Persona 1: Specialist - Dr. Rohan [Represented by interviewee Ms Beatrice]

Bio

Dr. Rohan is a Developmental Paediatrician with 28 years of experience who helps in diagnosing and treating children with different developmental disorders like autism. Throughout his career, he has noticed the development of how people treat special needs children and hasn't seen that much progress compared to other disorders. There are still a lot of misconceptions towards autism and because of a lack of teaching tools have been made and also a lack of research conducted regarding educating young children with autism. Dr. Rohan would like to see more of these in the future.

Frustrations

- People's view that children with Autism can not be educated on matters.
- Not a lot of tools made to help guardians/teachers educate the children.
- Limited research conducted towards the education of Autistic kids.

Goals

- Help children diagnosed with autism and other disorders to live a normal life as possible or minimise impact of disorders of development.
- Maintain the developmental and emotional well being of all children and their families.
- Spread awareness and break myths regarding Autism Spectrum Disorder.

2. Persona 2: Parent - Jenny Aslina

Bio

Jenny is a mother of three children, each of her children are 10 years old, 8 years old and 3 years old. Jenny wakes up at 6:00 AM to fix breakfast and wakes the rest of the family by 6:30 AM. She goes to work at her restaurant by 7:30 AM, before Lia- who is diagnosed with ASD- and her younger brother leave for school. Her husband stays home to take care of the youngest child until Jenny comes home. Lia and her younger brother return home by 4:30 PM. Lia prefers to use a few hours after school to indulge in her hobbies, so Jenny's husband doesn't want to interrupt her. Jenny comes home at 6:00 PM and takes turns to care for the restaurant with her husband. She wants to spend more of her free time giving Lia attention, but on top of having to do house chores until late night, she's worried it will take away the attention from her other children.

Frustrations

- Struggles to communicate with her autistic child.
- Can't find enough activities or support for autistic children.
- Not confident about how to take an eye-level approach to proper sex education for her child with autism before her encounter with puberty.

Goals

- Provide a good education environment for children.
- Setting an independent living routine for her child with ASD.
- Spend quality time with family.

3. Persona 3: Relative - Kamarul Hafidz bin Ismail [Represented by interviewee Nik Nadia]

Bio

Kamarul is 25 years old who works as an electrical engineer with 2 years of experience. He has a younger cousin who was diagnosed with ASD. Every weekend in the late afternoon after his cousin arrives home from school, Kamarul will help to babysit him because his cousin's parents are very busy. Throughout his experience in babysitting with his cousin, only recently his cousin constantly ask questions related to sex education. Although he is willing to help, he still lacks knowledge on how to teach his cousin about sex education. In advance, he also doesn't know how to communicate with his cousin in a proper way. He's very worried about the level of awareness and the education that his younger cousin has. He needs to find a way in solving this problem within his budget.

Frustrations

- Annoyed with his younger siblings' behaviours.
- Lack of knowledge in sex education and does not find a proper way to educate his sibling about sex education.

- Do not have the tools to help his younger sibling to improve his social skills.

Goals

- Take good care of his cousin.
- Encourage his younger sister to improve her communication skill.
- Help to educate his siblings about safety and sex education.

Build a Question Guide: INTERVIEWING

[What do we want to learn to better understand the challenge at hand?

What are we hoping to understand about people's motivations and frustrations?

What do we want to learn about their activities?

As we are interviewing, capturing what we see and hear during a field visit, capture direct quotes.

Separate our observations from our interpretations so that we know what we saw and what we thought it meant for that person].

START WITH AN OVERVIEW:

1. Describe your relationship with an ASD person that you know of.
2. Do you know when the ASD person was diagnosed?
3. How was your experience in communicating/interacting with the ASD person?
4. In your observation, does the ASD person have trouble learning?
5. Did the ASD person receive sex education?
6. Are there any difficulties in teaching the ASD person about sex?
7. Do you think there is a better way in providing sex education to ASD children/teens?
8. Do you think a doll will help in educating ASD children?
9. What features would you like the doll to have that helps in communicating/teaching ASD children?

DIVE DEEPER:

1. What is your relationship with the ASD person that you know of?
2. What was the age of the ASD person when diagnosed?
3. Do you face any difficulties in communicating or interacting with the ASD person? Please explain further.
4. What kind of support would you prefer have in order to communicate or interact with the ASD person?
5. Did the ASD person faced any education or learning challenges? Please explain.
6. At what age did the ASD person learn about sex education, and how was it taught to them?
7. Have the ASD person asked you about sex or anything related to sexuality? Or have he/she been curious?
8. What is the hardest part in explaining about sexuality and sexual relationships to an ASD teen?
9. How should the children with autism be taught about boundaries, such as no touch zones, appropriate and inappropriate touching?
10. What about the social and emotional part of a relationship? What signs should the teen look out for? Or to give out or show?
11. How would you teach the ASD teen about consent? What are the words, should the teen use or listen out for?

	12. What sex education or sexual relationship topics are the priority to be taught? Please elaborate. 13. Why do you think a play doll would be a good approach to teach ASD children about sex education? Please elaborate. 14. If you were to have a doll for educating/communicating with ASD children, what would be the most important feature to have in the play doll? AIDA Specific 15. We have set the target audience of the Lily Doll Project as 8-12 years old. From your experience, do you believe we are starting too early or too late? Please explain. 16. Would AIDA be able to provide the teaching or support content for us to use for the Lily Doll interactive design? If yes, what are the these types of content? (text, visuals, videos, audio recordings etc) and when could we have access to them? 17. The Lily Doll is supposedly linked to a phone app. What kind of features would you wish to have on the app the would work seamlessly with the doll in educating the teen or child about sex education? Could you walk us through the user experience?
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Build a Question Guide: OBSERVING

[What are we looking to learn in this observation? Capture themes and questions that we want to make sure we get to in the site visit!]

<u>MAKE SURE TO SEE:</u> • Their body language • Their tone of voice • The state of their room and surrounding • Their condition and appearance • Their facial expression • Their energy level • Their posture • Eye contact	<u>MAKE SURE TO DO:</u> • Get interviewees' consent to record their interview. • Greet and engage in small talks with the interviewees to create a pleasant environment. • Take note of unusual cues while interviewees are answering our questions. • Start with asking them how they're feeling • Ask questions in a patient and respectful
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- manner to ensure the interviewees are comfortable.
- Give the interviewees the benefit of doubt.

Assigning Roles for Site Visit:

[Assign responsibilities before going to the site]

Name	Role
Siti Maisarah Binti Mohd Anuwarsani	[Interviewee 1] Interviewer [Interviewee 2] Not Present [Interviewee 3] Interviewer [Interviewee 4] Not Present [Interviewee 5] Not Present
Ivy Jee Yi Jie	[Interviewee 1] Interview Recorder [Interviewee 2] Not Present [Interviewee 3] Interview Recorder [Interviewee 4] Not Present [Interviewee 5] Not Present
Min Ah Kim	[Interviewee 1] Observer [Interviewee 2] Not Present [Interviewee 3] Not Present [Interviewee 4] Not Present [Interviewee 5] Observer
Catherine Temba	[Interviewee 1] Observer [Interviewee 2] Not Present [Interviewee 3] Not Present [Interviewee 4] Not Present [Interviewee 5] Interviewer
Shofwa Alyadiena	[Interviewee 1] Note Taker [Interviewee 2] Not Present [Interviewee 3] Note Taker [Interviewee 4] Note Taker [Interviewee 5] Note Taker
Chai Yi Xuan	[Interviewee 1] Note Taker [Interviewee 2] Interviewer [Interviewee 3] Note Taker [Interviewee 4] Interviewer [Interviewee 5] Not Present

INTERVIEWEE 1: Ms Beatrice

#	What was said?	What is interpreted
1.	I am autistic myself	Ms Beatrice is autistic.
2.	Very popular "trend" right now is people seeking for diagnosis because more people are diagnosed at old age. 34-40.	Ms Beatrice was diagnosed when she was 34. Awareness about autism and it's many forms have been spreading; especially for women, because there isn't enough data on them, they tend to be diagnosed at an older age.
3.	I have communication problems every day. Most of the time especially adults trying to communicate with children. Children are naive until they learn. Sometimes the problem is because they don't speak, they [others] have this mentality that they don't speak meaning they don't think but that's not true. The other project that we're currently attempting is AAC where the users can form a sentence with an application. The understanding of communication is that it is not limited to speaking.	Interviewee has communication problems. Much like her, the children she works with are non-verbal, and people assume it means they don't think.
4.	Alternative communication methods. Not relying on just speech, pictures universal design, or making things. And support sometimes from the person who asks- sometimes you don't respond to lecturers and they can help by asking you to write it down.	People need to be more patient and accommodating, especially towards autistic kids who take a longer time to think or need an alternative method of communication.
5.	ASD person face education and learning challenges because the education system that we have is based on verbal learning like memorization. But people with ASD or other mental disorders like ADHD or dyslexia would learn better in alternate ways like spinning around or watching etc. and interest plays a really strong part. If you don't have interest the motivation will disappear completely.	To catch the attention of ASD children, it's best to try and be interesting. With interest, only then will they be focused enough to learn. Unfortunately as mentioned earlier, verbal learning being the mainly used in education, it's difficult for ASD kids to follow along.
11 a.	There's no specific sex education system for ASD, and the existing system [in Malaysia] is filled with Islamic bias. Autistic kids have sensory problems and want to explore their bodies. Start sex education at 3 years old because there are vulnerable to abuse.	The current learning standards hinder sexual education with the reason that the topic is treated as taboo. The children want to explore their bodies, and unless educated properly

		as early as 3 years old, they might attempt to explore their bodies in public spaces, unaware of the effects.
12.	Sexuality is society made up, there is a difference between gender and sex. When autistic person looks at the world, they look at things objectively (don't see gender/sex). They don't understand social cues and it is hard for them to empathise with others' emotions and expressions.	Autistic people look at things objectively and tend to miss out on social cues as a result. It's harder for them to empathise with others' emotions.
13.	ASD teens can be taught them by using tactile teaching. Can teach them by experience. Autistic children would not be able to understand a lecture if it doesn't relate to them, that's what the doll is there to help with.	ASD children are less likely to understand subjects that doesn't relate to them. The doll is there to help with comfort and improves empathetic relationships with another person.
10.	Social and emotional part of relationship are very hard for ASD teen. There are two perspectives on this. You have those who have visible autistic traits when we meet people like that people might assume they don't have a love life etc because society has stigmatized them. They can actually live an independent life. Its about respecting and understanding that people have free will. They may not think. I find it very difficult to understand what people are saying. It's harder for me to understand or learn emotions. That's when the abuse comes in, by manipulating that emotional weakness or misunderstanding.	Because of social stigmas, ASP teens tend to be treated as lesser and assumed to be unable to live independently. The vulnerability lies in the autistic person's social communication [not understanding social cues]. An abuser could manipulate this misunderstanding to benefit themselves.
11.	The most important thing is to be able to build a connection so that if ASD teen know they're being harmed, you don't want them to keep it inside them. They need someone to provide them with something to compare to see what is or what isn't normal. Consent can only come when the person is aware. You can't give consent if they don't know what they're consenting to. Self-confidence issues are amplified for autistic people. We need to directly tell them about sex.	Building a connection is easily one of the most important parts. Autistic people tend to keep things to themselves, and only if a strong bond is created they would open up. They need to be provided comparisons to understand what is and isn't normal in a relationship.
13.	Play doll would be a good approach to teaching ASD children about sex education because it's safe, tactile, sensory, and modular. Something they can carry around and is generally friendly to children. Dolls are proven to be therapeutic. Lily doll is built upon the concept of trauma dolls. Dolls are neutral. You can tell stories to them and they are human. There's a lot of data we can get from the child's interaction with the dolls.	Dolls are safe, tactile, sensory, and modular. They're proven to be therapeutic, especially since they have a humane feeling to them that makes it easy to talk to. There are a lot of data to obtain from a child's interaction with the dolls, whether it's rough or softly or spoken to with new or harmful words, we can understand if the environment

		they grow around is healthy.
14.	The feature of the play doll must be long limbs, squeeze head and modular. Not too big and not too loud. Something that can be integrated into daily life.	Something that doesn't catch too much attention from other children but helps the child calm down.
15.	8-12 years old are too late. Because they learn very differently. It's best to start earlier. 8-12 is a very general age. People with autism have different perspectives so we have to start much earlier. 3-4 years old is a better start. 3 is said to be the golden year.	3-4 year old kids are the best time to start learning sex education.
17.	The features that would add in the lily doll phone app is crisis intervention. And continuous learning. Continuous and reinforcing. With autistic children sometimes they need lots of repetition. Like squeezing too hard or too long, your phone might need to send a signal to the guardian etc.	Crisis intervention- if the doll is squeezed too hard or too long, it should alert the application and send signals to the child's guardian.

INTERVIEWEE 2: Tay Kai Xin

#	What was said?	What is interpreted
7.	I have an autistic cousin, but I also teach a class of autistic kids.	Relative and teacher of ASD children
8.	I don't know when my cousin was diagnosed, but the children in my class range from 6 to 12 years old.	6-12 years old
9.	Yes, because the things he likes to talk about are not something I know very well or relate with. I also have trouble answering his thoughts because he has his own thoughts. Also have to answer in a specific way so it does not trigger him.	Troubles communicating with the ASD person they know is more because they have different interests and thought process.
10.	Usually we just communicate through talking because my cousin's okay with it.	Her cousin has no immediate problems talking verbally to her.
11.	My cousin does not have problems learning because he is on the high-functioning spectrum. But the kids I teach lean towards low-functioning, and need us to repeat things many times for them to remember and understand.	Her cousin has no problems learning, but low-functioning autistic children need repetition during teaching.

11. a	I'm not sure if the school has taught him about sex education. He is also admitted to a regular school.	The cousin's knowledge on sex is unknown.
11. b	Currently in the centre I'm working at, we are trying to teach the kids about boundaries, no-touch zones, and how to react to the situation. Because sometimes when they are touched and they feel uncomfortable, they throw a tantrum or just keep silent. So we want to teach them how to react properly when someone does something bad to them. We are working with the parents to address the concern.	They are directly taught, not knowing if they're curious. They are being taught by collaborating with parents about how to react properly in situations.
12.	Yes, it is hard. It's because even if they know what they should do in the situation, it doesn't mean they will do it when it happens. When I ask my students where they should not let a stranger touch, they will respond with the correct answer. But if it happens to them, they might not express themselves properly. That's why we try to repeatedly tell them what to do and use different methods to teach like visuals, videos and role-playing. About role-playing, we do this with higher-functioning kids. I think it is a very good way to get them to understand what they learn. We act out the situation in class with the students, and we ask them what they should and act it out as well.	The most difficult part is making sure that they will take what they learned into practice if it happens.
13.	To add on to what I say earlier, we show them visual ads with stories related to our lessons. One example is a video about a girl who got touched by a stranger, and the girl tells the teacher and parents about it. The video encourages the children to express themselves to others and in the proper way. Some of them are visual learners so visual ads are very important. Talking to them will make it hard for them to understand, while showing them will help them understand easier.	The most used method is visual story telling or other visual methods of teaching, as it seems to interest them more as well as making it easier to understand.
14.	Normally, we separate the teaching of emotional and social parts of the relationship. We start with emotions and ask them to identify their emotions in a scenario. Once they understand, we help them sort out between good emotions and bad emotions. Then, we teach them how to express themselves properly if they are experiencing a bad emotion. If they don't understand their emotions, it will be hard to teach anything else. Sometimes when they experience a strong bad emotion., it also takes time for them to process it before they can take proper actions.	They need to understand mostly the proper reaction to situations.
15.	For now, I have not come across a situation as such, so I don't think I can add a lot. To repeat, they can understand the theory of boundaries, but they might not react proper when the time comes. Some might not even process their situation and things	Unable to add much, but usually they can understand how to set boundaries, just not sure if they will do it.

	might happen before they react. We can protect them, but alone it might be difficult for them to process the information in their brains. This is a big concern for both teachers and parents.	
16.	In my opinion, definitely boundaries. Because if they don't know their boundaries, then things might happen. If they know what is happening to them, then they can act accordingly and avoid problems. So when it comes to their puberty, sex education, and personal space, personal space is the most important. If they know what personal space is, and know how to respect it, they will not fall victim too easily. We can't control puberty and only teach about sex theoretically. So personal space and boundaries will be the best way to first approach it.	Boundaries are the most important thing to learn first.
17.	I would say yes. Like visual ads, we can point at the doll and tell them about the body parts and teach them where to touch. This is also a good opportunity to tell them that they cannot let others touch or touch others at private areas. I think the doll as a learning approach is a good idea.	They will help because the play dolls offer visual teaching, which works best for autistic children.
18.	I could say different sensory materials. Some of them have sensory issues and low motor skills, and different textures will help stimulate their senses. My suggestions are sponge, beans, rough materials, buttons— anything different from the doll body. It's a good idea to have clothes with different materials too so they can choose a favourite and teach them how to change the clothes. It will get them to be more interested and play with the doll a little longer. Different sets of clothes also help because we can teach them appropriate clothing as well.	Different textures in the doll can help stimulate senses; like sponge, beans, buttons etc. but mostly on the clothes rather than the base doll.
19.	My cousin doesn't play with dolls. But it depends on kids. My students are usually more interested in seeing something new rather than seeing it as a human or non-human doll.	It depends on the kids.
20.	I didn't observe enough to know my cousin's favourite colours. But in general, the colour preferences can change by their mood. If they are happy, they will prefer bright colours and vice versa. When a kid likes a colour, they will be obsessed with it and buy many things in that colour. As a teacher, I will challenge them and try to make them more accepting of different colours. My goal is to make them not too rigid and stuck in their habits.	The mood determines what colour they enjoy more. They usually have a favourite for a while, but teaching them to be open minded of other colours is good.
21.	I think the #2 and the #5 dolls will be the more interesting dolls. The #2 can stand and sit, make it more flexible and the #5 has the little horns on the head. The kids will be curious about it and will ask me questions about the doll. The other designs are not too interesting to them, so they will just play for a few minutes before throwing them away (bored of playing).	They might prefer new and exciting features rather than plain dolls. They are naturally curious and would spend more time with a doll that are weird.

INTERVIEWEE 3: Nik Nadia

NO.	What was said?	What is interpreted
9.	As they were first diagnosed, for the older sister, the first that made me took her to the doctor is because at that age 2 and half years old, even like at 1 year old kids should be able to say a few words, but it seem like she couldn't say much at that time, and by the time she was 2 and half years old, she could read and recognize alphabet and some words but there were no were no communication at all. It means that she couldn't even call me mama, no mama, no daddy, whenever she wanted milk she would just cry. So, it is really zero communication, but when I point to things and ask what things are, the daughter could actually point out and speak what it is. At that time the only communication was through expressed emotion; laughing, crying. Non verbal communication until she was around 3. The therapy really helps. But she could only tell stories about what had happened to her by the age of 7 [like about what happened at school etc]. If she asks like "do you want to eat?" she will be able to answer directly with yes or no. The youngest sister is much more verbal. She started verbal communication earlier. But the level of communication was still lower / slower than other kids. For now, the eldest is 14 years old. The complications are more about her being a teenager rather than directly related to her autism. She is able to verbally communicate and ask hard questions. The 12 years old, she has more anxiety than the older sister. She can tell stories very well. She repeats word. Shes very picky with what she wants to tell her. So she's still hesitant to tell me because she's embarrassed with the issues bothering her. Those are the kind of communication. It's different and cant really be generalized for other autistic kids since it's all different for each children.It's easier for them to understand or communicate non verbally	ASD children need to be diagnosed early so they can be better counselled.
10.	Once we have the option of text messaging, it seems that it's entirely preferred or needed for them instead. They just prefer other ways of communication that isnt verbally.	ASD children will more prefer in a non-verbal communication instead of verbal communication.
11.	ASD person faced education or learning challenges because when they are in school like if someone is clever they're mostly clever. For ASD kids it's almost like they can dovery well in a certain subjects but terrible with other subjects. We have to emphasize that they still have strength in certain subjects. Theres also issues with focus in class like the younger still has issues with focusing but the 14 year old is doing better regarding focus. They would be very interested in one subject and not with the others. If they're not interested it's very hard for them to cope with it. Of course there's sensory issues that impacts them in class. Like the eldest, she's very sensitive with loud noises. It affects her focus when other kids are too noisy around her and she gets very agitated. Social-wise, especially when they become teens, it's difficult for them to be	ASD children are different from other children in the learning mode. ASD children will have strength in certain subject but will be not interest in some other subject. It is hard for them to cope this kind of problem.

	friends.	
11.a	The sex education was taught to the elder daughter when she was 7 years old. I told her not to let boys touch her. She understood but she became paranoid, and thought it's about any kind of touching, and she would scream if a boy touched her even just for play. Being autistic, there's more boys than girls. So in that time when she was being sent to a social skill class for kids age 7, it was full of men. She became anxious and agitated in class. We only realized it was very bad when her program finished, she had a fever to avoid extra classes. After she told the class. One of the topics were girls and humans. The instructor actually waited for her at the exit and said that it's better to find a psychologist for her. The fever was actually her body responding to her not wanting to be around boys [reasons said]. After seeing psychologists, who talked her through about her reaction and how it would end up making her be the target. She also readed about the period. She feel very panic and scare about it and need to talk to the Phycologies and talk about how to take care about herself. She have her first period in age 11. The eldest sister also asked about transgenders at 9. At the age of 13 explored her sexuality. When they talk about something that means they already read a lot about it and talked about it. There was one question that she asked, "if i don't like anyone, does it mean im straight?" things like those about sexual orientation.	The ASD children has been taught about the sexuality such as the safe touch, period and transgenders.
11.b	For the younger sister, despite being autistic shes much more friendly and bubbly. She would love to hug everyone and it's stressed to her that not everybody is trustworthy. There was her uncle who likes hugging her. She would hug her grandmother and aunts. When we want to leave the house she would hug every person and the boundary has to be said explicitly and directly. We have to explain to her that there's a difference between "uncle" as in relatives and "uncle" as in the Husband's friend. She started to learn period at age 9 and age 10 started period.	The ASD children has been taught about the sexuality such as the period and safe person.
12.	The hardest part in explaining about the sexuality and sexual relationships to an ASD teen is don't expect them to start talking about it, you have to show them that it's alright. And we have to explain that they might need time to answer the question and have to tell the kid that she has to look for it at well.	ASD teen will not explaining the sexuality and sexual strightly
13.	Teach ASD teen using role play will be a better way about boundaries, such as no touch zones, appropriate and inappropriate touching. Video will be helpful too but it is more difficult. It's difficult to teach because the method of teaching needs to be personalised. Unfortunately not only does it take time for the autistic kids to learn, they have specific and different needs of learning that cant conform to normal curriculans. It takes a few months just to understand a	Role play is a better way to teach ASD teen about the boundaries compare to video and others. Besides, it need a lot of time for ASD person to understand the concept of the boundaries.

	concept.	
14.	Bonding between parents and the children are very important. We have to look back when we were teenagers, we didn't share much with our parents because if our bonding isn't strong we are not confident enough to share our feelings. We have to emphasise that. No matter if they are verbal or non verbal autistic kids, if they have a tablet to communicate. The point is its important to understand about if they're comfortable to share or not.	Bonding between parents and the children are the key in the social and emotional part of a relationship.
16.	The sex education or sexual relationship topics that should be priority to be taught is the safe touch and the person you can report.	Safe touch and the person to report is an important things that need to be included in the sex education.
17.	Play doll would be a good approach to teach ASD children about sex education because they need to be taught explicitly very clearly rather than generalised and implied meaning. And also because role play would help, rather than touching the person.	ASD Children is more easy to be teach using playdoll as it can be a role play for the ASD children.
18.	The important feature to have in the play doll is electronic components in them with less sound. If sound, my eldest daughter actually didn't like any sound from the doll. So if there is a sound, it should be able to be turned off. Doll should not be too big to be able to be carried everywhere, and can be washed. Cannot be too small. Small one easy loss. Need a GPS connected to be able to track it if its lost. Make multiple options for the dress. Different textures in certain areas for sensory input. Make sure the eyes are not easy to fall off. Have weight for them to sit down, or a loop to hang them. The hand should not be too thin.	Electronic Component: GPS, Sound have a button to turn on and turn off. Size: - 20cm -25cm height x 10cm weight. Other: Multiple option for dress. - Able to wash - Different textures in certain areas for sensory input - have weight at the bottom of the doll. - Have a loop.
19.	The preferred budget for a Lily doll must be less than 50 ringgit. If its 20 ringgit we will make people feel good to buy and not need.	The price of Lily doll must be approachable.
23.	I think ASD relatives prefer a human doll or a non-human doll is influenced by their interest. I think they dont mind and are more influenced.	The appearance for the Lily doll has to have human features.
24.	Definitely must have colour that isn't too monotone. The thing is, it also has to be a neutral colour. But they should definitely have options on the dresses. Have option from the dresses (can have different colour). Neutral colour for the body	The colour of the Lily doll it self can be neutral colour and can have different colour for the dresses.

INTERVIEWEE 4: Ms Ting Ting

No.	What was said?	What was interpreted
7.	Ms Ting Ting, 33 years old.	
8.	From my experience, the age of the ASD person is around 2 up to 20 years when diagnosed. Only focusing on younger children 2-10.	ASD person diagnosed around 2-20 years old.
9.	I wouldn't say it is difficult when communicating or interacting with the ASD person, it's more like we really need to find ways to understand how to communicate with them. The most challenging moment that I had previously, maybe, is before I understand about autism, when I was in my initial practice. Not really any. Maybe for teens, i don't really have experience with this age group, so in terms of communicating with autistic teens and adults I might not know how to interact with them.	It is hard to communicating with ASD person and have to find the ways to communicate with them.
10.	For the kind of support in order to communicate or interact with the ASD person is maybe in terms of technology part, because what I found is that visuals really help them communicatie better. It would really help us a lot in terms of visual communication tools.	Digital technology is a good way in order to communicate and interact with them.
11.	ASD person do face learning challenges when their communication or sensory needs aren't being met, like when their environment isnt supporting them or cant help them express themselves better.	ASD people find it hard to express themselves.
11a.	To be honest I don't really have experience in teaching sex educations, it all starts with teaching them about body parts with appropriate (scientific) name. Starting from 6-7 years old. 7-9 we start teaching them about privacy, like boundaries and personal space. They have problems understanding if its substituted with a different name.	We can teach ASD person about sex education by being direct and using scientific names of the body parts rather than something else. A good start would be 6-7 years old.
12.	The hardest part of explaining sexuality and sexual relationships to an ASD teen is about not having enough teaching tools to teach the lesson. The idea is more concrete for the autistic children to understand. I think for both we need that kind of content. Right now I don't have access to proper sexual education and also materials. So we really need to look for them online. Other than just body parts and inappropriate things.	It's most difficult to give sex education without enough tools to teach it. Not enough teachings exist for specifically autistic children, and it becomes difficult to filter out the proper materials.
13.	For the way to teach ASD teen about the boundaries, I feel like presenting visual is very important and a lot of demonstration. And a lot of practice. Do they need to act out, for certain topic, yes. Like when talking or interacting with others.	Visual presentation is extremely important as it catches attention effectively and becomes better absorbed as teaching material. Some topics need to be practiced and acted out in a

		type of roleplay to be better understood, especially regarding social interaction.
14.	Usually we use a lot of visual. And a lot of video modeling. The videos are about how we react in certain situations, like how to say no for example. One of the video I used before is about when to say no and how to understand when people are rejecting you in certain situations.	The method used usually is heavily visual.
15.	I think about consent is about teaching them personal boundaries and also one off he things that we can do about one group of people and other people. What are the people in their circles. Let's say outside the circles what are the things they can do with these people. There are different things you can do with people from different circles.	It's important to know that the boundaries of an individual should stay in all social circles.
16.	For lily doll. I think it would be good to use a doll for younger kids for body parts or body parts. For older kids would be for personal boundaries and also how to respect other's boundaries. And maybe use Lily doll as a representation of personal space when they're interacting with others.	It's good to use a doll to educate on the different body parts of humans.
17.	I think the play doll would be a good approach because it gives a clear or concrete representation for the teens and children about human body we can use the doll to do a lot of demonstration.	Dolls are good approaches as it gives representation for the kids about the human body and also for any roleplaying needs.
18.	The most important feature to have is that maybe when they touch the doll there is like some response in terms of sound. Depending on where they hold it. Also, it would be good if the doll can have some video related to the doll. The doll is also present in the video in an app. And also feel like maybe it can have some effect on the private part, like a different texture. Not sure if it's appropriate or not. It would be better that it can be with different clothing.	Sound response depending on where the doll is being held is one of the first more important features if possible. For application, it would be great for an educational video using the doll's characters, much like a franchise kind of deal.
19.	The budget of the lily doll can be RM 100-200 because of the quality. And its ability to have videos or so. It can be used for children. If its for accessibility part, definitely possible to make it cheaper.	Budget 100-200. Definitely need to be cheaper if accessibility is what we aim to achieve
20.	Yeah I think the features or appearance for the lily doll depends on the children on age and personal interest as well. I think it's definitely better to have more human features, more alike to a human body because they can have a clearer picture about the human body and it helps them to better relate as well.	The appearance depends on the children's preference, but a humane doll can be more effective in sex education.
21.	I feel like my students are more attracted to bright and soft colours. Or rather depends on the student. I would get a softer colour one.	Soft colours like pastel would be the best option.

22.	I feel like they would prefer. Does it include the texture or just the visual. I feel like they might be more attracted to the one on the right corner. The picture with three dolls. I'm not sure why just based on my observation. I feel like, from what I notices, they always like to have some spots where they can hold it. Things they can hold, the parts that are easy to grab. If children, I feel like medium sized are better for them. I feel like the one with the long ears are quite big. Whats the benefit of using a doll for sexual education, I feel like another thing is that its easier for us teachers to use for roleplay. For different situations, how to practice setting boundaries. Like which part is not good. It would be good to have multiple dolls. I feel like when they give them this kind of visual representation its actually less overwhelming and also easier for them to grasp the idea.	They would prefer the dolls that can be held from multiple angles not just one.
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INTERVIEWEE 5: NASOM

No.	What was said?	What was interpreted
10.	In terms of support we usually provide training and information and much more in terms of extra knowledge to the ASD person. We also give the teachers work or tasks.	Interviewee supports autistic children through funding and providing training to the teachers that take care of them.
11a.	Early ages, that's why we have early intervention program. I bet there would be none of them asking about sex.	Interviewee doesn't believe that children under 12 would be curious about sex.
15	Basically they give standard teaching based on the research, based on the program. Whatever things and research that they've done we would give them to the teachers. It's the teacher's job. They teach based off of research.	Interviewee provides support through giving information and guides for the special teachers.
16.	The dos and donts, and early stress about hygiene. They need to know or be able to be intervened about what cant and can be done.	Interviewee believes the do's and dont's of sex and hygiene is most important.
17.	I don't have a specific view. The visuals are important and it's clear what is what. The asd kids are more into the colours rather than the written. As long as its interactive. As long as theres a clear... Things they can understand.	The visuals are needed to clearly indicate body parts as learning tool. The doll would be much better as a n interactive piece.
18.	If the doll is reflecting based on the visual. Or the visual uses the doll. Make it so that the students understand more. So they get a view.	The videos and the doll should be as one learning tool.
19.	Depends on the function or effectiveness of Lily Doll with each child.	We can persuade them depending on the function and effectiveness.

20.	It depends, it's very subjective. Ourself, if we're targeting. Maximum 60 RM per doll	RM 60
21.	more towards non-human looking. Animal-looking dolls are preferred.	Non-human dolls are preferred. They are less 'boring'
22.	For dolls, bright colours: red, green, pink, etc.	Bright colours
23.	The one with ambiguous shape, the horns and long flimsy limbs.	Ambiguous shapes, grab-able limbs

OBSERVATIONS

What was seen?	What is interpreted
Interviewee Body Language • Persona 1: Sat upright • Persona 2: Relaxed • Persona 3: Animated, gesturing a lot • Persona 4: Sits straight • Persona 5: Gestures a lot, rushed.	Persona 1: Her upright posture could indicate that she appears confident and unafraid. Persona 2: She feels at ease in her surroundings. Persona 3: Persona has a habit of gesturing to emphasise her points. Persona 4: She takes the interview seriously and stays focused. Persona 5: He does not prioritize the interview.
Tone of voice • Persona 1: Talks Softly • Persona 2: Friendly, happy • Persona 3: Motherly and soft • Persona 4: Loud and quick • Persona 5: Very quickly, sometimes mumbling.	Persona 1: She is a friendly person. Persona 2: She is eager to talk and doesn't mind being interviewed. Persona 3: Her tone indicates that she is a nurturing person and cares about how she speaks to another person. Persona 4: Aside from confidence, she wants to get to the point of the matter, as shown in the way she answers most questions. Persona 5: His very quick talking speed is a product of wanting to get straight to the point as fast as possible.

Facial expression • Persona 1: Naturally • Persona 2: Mostly smiles, sometimes frown when thinking or confused • Persona 3: Always smiling at varying degrees • Persona 4: Neutral, occasionally smiles or frowns • Persona 5: Neutral, mostly more frowning	Persona 1: She was comfortable explaining to us her opinions and showing herself. Persona 2: She is an expressive person, and her thoughts sometimes show on her face Persona 3: She is an amicable and gentle person. Persona 4: She comes across as a resolute person, but she has a friendly way of speaking. Persona 5: He has other things he needs to do and does not show much emotion while being interviewed.
Energy level • Persona 1: Medium • Persona 2: Low energy but passionate • Persona 3: Relaxed but enthusiastic • Persona 4: Somewhat restless • Persona 5: Very busy, in a rush	Persona 1: She was quite excited to be able to share her opinions and explained a lot, sometimes more than needed which helped us greatly outside the questions asked. Persona 2: She is a little tired due to the time of the interview but enthusiastic in answering the questions. Persona 3: She is eager to share her experiences in raising her ASD children with us, and happy to answer questions that would help in developing Lily Doll. Persona 4: She wants to finish the interview quickly, it is indicated when she says she has another meeting after the interview. Persona 5: He is very busy and really needed the interview over quickly.
Eye contact • Persona 1: Strong eye contact • Persona 2: Constantly maintains it while talking • Persona 3: Occasionally breaks eye-contact when she takes time to answer • Persona 4: Consistent eye contact	Persona 1: Very focused on this interview. Persona 2: Comfortable in maintaining eye-contact and does not mind. Persona 3: Overall doesn't mind eye contact, but sometimes breaks it when she has to think about something for awhile. Persona 4: She is confident in responding

Persona 5: Rarely makes eye contact	towards questions. Persona 5: He is constantly looking around making sure he doesn't miss calls from other important meetings.
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DEFINING THE INSIGHTS:

[user + need + interesting learning = POV/Problem Statement]

Activity #1: Referring to the interview and observation interpretations, use keywords or a sentence to represent each point on sticky notes. Use only one sticky note per point or thought and paste all of it on the wall. Eliminate duplicates while looking for similar themes, patterns and connections. Cluster similar notes and create new labels or headings for the clusters.

- Lack of puberty and sex education resources for autistic kids
- Visuals and roleplaying tools to teach special needs kids more effectively
- Clarification of no-touch zones and boundaries
- Repetitive teaching for autistic kids to remember their lessons
- A portable companion that can help collect data of autistic kids' mental wellbeing

CREATE THE POINT OF VIEW (POV) STATEMENT *[user + need + interesting learning = POV]*

Who is the user/audience/persona? - Parents who are busy and are not available to their children at all times. - Teachers who lack resources to provide sex education to autistic students.	<u>Example:</u> _____ Caroline is a 26-year-old single mom who loves sci-fi movies.
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THE PROBLEM STATEMENT:

THE POV: Parents and teachers of autistic children want to teach kids about sex education and keep track of their mental wellbeing. They need a visual, tactile and role-playing tool and teaching resources for autistic children, while monitoring children's mental health and education when they are not available.

From the POV Problem Statement, create a few 'How might we?' topics for the Ideation Stage

1. How might we create a learning tool that is visual, tactile, and promotes role-playing?
2. How might we provide sex education resources to teachers of autistic children?
3. How might we create a companion for autistic children that collects data of their mental wellbeing while guardians/caretakers are busy?

IDEATION:

[The reality check on value, needs, challenges, barriers]

Defer Judgement, Encourage Wild Ideas, Build on the ideas of others, Stay focused on topic, One conversation at a time, Be visual, Go for quantity!

For each of the 'How might we?' topics, brainstorm for the potential solution and list it down.

How might we create a cheap learning tool that is visual, tactile, and promotes role-playing so that ASD kids have easy access to sex education?	1. Use a doll as a base for providing the tactile and role-playing aspect, and supplementary educational videos for visual learning. 2. Create a world using the dolls for further role-playing and imagining scenarios.
How might we create resources for guardians and special teachers of autistic children so that they can provide sex education and stress relief to autistic children in their growing ages?	1. Create an application in which the lessons can be packed into a video for the child to learn through visuals.
How might we create a companion for autistic children that collects data of their mental wellbeing while guardians/caretakers are busy?	1. Add a sensor that may detect the child's touch. 2. Using a different sensor to collect data on child's squeezes that may signal stress and disturbances. 3. Have the sensor send signals to an application that can be held by an adult to receive information of the child's mental well-being and activity.

From the list above, conduct a reality check.

The Reality Check

Values for the target audience:

Special Teachers of Autistic Children

- Gain a new method to teach autistic children about sex education topics.
- Provide immersive learning for the autistic children to explore on their own in a safe space.

Guardians of Autistic Children

- Monitor the autistic child's mental health from a remote distance.
- Be able to provide the autistic child a temporary replacement while unable to be present physically in the child's daily life.

What needs are addressed:

- To provide sex education and stress relief to autistic children in their growing ages.
- To learn sex education through visual, tactile learning and role-playing.

Challenges faced:

- Most guardian and special teachers of autistic children don't have enough resources and data.

Barriers that opposes:

- Technical limitations.
- Financial costs for material.
- Videos need to be provided by specialists, constant communication is needed.
- Size limitations to include the technical bits while still being holdable by a child's hand.

DESCRIBE THE IDEA:

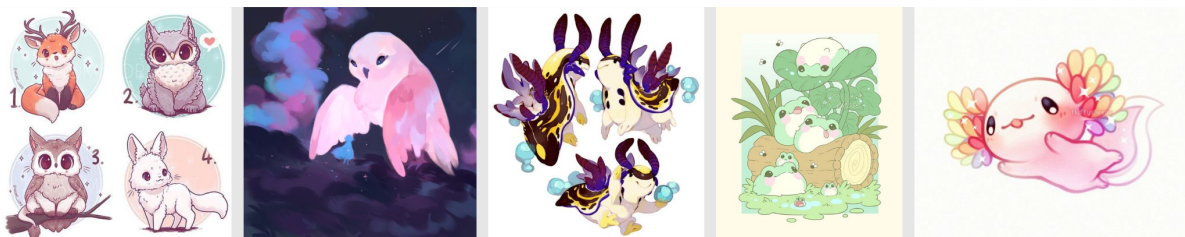
[Create concept descriptions for the ideas that would be prototyped]

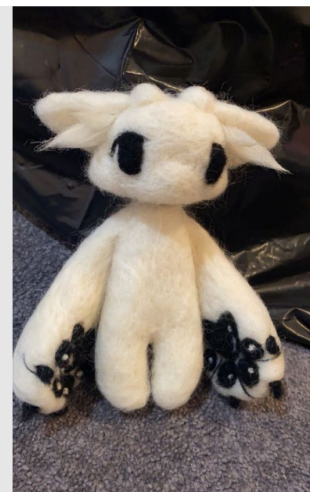
Concept name:

Lily Doll

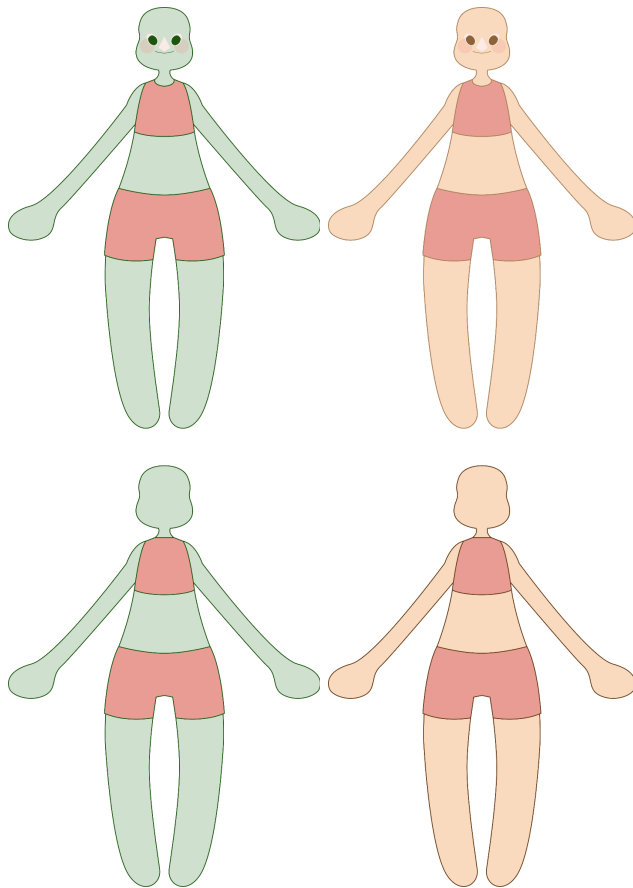
Visual references and draft visuals:

Visual Reference:





Draft Visuals:



How does it work?

The doll will be squeezed by the child this input will be sent to the app and will measure the amounts of squeezes per minute to determine the child's anxiety level. The doll will also be able to detect no touch zones area that a child is most likely to touch on the doll, this will show them places in the body that should not be touched, when the doll is touched in the no touch area it will send the data to app which record the amount of time doll was touched there. The application will also be used to teach autistic children different things.

One-sentence concept description:

Child-like, friendly, and fun!

Who does it involve, both in building and in using it?

Building: Computer science in coding the app and inputting the sensors into the doll, Graphic design, Ui/Ux design and entertainment design to design the doll and it appearance, to design the

application used for the doll, to create the packaging for the doll.

Using: The doll will be used by children with ASD, while the application will be used by the parents, caregivers or teachers.

What do we hope to learn more about through prototyping this idea?

How to build a doll that can be used by children with ASD, how to use the doll to teach them about sex education from a young age. How the app can be used by the user when used with the doll.

CONSULTATION LOG

W1: PROJECT PROGRESS REPORT

Consultation Notes:

- ? Are there any?
- Choose 2-3 projects to not limit our group building.

Next Course of Action:

1. Persona
2. Create a proposal by conducting research.

Reflections: (to be filled individually)

D – Describe objectively what happened

Choose something that you learned. Give the details of what happened.

Answer the question: 'What did I do, read, see, hear?'

I – Interpret the events

Explain your learning: new insights, connections with other learning, your feelings, hypotheses, conclusions. Answer the questions: 'What was the reason I did this activity?'/ 'What might it mean?'

E – Evaluate what you learned

Make judgments connected to observations you have made.

Answer the question: 'How is this useful?'

P – Plan how this learning will be applied

Comment on its relevance to your module, programme, future profession, life...

Answer the question: 'How might this learning apply in my future?'

Student #1 Maisarah: For week 1 class, I meet new faces and new classmates for this module. I was quite excited since I want to get to know more people under Design School. I started my class by listening and taking notes of our first class briefing regarding our modules introduction by Sir Mike; it will be more towards our MIB, Tasks requirement and our timeline. Come to the next part, which will be our Project briefing. We were given a few project options to work on through this sem. Some new

insights that I received during the project briefing will be that I will learn how interesting each project is and what are the benefits that I will receive for the outcome through this project. I was super excited and chose "Lily Doll Project". The reason why I chose this project is because I'm interested in this project, I want to build connections with the other school collaborators as well as our clients and I want to experience and create a good outcome branding products for this project. A credit to Sir Mike that helped us to prepare some of the resources that we need for Week 1, the resources file is quite useful for us to seek the base understanding of this project. But regardless of that we still need to do our own research in creating this project proposal. We set up our weekly meeting on Friday, 4.30pm and decided our team leader. After that, we divided our part on contextual research on Lily Doll.

Student #2 Min Ah Kim

On Monday week 1, we started with a brief introduction to the module and the given projects. Also, we chose the project to participate in as a group and chose a leader. Besides that, we learned about the definition and the process of 5 steps of design thinking. It was very impressive that design starts from "Empathy", and putting myself into others' shoes to solve problems. We also watched a video about a designer who designed a mini incubator for premature babies who don't have access to medical support. It was very inspiring and exciting that design can be a tool to help and save people, and it's not something I've thought about before. It definitely gave me more direction and purpose to design. Also, learning design thinking skills will give me clear guidance. On Friday, we had an online meeting held by our leader, Maisarah. We distributed our workload for research for the lily doll project.

Student #3 Yi Xuan: We spent the first week choosing the project we want to work on and formed our team. In class, Mr Mike talked about design thinking, which will be applied when we are working on our project. Throughout the week, we were expected to research our chosen project/topic and present it next week. A meeting was held by Maisarah, our chosen leader, and we broke the ice with each other and clarified our tasks for the week. I was allocated with the task of writing the summary for our project, along with Shofwa. Lily Doll is a project I wanted to work on since I am interested in increasing my understanding of autism and work on something that can help the autistic community. Hopefully, it will allow autistic kids to receive education equally and be able to learn at their own pace.

Student #4 Ivy: In week 1, our lecture, Sir Mike, briefed us about the module information of the Minor project. After that, Sir Mike briefed us about our assignment. After that, we have to choose one of the projects for our assignment. There are many projects that we can choose from and I think every project is interesting. As Sir Mike asked us to write our specialization and the 3 projects that we want to do on the google spreadsheet so that we can form the group. At last, I have chosen lily dolls and join in to a group of 6.

Student #5 Catherine: For week 1 we were briefed on what we would be doing in the module this semester. The lecturer explained to us that we would be doing interdisciplinary projects, meaning we would need to collaborate with people that don't take the same major as us and aren't even in the same field of study as us. We were briefed on 8 different projects that we could choose and after the briefing we were told to pick our first two choices that we would want to do. I was picked to be a lily doll as it was one of my options as I felt this was one of the projects that could help people. We were

also able to meet up online on Friday without our collaborators,, my internet connection was bad since my wifi was down, but I was able to listen and understand what was being discussed, we chose our group leader who made a really nice meeting slides, we viewed our Miro board and we got parts of the project to research about. I had to do the background research.

Student #6 Shofwa Alyadiena: There were several projects we were introduced to: projects by Brandialogue, AIDA, WAO, Angsana Health, as well as a project from West Bohemia University in Czech. I decided to join the project for AIDA, which is titled "Lily Doll". Lily Doll's goal is to improve education for autistic children, which struck five others and my interest. We gathered into a group of 6 by the first meeting, elected Maisarah as our group leader, then proceeded with the discussion, leading into a paired sub-group work of writing the executive summary with Yi Xuan. References were compiled from reading resources online (from ResearchGate, Google Scholar, etc.) and the module information booklet, which led to finding the introduction video to the UNSDGs that we'll be using as a goal for the project. Joining this project meant hope for me as well as many children who need accommodating education, all while improving communication and expanding network with other interdisciplinaries.

W2: PROJECT PROGRESS REPORT

Consultation Notes:

- Contextual study is not completed yet
- Finalise the age range for the target users
- Obtain research on how the age range behaves when confronted with sex education
- Consider a series of doll designs rather than 1 design for the whole age range
- Closer analysis of the Teddy Bear toy or other successful ones on why they are effective

Next Course of Action:

1. To confirm 3-4 personas that best represent the target market
2. Draft questionnaires and/or interview questions for each of the personas
3. List of online survey targets and/or interviewee identities

Reflections: *(to be filled individually)*

Student #1 Maisarah: In week 2, we drafted our contextual research and we gained some feedback on our progress from Sir Mike. After receiving the feedback, we gathered around and separated the role for the research individually. In advance, everyone was involved and helped each other out when we had discussions about the role. My part will be to do research on offer, special benefits, psychographic segmentation, behavioural segmentation and brand voice. After finalising the contextual research with the team, Sir Mike starts our next session with sharing the video about persona. The video was helpful in that it clearly showed why personas are important in design progress and how to create personas. It provided me with a better understanding of target audiences and personas.

Student #2 Min Ah Kim: In week 2, We received feedback on our progress from Mr. Mike. Our group

gathered around to separate the amount of research by each area and individually worked on them in class. I did a brief research on contribution, target audience and defining problems. Defining the problem statement wasn't easy. At first, I misunderstood the topic of our research and focused on the unnecessary parts, therefore; the whole problem research of mine was out of point. so I had to redo it. After that, Mr. Mike gave a lecture about persona. The video was very helpful in that It explained clearly why persona is important in design progress, and how to create personas. It gave me a more clear understanding of target audiences and personas.

Student #3 Yi Xuan: We gave Mr Mike a look at our progress and were told to add more to our research background. We spent some time in class discussing and gathering more information to help us understand our topic/theme better. Maisarah split up our areas to research on, and I was to list down the brand value, along with the perspective of both the retailer and consumer. Once everyone was done collecting more information, we had to create three to four personas that would potentially be interested in our project. We decided on three personas and split the work between us to create them. At the same time, we started brainstorming for potential questions to have for a survey.

Student #4 Ivy: During week 2, Sir Mike have given us some feedback for our research in the Miroboard. Sir Mike suggest us to research more deeply. So, we research the background for the lily dolls together. So, we have divided the task and I have research about the brand positioning, target market (specific brand positioning), unique selling proposition, competition and competitive differentiation. After that, Sir Mike send us a video about the way to create personals and explain about the video. Sir Mike also given

Student #5 Catherine: We were able to receive some advice from the lecturer on how our project was going, we were to do some more in depth research on the topic and also to figure our children of what age would be best to teach autistic children on sex education and what things should never be done to them.

After this we were given some tasks to do for week 3. i) Create a user persona. ii) Have a set of questions to ask each persona and why you want to ask this question. iii) Divide your persona's among yourselves and list down who your going to send the survey to or the interviewees. We were also shown a video on how to create a user persona.

Student #6 Shofwa Alyadiana: We received feedback for our research, which was really just that we had to research more relevant information and dig deeper into what we're doing. As we had a small misdirection problem, we started collecting more references to read and reflect upon. Firstly, we had to decide on a proper age range for the target audience, which is extremely crucial to the success of the project. Knowing the target audience and their age brings up other topics such as preferred materials, size, shape, etc. It's suggested that we try designing a series of dolls rather than just one, possibly accommodating to most autistic kids. We were then given a general task, which is to create personas by the end of the week. We were split into pairs again and managed to produce 6 personas, which were then finalized into three. Based on the personas, we built starter interview questions as well as specific questions that will aid us in the project.

W3: PROJECT PROGRESS REPORT

Consultation Notes:

- Personas have been confirmed
- Online questionnaire in development
- Doll case studies have begun

A codesigned version has been made by AIDA with a clinical psychologist and occupational therapist. The new design will have to at least have that basic shape of a similar structure.

1. Size of the head is to fit hand squeeze for gross motor skills.
2. Longer limbs for swinging/flapping movement regulation.

The design so far hadn't considered the fitting in of the sensors and how much room is needed for it not to feel it's there but it's "there". The range of these dolls can be expanded where there's the original one, then maybe the different clothed ones, and then the IoT ones with the sensors. The dolls don't need to be humans, could be animals too.

Next Course of Action:

1. The online questionnaire needs to be in sequence and should address the 3 personas' frustrations and goals
2. Doll case studies need to produce an analysis that shows the material used, sensors, app integration (UI/UX) and audio design.

Reflections: *(to be filled individually)*

Student #1 Maisarah: In Week 3, we update our progress with sir Mike on our interviews and possible answers regarding our personas as well as confirming with sir our finalised persona. We have forward insight in understanding our finalise personas by putting ourselves in the personas shoes. Sir Mike suggested that we arrange the questions in a vertical-flow list rather than a jumble of questions and try to list it out in google doc/ Miro Board. By the end of the week, we had decided which questions could be kept and which should be removed. During this friday, we finally got our first meeting with the science comp students regarding each of our current each of the school updates.

Student #2 Min Ah Kim: For week 3, we received feedback on our progress of personas from Mr. Mike. Working on creating personas wasn't easy since I wasn't sure how detailed a persona should be. Also, imagining possible life stories, traits and values of each persona was the most challenging part. I've already learned that "empathy" is the most fundamental factor in design. However, I realized once again that putting myself into the shoes of the target audience is very essential yet not easy. In the virtual meeting on Friday, we worked on interview questions.

Student #3 Yi Xuan: We had the basic idea of who our personas should be and presented them to Mr Mike. We amended and added on to our personas as he gave us our feedback, which helped us narrow down the specific needs and goals for each persona. Mr Mike also suggested that we arrange

our questions in a flow so that we can identify which questions to use/not use. Our Friday meeting was held to that effect.

Student #4 Ivy: In this week, we have consult the 3 persona with Sir Mike. At first, we decided to create 3 persona which is Mother, Brother and Specialist. After consult, we need to change some of the setting for all the persona and write more details about each persona. Besides, we also need to change the Brother to Cousin because the brother personality is not suitable. So, we have change some of the content and consult with Sir Mike after class.

Student #5 Catherine: In week 3 we were able to receive feedback from the lecturer on our user persona's and the things that he wanted to see about the persona. Since I was in charge with the specialist user persona after i was done listening to the lecturer's feedback i started researching the things he had asked such as who was usually in charge of educating young children with autism and how much exactly is it for parents to pay for them. On our friday meeting we planned to meet the computer science degree students on Monday which was a public holiday.

Student #6 Shofwa Alyadiena: This week we started with designing and brainstorming our interview questions. We started writing them with the personas in mind, and didn't understand first that the personas needed to be much more detailed than we had it at that time. We discussed with Mr Mike about it and confirmed and finalized the stories and persona profiles. We then adjusted the questions based on the finalized personas. Mr Mike pointed out to us that the flow of the questions could be much better if we put them down in a vertical-flow list rather than a bunch of questions put together at once. We discussed by the end of the week what questions could stay and what should be removed. Finally, we discussed a meeting time to meet with the computer science students.

W4: PROJECT PROGRESS REPORT

Consultation Notes:

- Discussed with the computing group the scope of work (sensors and app integration). They will research the suitable sensors to be used and the backend system for the app. The features would need to be decided after meeting AIDA.
- The design group would work on the doll case studies, to produce an analysis that shows the material used, sensors, app integration (UI/UX) and audio design.
- The interview should not be online but a semi-structured interview. Suggested interviewing at least one person for each of the identified personas. Recommended Early Autism Project.

Next Course of Action:

1. Conduct a semi-structured interview.
2. Meet AIDA personnel to confirm on features and contents of the doll and the app.
3. <https://www.studocu.com/my/u/24885036?sid=01682587287> (read this)

Reflections: *(to be filled individually)*

Student #1 Maisarah: Me and Ivy represent Design School and have our first collaboration meeting with the Science comp students physically by sir explaining about each of our school roles. We have been clarified that the design team needed to create the outer part of the doll while the science comp students did the inner part of the doll. For design school we need to create the design of the app, poster, character of the doll and packaging. Computer science students need to make the NFC chip workable and make sure that the sensor design protects inside the doll. Fast forward on Thursday, we met Ms Beatrice for the first time as well as the whole science computer students and design school students. We took note of AIDA information and sharing plus took our chance to interview her.

Student #2:Min Ah Kim: There was no class on this Monday since it was a public holiday. As planned, we had our first collaborative meeting with Ms.Beatrice, the CEO of AIDA and the computer science students. Luckily enough, we had a chance to ask interview questions to Ms.Beatrice. Her answers with personal life experiences were inspiring and provided us with a new perspective to see the project. In addition, through the meeting, we were also able to clarify the values and the direction of the project we should pursue.

Student #3 Yi Xuan: Monday was a public holiday, so we were mostly self-directed for the week. We finally got in contact with the Science Computing students, who would be collaborating with us on this project. A meeting was held to introduce each other while checking up on progress and current findings. We also managed to arrange a meeting and interview with Ms Beatrice, the CEO of AIDA. We had our interview questions reviewed by Mr Mike before the meeting. The interview was fruitful, as it helped clarify the purpose of Lily Doll, its functions and requirements for production. This helped us understand which direction we should take while developing Lily Doll.

Student #4 Ivy: In week 4, we have the first meeting with the computer science student and our client, Miss Beatrice. Miss Beatrice have talk about many information about the lily dolls. Besides, after the meeting with the computer science, we have also interview the AIDA about the Lily dolls. By attending this meeting and interview, we have gain a lot of knowledge about the Lily dolls, and know the aims and objective for AIDA about the Lily dolls.

Student #5 Catherine: Week 4 monday was public holiday and my group was able to meet up with the computer science student to discuss about collaborating on the project. I was not able to join that meeting as I was not home at the time. The group did not get much updates from the computer science students and were only able to update with the information that we did have. We worked on our interview questions that we would use on AIDA when we met with them. We were told that we would meet with Ms. Beatrice on Thursday and it was up to us to decide when to meet her, the only time everyone else was available was in the afternoon but I had class then and would not be able to join, I asked my group members to update me on the progress. I was given the job to move the interview questions from the miro board to a google document. The group was able to interview Ms. Beatrice and get general information on her plan for this project and the doll that they would be making.

Student #6 Shofwa Alyadiena: This week we started the first meeting with the collaborator school. We explained to them our researches and findings then later found out the computer science kids didn't have more information than we do regarding the project. At least, we caught them up with what we have. At Tuesday, a few of the members who were available went to finalize the interview

questions, which were then used in a meeting with AIDA's Beatrice Leong. We learned a lot of new things from her, and understood that the most basic requirements for Lily Doll is a squeezable head, long flimsy limbs, and our own touch of what could be stress relief for the autistic kids. There were other informations we extracted from the interview, being that Lily Doll will be more feminine-aligned and that Fashion students are also part of it. The AIDA Personnel told us that we will be having a Lily Doll prototype for ourselves to see and feel personally.

W5: PROJECT PROGRESS REPORT

Consultation Notes:

- Met with AIDA CEO and conducted an interview too.
- Promised a sample of the doll to analyse for design by AIDA.
- Interviews with AIDA personnel as experts in the field and also parents with ASD children if any, would be needed as soon as possible to complete the insights section on Miro. Without the interview information, the insights would not be accurate.

Next Course of Action:

1. Must conduct interviews with AIDA personnel and parents of ASD children as soon as possible.
2. Analyse interview data and proceed to complete the Insights section in Miro.

Reflections: *(to be filled individually)*

Student #1 Maisarah: We don't have class this week on Monday but me and Ivy got the time to update sir on our progress as well as the next action step. After Sir Mike reviewing our progress, Sir Mike agreed to give us an extra week or two to recruit another two interviewers for data collection. Sir Mike also suggests that we find the interviewer ourselves rather than relying on the MS Beatrice. Following up, we are going to start the process of designing the lily dolls. We must also consider the deadline for completing the proposal and submitting it to the client for approval.

Student #2 Min Ah Kim: There was no class on this Monday since it was a public holiday. However, we still had our weekly group meeting on Friday. We discussed scheduling our upcoming tasks, particularly finding interviewees. Also, we worked on filling out our progress sheet.

Student #3 Yi Xuan: Yet another public holiday, so we had to plan out what we can do for the week. Maisarah and Ivy updated Mr Mike on our progress, and he gave us an extension since we had yet to collect enough interview responses. In our weekly meeting, Maisarah had a timeline prepared for us to refer to and keep track of our progress, and also determine our roles after the proposal was done. As ED students, me and Shofwa were in charge of designing the Lily Doll base. We were to collect some references for what we envision the doll to look like as part of the art direction.

Student #4 Ivy: In this week, we have consult and update the progression with Sir Mike about the meeting with computer science student and our client, AIDA. After listening to the progress, Sir Mike

allow us to extend one or two week to find for other two interviewers for collecting the data. Besides, Sir Mike also suggest us to find the interviewer ourselves instead of waiting from the client. After doing the interview, we will start our progression on design the lily dolls. We also need to consider the date to complete the proposal and sent to the client for approval.

Student #5 Catherine: We had a public holiday this monday. Some of our team members were able to update the lecturer on what currently had, and how we were still behind on our interviews and we ended up getting an extension on our interview.

Student #6 Shofwa Alyadiena: This Monday wasn't heavily progressive as it was a public holiday. Our teammates discussed our current findings with Mr Mike and we were given an extension for our first submission as we were lacking some interviews. During our weekly Friday meeting, Maisarah-our group leader- briefed us on this change of plans and project timelines to keep us updated. Most importantly, me and Yi Xuan will be working on the designs and art direction for the doll's appearance. We then worked on filling all our progress reports as of current.

W6: PROJECT PROGRESS REPORT

Consultation Notes:

- Must conduct interviews with AIDA personnel and parents of ASD children as soon as possible.
- Analyse interview data and proceed to complete the Insights section in Miro.

Next Course of Action:

1.

Reflections: *(to be filled individually)*

Student #1 Maisarah: We begin week 6 by gathering to work on the mood board, which includes character design and graphic design. Nevertheless, we had not completed our search for interviews for our project, in which Sir Mike remarked that focusing on the mood board is not efficient until we validate our assumption or anticipation for further design direction through interviews with our personas. After feedback, we spent time on WhatsApp contacting the ASD centre or organisation to arrange an interview. Ms Beatrice got back to me with 3 potential interviews and one of them agreed to conduct on Saturday which is one of the persona will be mother. This Friday, there was no online meeting to focus on interviews.

Student #2 Min Ah Kim: During the week 6 class, our group gathered to work on the mood board that covers character design and graphic design elements. However, we weren't still not done with finding the interviewees for our project. Mr. Mike mentioned that it's pointless to focus on the mood board until we prove our assumption or expectation for further design progress through interviewees representing our target audience. Thus, we spent time contacting the ASD centre or organization via WhatsApp to request an interview. No online meeting has proceeded this Friday to focus on

interviews.

Student #3 Yi Xuan: We planned out our moodboard in advance, in hopes to be efficient and caught up in terms of progress. However, we didn't have enough information to be forming an art direction, so Mr Mike discouraged us from doing so. In the end, we spent more time looking for potential interviewees. I know my cousin has an autistic cousin at her father's side, and is also a special needs teacher so I thought she would be the perfect candidate. I texted her about our project and asked if she would be interested in participating in an interview. She agreed and we had a meeting the next day for the interview. Later in the week, we had another interview with Nik Nadia— a mother of two autistic children.

Student #4 Ivy: In week 6, as we do not find any interview, we have done the moodboard together in the class. We have divided into two group which are character design and graphic design elements. After discussed about the mood board we decided to show our progress to Sir Mike. but Sir Mike say we cannot do the moodboard first, because we haven't complete our research and finding. The design must have reason and based on the answer of the interview. So, Sir Mike ask all of us to find the Autism Organisation and get contact to them so that we can find the interviewer on time. Fortunately, we have found the interviewee from Miss Beatrice, which is Nik Nadia and we have interview her in week 6 Saturday.

Student #5 Catherine: In week 6 we worked on our moodboard together in class, I was given the responsibility of working on the visuals and ideas for the UI/UX direction. However after we were done and went to discuss it with the lecturer he said that it didn't make sense to work on the moodboard if we weren't done with our interview since it wouldn't be portraying what the client or users would want but our own personal preference. At the time even before Mr. Mike asked us to, I was trying to find and contact as many Autism centres and parents or people with Autism to try and set up a meeting with them, immediately two organisations responded that they would get back to me, so when the lecturer asked to look for more people to interview I was able to put down the people i had already reached out to.

Student #6 Shofwa Alyadiena: During this week's class, we first committed to our project timeline, working on the moodboard as a team based on the interview we did have. However, it wasn't based on enough research since we needed much more interviews before committing to a design direction. Before we proceeded with our design mood boards, we ended up discussing further how we might contact other organizations to improve the quality and impact of our work. Fortunately, we received responses from quite a few organizations, and started an interview this week's Saturday with a mother of two autistic daughters, Nik Nadia.

W7: PROJECT PROGRESS REPORT

Consultation Notes:

- Remaining 1 more interview with a centre of learning.
- Crucial to get more data from experts or teachers who have influence on the ASD children's

parents.

- The computing partners have shared the Capstone 1 proposal and would require the Design team to discuss and agree on the user experience. The idea is ensure that AIDA's requirements have been met from the proposal and the design of the doll would be able to complement the electronics and sensors. A large component of learning modules have been proposed by the computing team but there was no mention on the source.

Next Course of Action:

1. The design team need to meet with the computing partners to discuss and agree on the features along with the UX.
2. Once the agreed approach or proposal had been obtained, the proposal need to be approved by AIDA as soon as possible before commencement of the design work. Proposal to AIDA needs to be achieved latest by mid-week 9.

Reflections: *(to be filled individually)*

Student #1 Maisarah: This week sir introduced us to User Journey. Sir also mentioned the importance of the touchpoint and how much we want to spend time in awareness for our client. We also gather to finalise in our report progress in google doc about our interview answers. Then we go ask sir regarding our this wednesday will be our final interview with Ms Ting Ting. We proceeded with the interview and sir gave us the science computers students proposal. On Tuesday, Ivy and Mina had a meeting with science comp students and sir Mike. We have a discussion on clarifying the proposal as well as the purpose and initial plan from the science computer students. We also thinking about our presentation date with Ms Beatrice.

Student #2 Min Ah Kim: On Monday, we were introduced to the user journey and its importance in class. On Tuesday, Maisarah, Ivy and I had a meeting with Mr. Mike and students of computer science. We received feedback from Mr. Mike regarding our progress and direction of the Lily doll project.

Student #3 Yi Xuan: Mr Mike taught us about user journey and how it is applied to the project we are working on. Aside from the lecture, we proceeded to show our progress to Mr Mike. At the same time, we were given a document of the proposal from the Computer Science students, which required our approval. Therefore, we spent the time looking through its contents and realised that there are some features/points we did not expect. We were encouraged to have a meeting with the computing students to hash out the proposal before agreeing and presenting it to AIDA. Later in the week, we held two interviews for Ms Ting Ting (teacher for autistic kids) and National Autism Society of Malaysia (NASOM). Then, our weekly meeting was held to discuss what we want to put into our proposal to AIDA.

Student #4 Ivy: In week 7, we have learned about the Customer Jouney Map In the class. Besides, for the progression of the project, Sir Mike Give us the proposal that have been done from the Computer Science School. Then, Sir Mike also highlighted some of the important and relevant (about the design part) part to us and tell as the read it. Sir Mike also advice us to have a meeting with the Computer Science about the proposal and the slides. For the interview part, our group have finded two other interviewees for the research which is Ms Ting Ting and National Autism Society of

Malaysia (NASOM) and will interview them in this week. But due to the time arrangement, I cannot attend the interview. Besides, we also meet with Computer Sciences student with Sir Mike on Tuesday to talk about the proposal and the presentation date with our client, Ms Beatrice. For the weekly meeting for our group, we have discussed about the 5 ideas, and decided the point that we want to present to our client.

Student #5 Catherine: I got a reply from NASOM (National Autism Society of Malaysia) that they would be able to conduct an interview with us this week on Friday. I had to go ask Mr. Mike if we should do the interview since we already had enough interviews from each person, however he advised us that there was nothing wrong with having more specialist interviews to learn more on a technical point about people with ASD and how the doll would help them. On this week we also were taught by the lecturer how to do the user journey map which we would need to do for the project we are working on. We were also shown a document from AIDA that required our approval, so we spent most of that lesson looking at the document especially the text in red highlight to see whether we would be able to agree with it, there were a lot of points that were new to us, we were to discuss the points and see what we could agree on and what we would want changed.

On Friday we had the interview with the NASOM representative, although we had to do the interview quick as he had other business to do, the representative was in charge of promoting NASOM and in the more business and marketing end of the organisation and so was not able to answer any of our questions of when it came to communicating with ASD children or just thoughts about interacting with ASD people since he was not the one who interacted with us, he was mostly able to tell us more business related answers like how to market the doll to parents or what the designs and features would be good on the doll. After that we met as a group and began working on our user journey map and the report document for the day.

Student #6 Shofwa Alyadiena: The user journey was explained to us in this week, full with how much we want to spend time gaining attention for our client. Our group gathered and finalised some of our interview answers and interpretations. While doing so, we learned from Mr Mike only that the computing team had a proposal that wasn't yet addressed to us, so we spent some time taking a look at their work. There are a lot of conflicting elements, which was expected, that we have to discuss with them to finalise and finally ask Ms Beatrice her opinions on it. This week as well, we continued the interpretations and started compiling our insights to complete up to the problem statement at least.

W8: PROJECT PROGRESS REPORT

Consultation Notes:

Video for you to understand how plush toys are made:

<https://youtu.be/2JmP-JsBxrc>

<https://youtu.be/3dzqyX60Cjk>

<https://youtu.be/Hczl2dKv3Us>

Next Course of Action:**Reflections:** *(to be filled individually)*

Student #1 Maisarah: We are having an independent learning week for Week 8. This week we started working on the presentation proposal slide where we have a joint slide with computer science. I assigned the parts towards my team members for the slides. I have an alignment with computer science regarding the update and MS Beatrice regarding the date and time for the presentation. We are planning to show our progress to sir next week. I downscale to my team members to watch the three Youtube videos that Sir Mike provides to us.

Student #2 Min Ah Kim: Week 8 was independent learning week. During this week, we all separated the workload individually to create a slide for the upcoming presentation. I was assigned to work on the sections of user personas, graphic elements and photography.

Student #3 Yi Xuan: For independent learning week, we decided to use the time to prepare for our proposal presentation to AIDA. Shofwa and I are in charge of compiling our art direction for the doll. We experimented with the possible shapes and designs of the doll, as well as discussing about the choice of colours and style based from the interview answers.

Student #4 Ivy: Week 7 is our independent learning week. So, we don't attend any class to consult with Sir Mike and meet with Computer Sciences student. But, we will also do our weekly meeting. In the meeting, we divide the part to do the slides. For my side, I have been divided to do the competitor of the lily doll and do the graphic element, colour and the typography part. Besides, Sir Mike also share the youtube video link about the tutorial to create a doll to us and let us to watch.

Student #5 Catherine: In this week we had an independent learning week and we didn't meet for class. However we focused on making the presentation for the client, I was given the job to work on the specialist persona and the UI/UX direction.

Student #6 Shofwa Alyadiena: This week, we combined all the data we brought from last week as well as finalized the interpretations of the interview answers. We then continued our ideations and insights, proceeding to finalize the problem statement as well as working on the presentation slides that will be used for the proposal. We then proceeded to divide our task for the presentation slides. Yi Xuan and I were in charge of the art direction for the doll's design, and we discussed among ourselves how the shape and basic idea of the doll will be as well as the colours and style.

W9: PROJECT PROGRESS REPORT**Consultation Notes:**

- Shown WIP slides for design proposal to Beatrice AIDA
- The slides need to only show keywords and not meant to be read as a document

- The Key Visuals are missing. Need to produce that to implement all of the Art Direction elements
- The rationale for all design decisions need to be in sync with all other visual designs that will be shown
- The computing partner's slides should be consistent in design and should remove unnecessary information that is not relevant for the client's understanding. Remember these slides are for the client and not for the lecturer
- The app that needs to be designed will need to be fed with data from the doll's sensors. The obtained data would then be design with appropriate UI Design style that is consistent with the Lily Doll's art direction.

Next Course of Action:

1.

Reflections: *(to be filled individually)*

Student #1 Maisarah: This week we proceed by receiving feedback from sir Mike regarding our slide. Me, Ivy and Minah improved our Art Direction parts which are Logo, Key Visual and Typography in the class. We created a few potential logos to proceed. Ms Beatrice responded to our messages, she told us that we are able to create a logo for the Lily Doll Project. I also edit back my contextual research part and update a few feedbacks for the computing school side. We also have discussion regarding the visual data and what kind of contents that we would apply in the app. We also edit the slide to make it more uniform.

Student #2 Min Ah Kim: Since we had a presentation with Ms. Beatrice on Thursday, we all gathered around in class to communicate regarding preparing the slides. We received specific feedback from Ms. Beatrice about the logo, typefaces and design of the dolls. We were also recommended to check "Universal Design Language" for further research.

Student #3 Yi Xuan: Shofwa and I continue to design the dolls. My design leaned more towards incorporating animal parts onto the base doll, while Shofwa designs the base doll to be plain and have the costumes to be animal-inspired instead. We both came up with three designs each and put them as part of our proposal. The proposal slides are done and presented to Ms Beatrice. She gave us some feedback regarding our proposal, mainly the issue of the "bikini" design on the base doll and to be smart about adding animal features on the dolls as the children might project themselves onto the doll and think that they can become certain animals. It is also advised that we reduce the amount of buttons on the doll's outfit to prevent kids from getting frustrated by the mechanic.

Student #4 Ivy: It is a presentation week with Ms Beatrice, so everyone from our group are focus on the presentation slides. After consult with Sir Mike on Monday, Sir Mike ask to explain more about our design. Sir Mike also advised us to write the presentation slides on point form because client will not read the slides. Besides, Me, Maisarah and Minah also discuss about the sketches for the logo. Due to the feedback from Sir Mike, we also decided to change and redesign our presentation slides. The reason is because our old presentation slides are a little messy and the design are also do not

match to our themes. So on Tuesday, me and Maisarah decided to find a new slides from google slides and our group carry to whole information from the old slides to the new one together. During the presentation day, we have gain some feedback regarding to the design part. For the digital art direction, Ms Beatrice advised us to find the typeface that is easy to read specially for the dyslexic. Besides, for the logo, She also say that our logo is to childlike and we can refer to the Barbie's doll logo.

Student #5 Catherine: This week we were preparing our presentation slides to show to Ms. Beatrice and we got some feedback from our lecturer who stated that our slides had too many words and that would bore the clients, we needed to get straight to the point to grab their attention. We were also told to fix the art direction and rationale so that it is more consistent and to show big visuals to make it more engaging for the audience. I had a lot of questions for the app as I still had no idea what content was needed for the app, the lecturer gave me some ideas on what might be found in an app like this and to come up with some of my own content which would hard as such an app has never been created before so I couldn't even reference from other apps. I was only able to create the wireframe for the pages i found to be the more significant ones. We met with Ms. Beatrice gave us feedback on the slides, especially the dolls' design and how certain things could be a safety hazard for the kids and to think about practicality when producing the doll, she also told us to try and incorporate the PECS system somehow.

Student #6 Shofwa Alyadiena: This week we prepared our presentation slides properly and commujnicated with each other about what we were doing in our specialized tasks. Yi Xuan and I worked on the character design together and considered the shape and size and general look of the doll's base as well as the ideation process to create the designs. We set up a meeting with the computer science students and Ms Beatrice to present our proposal. Ms Beatrice gave feedback specifically for the character design that the dolls' base shouldn't include animal features to avoid misconceptions and harmful projections (such as the child thinking they can turn into the animals or have specific super powers based on the doll) and to avoid the look of a "bikini". For the outfits, it's best to avoid small details like the laces or the multiple buttons as it might make the children frustrated to play with the doll, so we can try popping buttons or a large zipper or velcro. Ms Beatrice suggested a onesie.

W10: PROJECT PROGRESS REPORT

Consultation Notes:

- Presented to Ms Beatrice and the features seem to be approved. But to confirm, suggested to create a storyboard of all the features from end-to-end and get her feedback as soon as possible.
- The character designs need to be confirmed if it's only for humans or includes animals. If animals are included, need to confirm on the fact of animals on fours and not on twos when teaching sexual parts. Also, there needs to be a character line-up to establish the base

proportions or base models and then work from there to expand the designs with customised costumes/clothings and accessories. The characters also need completed facial development.

- The commuting side will produce a prototype of the components to demonstrate the functionality but not as the actual or intended size. This integration will include the app link-up.

Next Course of Action:

1.

Reflections: *(to be filled individually)*

Student #1 Maisarah: We don't have class for this week, instead we have our own meeting with 5 out of 6 members attending on Monday to discuss our individual parts and the user journey map. On Tuesday, me and Ivy went to meet Sir Mike for further consultation regarding our Presentation proposal and the user map. We also got new updates from the computer science side which they need to change to a new plan. We don't have much issue regarding the user journey map but we have issues regarding deciding what the doll looks like, the wireframe as well as the roleplay (moodboard). We need to explain it in a more specific way and also need to provide reasoning to it. On wednesday, we have an emergency meeting to update regarding the feedback because overall there were heavy tasks to do in a short time. I'm in charge of communicating with science computer students regarding the new components update and the wireframe. On friday we have our usual weekly meeting, we have a learning session with Catherine regarding UI/UX. On Saturday, the wireframe team has a meeting and discusses each of our parts and plans to finish the design before Monday.

Student #2 Min Ah Kim: We didn't have a class this week since it was a public holiday. Instead, we had an online group meeting to discuss our user journey map progress. Also, Maisarah shared the feedback from Mr. Mike with us.

Student #3 Yi Xuan: No class this week, so we had it replaced with our weekly online meeting. Since we got our feedback from our proposal, we started splitting our work according to our specialisations. Shofwa and I are in charge of developing the doll characters. We settled with Shofwa's idea to implement the animal features onto the costume instead, so it's more flexible for the children to switch into different animal clothes if they have multiple. I redesign three characters so we have six characters in total (including Shofwa's design). Then, we chose one of the characters to model. I start working on the 3D model blockout while she cleans up the design in Illustrator.

Student #4 Ivy: We don't have class this week as it is a public holiday. So, we decided to have a online meeting on Monday. We discuss about the user journey map and listed down on the Miroboard. After that, on Tuesday, me and Maisarah consult with Sir Mike regarding to the presentation slides and the user journey map. We also got some undate from the computer science side. Besides, Sir Mike also suggest us to explain the role play in a more detail ways.

Student #5 Catherine: We didn't have class this week as it was a public holiday, but we did meet up on friday to discuss our user journey map, we divided the tasks and did them together. We also

discussed dividing the screens needed for the app, so everyone could contribute in the app making process, which really helped me a lot as it allowed to focus more on the screens I was in charge of doing.

Student #6 Shofwa Alyadiena: During this week we replaced our class with an online group meeting as it was a public holiday. With five out of six members present, we started discussing our plans for when we will finalize our individual tasks within the group and how we will approach the user journey map as well as acting upon the feedback given to us. Yi Xuan and I are in charge of finalizing the character design. She worked on the 3D model blockouts as I moved our final chosen main costume into an illustrator file for a cleaner look.

W11: PROJECT PROGRESS REPORT

Consultation Notes:

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Next Course of Action:

- 1.

Reflections: *(to be filled individually)*

Student #1 Maisarah: On Tuesday, me, Shofwa and Ivy went to have a consultation space with sir Mike regarding the updates before we decide to show it to Ms Beatrice and the updated wireframe to science computer school. We got feedback related to the character of the doll, branding, wireframe and storyboard. We also secured a meeting with Ms Beatrice regarding our upcoming update. On Saturday, we proceed with our meeting with Ms Beatrice. The wireframe goes well overall and we also make sure of the flow for the roleplay from the kid playing the doll to the app on the user's hand. We also make sure that Ms Beatrice is aware of the sensor placement and the character line up.

Student #2 Min Ah Kim: During this week, we separated our workload to create a storyboard to express user experiences with the app and lily doll. On Saturday, we had a meeting with Ms. Beatrice for updates on our progress. We received feedbacks from Ms. Beatrice regarding logo, wireframe and storyboard.

Student #3 Yi Xuan: I finished up the blockout and started to model the features on the doll. I had to ask for some opinions from the group on how the model should move and work, as the volumes around the legs and arms are important so they can be flapped around and be seated down. I also started sculpting the outfit and adjusted the clothing according to the updated design from Shofwa.

Student #4 Ivy: In this week, me, Maisarah and Shofwa consult with Sir Mike about the wireframe. We also divided our work to draw the story board. On Saturday, we have a meeting with Miss Beatrice about the update for the wireframe, role play, doll character, logo and typography. Overall,

Miss Beatrice very satisfy with the update, but she also mention some feedback about the logo and suggested us to change some things about the logo.

Student #5 Catherine: We had finished doing most of the low-fidelity prototype by this time, Shofwa started to add colour to the wireframe following the colour palette we had decided on, we had to work on making it look better. We met up with Ms.Beatrice who liked the wireframe of the app, she gave us feedback on the doll and logo. The lecturer also asked us to work on a storyboard for how the app works, as I was still working on the UI/UX the work was divided among us and most of the story board work was divided among the members who could do it.

Student #6 Shofwa Alyadiena: During Monday's class I worked on cleaning up the wireframe as I felt that it could be more organised as well as amending the fact it had not been coloured yet. The colours used were mainly yellow since we already agreed to it. We started a feedback session on Tuesday, showing our progress and receiving feedback in the process. Mr Mike explained that there was no need for the app to have a customization/rename option for the doll in the main page as the person using it wouldn't really care about it, and more on the data.

W12: PROJECT PROGRESS REPORT

Consultation Notes:

- Add information about what each data means and what the parents/guardian should do, like if it's normal or should be concerned and talked about with the ASD kid.
- Shown logo but the button mark has no relation to the product design. After discussion, the mark which has the dot for the 'i' could be the doll head, which is the doll design and feature. But since the client had chosen the button mark, produce both versions i.e. one with the button and another with the doll head and communicate the reason and justification to the client during the final presentation.
- The app's data visualisation is justified but the action to take is not shown. This means that the data informed the user but doesn't teach or guide the user to act on it. Suggested to connect the data's meaning and follow up action with the 'courses' as prescription to the action to be taken.
- The doll's design need only be shown with an 'A' pose and the design's practicality can be reviewed by the doll maker with just visuals of the best 3D render of front, back and side views with accurate indication of measurements.

Next Course of Action:

1. Need to show the monotone logo and also the alternative version with the doll's head.
2. List of launch and promotional material for the brand and product. Each material needs to address the when, where and what for the user's perspective. Next step.
3. Suggested 'prescription' combo of courses' videos as examples to show how the data connects with the action to be taken case study.

4. Doll designs

Reflections: *(to be filled individually)*

Student #1: For this week, we start our production phase where we update and discuss each of our parts. Me, Minah and Ivy are in charge of the poster and the logo meanwhile Shofwa and Yi Xuan already start work on the 3D. We are also going to have a meeting with the computer science team regarding our update wireframe. No Grant Chart needed for our group after confirming it with sir.

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Student #2 Min Ah Kim: In Monday class, Ivy and I had a final discussion on the colour choices of the logo and the basic idea for posters. For the poster, we did some research on existing posters to refer to. Regarding the research progress, Mr. Mike mentioned that the specific parts of reference images that we use for references have to be more elaborated.

Student #3 Yi Xuan: Since we only needed an A-pose for our model, I finished the 3D model quickly and handed over the file to Shofwa for her to colour and render. I taught her a few things in ZBrush since I'm more familiar with the program, and we finished the model by the end of the week.

Student #4 Ivy: In this week, me and Minah start to discuss about the logo and also sketch the poster. We explore more logo with different colour and also the design of the logo. Then we received the feedback from Sir Mike to provide a logo that have the element of the Doll head, so that it is more recognizable. For the poster, Sir Mike say we have to find the reference properly so that the client will not get confuse about the things tha we want to refer to. On Tuesday. We have a meeting with the computer science student and update to them about our wireframe.

Student #5 Catherine: During we met up with the computer science students to discuss our progress with them and to find out about their progress, we showed them our slides and our wireframe of the app and they proceeded to tell about the changes they made, like getting a new sensor for the doll as they believed the old sensor wouldn't fit into the doll as it was too heavy. We also found out that the computer science students would be coding the whole app and our job was to just work on the visuals of the app and how the app would look like and how it would record and visualise the data.

Student #6 Shofwa Alyadiana: This week we focused on fixing the wireframe and received feedback regarding Ms Beatrice's comments from last week about what should and shouldn't be updated for the app. He also suggested that we only need to do an A-Pose for the doll's 3D model. We continued to discuss when our next meeting with the computer science team will be.

W13: PROJECT PROGRESS REPORT

Consultation Notes:

- Showed the monotone logo and also the alternative version with the doll's head.
- Suggested 'prescription' combo of courses' videos as examples to show how the data connects with the action to be taken case study.
- Doll designs yet to be finalized.
- 3D rendered master design doll was shown and looks good.

Next Course of Action:

1. List of launch and promotional material for the brand and product. Each material needs to address the when, where and what for the user's perspective.
2. Review 'prescription' combo of courses' videos as examples to show how the data connects with the action to be taken case study.
3. Review other doll designs.

Reflections: *(to be filled individually)*

Student #1 Maisarah: For this week, I didn't attend the class and attended our weekly meeting on Friday. We discussed each of our progress and what the updates were during this week's class. We also discussed the contents for our final presentation with Miss Beatrice and science computer school.

Student #2 Min Ah Kim: On Monday, Ivy and I worked on the initial design of the packaging for lily dolls since Maisarah and Catherine took over the posters. We came up with a reusable packaging that can be turned into a play set, a couch. We completed our die-cut and tested a prototype during the Monday class. During this week, Ivy took charge of applying visual elements on the die-cut, and I worked on creating a sticker sheet for the use of decoration on the couch.

Student #3 Yi Xuan: I got feedback from Mr Mike about our finalised model and got an approval. Since the doll model is done, I help out with the "What's Next" button for the app. I placed in some information I thought would be useful when helping autistic children with stress. In the end, I came up with a few things referencing a few websites that talk about stimming.

Student #4 Ivy: For this week, me and Minah discuss about the packaging of the lily doll. We decided to design a packaging that is reusable, so that it is eco-friendly, and the user also can always see the user guide on the packaging. After we have an idea, we decided to design the die-cut of the packaging and also make a small prototype of the packaging so that it is more clearer. The feedback that we got from Sir Mike is the idea is good and we can also research more on other toy packaging. At last, we decided to continue with our first idea, and we divided our part into front packaging design (me) and the sticker design (Minah).

Student #5 Catherine: This week I didn't attend physical classes but attended our weekly meeting. I was told that we needed to add a what's next part to the data report page to show caregivers what to do with the results they get from the app. We also had to make promotional content for the doll, I was given social media and was given the job of making the testimonial post and the sneak peak posts.

Student #6 Shofwa Alyadiena: This week, I wasn't able to attend physical classes. All progress done on my part were done online through our weekly meeting on Friday. I brushed up and uploaded

the 3D works that I've polished to the MIRO board and looked up any resources I could find regarding the What's Next regarding the ASD child's stress and squeezes. Unfortunately, although there were a lot regarding their stims and correlation to stress, there were none that were able to categorize the frequency and speed of the squeeze into what's caused by various stresses and what's caused by normal, non-concerning squeezes. This information is necessary to be provided by AIDA.

W14: PROJECT PROGRESS REPORT

Consultation Notes:

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Next Course of Action:

- 1.

Reflections: *(to be filled individually)*

Student #1 Maisarah: On week 14, we proceeded with each other and received feedback from sir. We also discuss and fill up our report progress in google doc. I finish up my part which will be the social media post, infographic post and physical poster. On Friday, we have our weekly meeting where I divided the parts and we need to fill up the missing content for the project document. Plus, we plan out what we need to include in our slides and submission.

Student #2 Min Ah Kim: During the last week, Ivy and I focused on completing the final touches for all graphic elements, packaging, and stickers. We received valuable feedback from Mr. Mike regarding the packaging, specifically noting that the utilization of yellow color reduces the contrast between the doll and the packaging box. Taking this feedback, we made some necessary adjustments. Furthermore, we dedicated time to finalize the presentation slides and prepare the final report.

Student #3 Yi Xuan: We received feedback from Mr Mike about the wireframe and our current progress in preparing for our presentation. We also have our weekly meeting to divide our parts in filling up the missing content for the project document, and plan out what we need to include in our slides and submission. I mostly assisted in preparing for the final presentation slides and arranging the items in our folder to be submitted.

Student #4 Ivy: In this week, me and Minah finalised the graphic element that we need to use for the application and also discuss about the layout for the sticker. We also start to designing the final presentation slides. After consulting with Sir Mike say we have some proble with the colour of the application, so we need to discuss together to rethink to coour. Besides, Sir Mike also suggest us to change the background of the packaging in to white colour because it can make a contrast with the

doll and the word. On the weekly meeting, we divided our work for the content that we need to provided for the submission.

Student #5 Catherine: In this week we met with Sir. Mike to discuss the work we had done so far for every part of the project, I was able to get feedback on my social media post design, I was told that the testimonial needed to have clear text, show the person's face, make sure that the colours were able to contrast properly, same with the product preview, I had to show proper contrasting colours. My team members advised me to use the graphic elements that was suggested for the whole promotional and Ui/Ux content and to also make sure I used to the colour palette provided.

Student #6 Shofwa Alyadiena: In the final week we have with Mr Mike, we gathered and discussed with the rest of the group regarding our progress and what's left to do. I then adjusted the Wireframe a little more to figure out how to incorporate the "times repeated" for each lesson as requested by Ms Beatrice. In this week's group discussion, we separated our parts for the final presentation and submissions as well as set our final presentation date with the client.

W15: PROJECT PROGRESS REPORT

Consultation Notes:

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Next Course of Action:

- 1.

Reflections: *(to be filled individually)*

Student #1 Maisarah: On July 11th, we will give our final presentation. Ms Beatrice offered a few suggestions and responded, but she was mostly satisfied with what we had. Following the presentation, I focused on writing my personal blog and filling out the peer evaluation form for submission.

Student #2 Min Ah Kim: On Tuesday, we had our final prenestaion with Ms. Beatrice. We received some feedbacks from her, but she was mostly satisfied with our final report. Besides our final presentation, I worked on completing my blog, weekly report and peer evaluation.

Student #3 Yi Xuan: We had our final presentation on Tuesday, 11th July. Ms Beatrice has a few comments and feedback for us, but was overall satisfied with what we had. With the presentation wrapped up, I focus more on completing my personal blog entry and filling up the peer evaluation form for submission.

Student #4 Ivy: We have our final presentation with our client, Miss Beatrice. Overall the presentation was successful. Everyone present well in the presentation., Miss Beatrice also gave us

a lot of suggestion for this project. After the presentation, all of us will focus on completing the document that is required for submission. Besides, I also start to write the blog about this project.

Student #5 Catherine: We had our final presentation with Ms. Beatrice this work and got to work compiling all our work into one slide for the presentation. I finished the social media posts with small changes that my group helped with. I had to also change the app as we had designed a new logo, therefore I had to find a colour that worked with the logo and that would properly contrast it, I also changed some of the main colors of the app as I felt that there was too many different colours involved in the app making the screens look like they came from different apps. We presented it to the client and was given a lot of feedback and suggestions from her. After the presentation we all got to work finishing the work that we had left to do, I sent my peer evaluation and also got to work on the blog and fixing the figma as the app did not preview properly.

Student #6 Shofwa Alyadiena: This week, I was in charge of filling in the Ideation process for the project document. The process was simple, as we just needed to move our previous discussions into a text format to be readable and submitted. I also worked on filling in the peer review document regarding everyone's performance during the weeks of working on our project.