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ASSESSMENT TASK 3: SENSE-MAKING AND COMMUNICATING

INNOVATION IN COMPLEX SYSTEMS



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Assessment Task 3

1 Two Creative Intelligence and Innovation Practices with Insights

1.1 Description

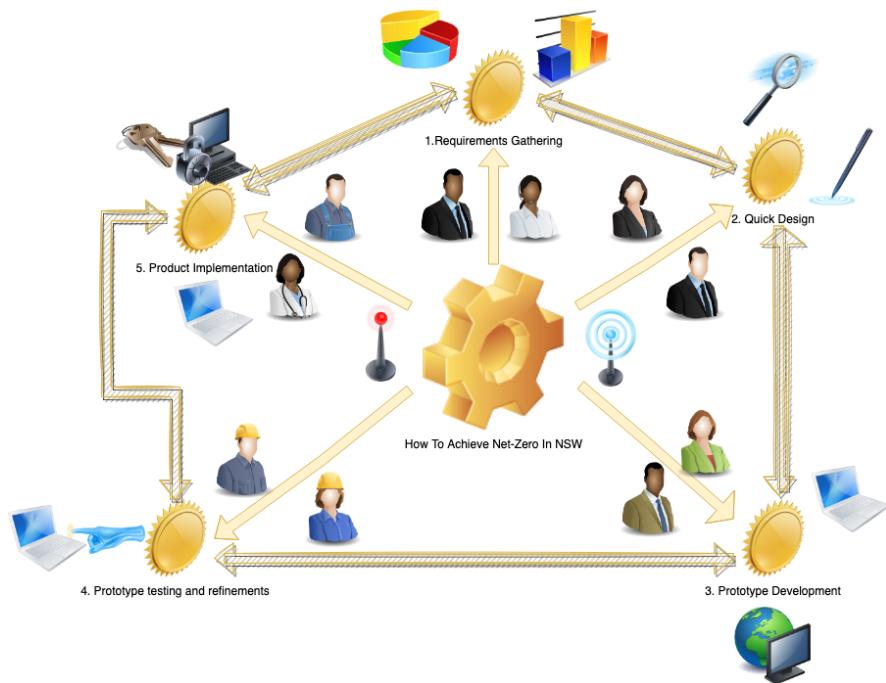
During my study in the course 'Innovation in Complex Systems (81546)', I leveraged two practices: prototyping and collaboration. These are rooted in creative intelligence and innovation and are vital in preparing me for a future full of possibilities.

Prototyping is a practice that involves producing iterations while getting feedback along the way. It bridges the gap between imagination and reality by allowing me to create tangible representations or experiments that test concepts and ideas. In my experience, prototyping was transformative when I was sketching designs for my superpower keychain token. Through prototyping, my mindset gradually expanded to accept the boundaries of mistake-ism, a key component of innovation. Using TinkerCAD, I visualized my design, constantly enhancing it until it looked appealing and was symbolic of myself. Mistakes are one of the most crucial components of creative intelligence and innovation, which has aided me in further improving and enhancing my existing idea for final implementation.

Collaboration is a practice that involves groups of people bringing a potential solution to life. It focuses on the need for a final solution that arises from group discussions and satisfies stakeholder needs within a dedicated vicinity while remaining efficient and affordable. If it is a product, it will be best if profits are generated, bearing on fundamental business principles. In my experience, collaboration for assessment task two has allowed me to explore visualization techniques alongside detailed diagrams and features of our monitor device that is made using TinkerCAD. It includes fishbone and system mapping, which encompasses stakeholder identification. Collaboration is crucial to creative intelligence and innovation, allowing me to accept a diverse range of perspectives and insights while ideating in teams. It broadens my view in developing a solution that meets the needs of most people.

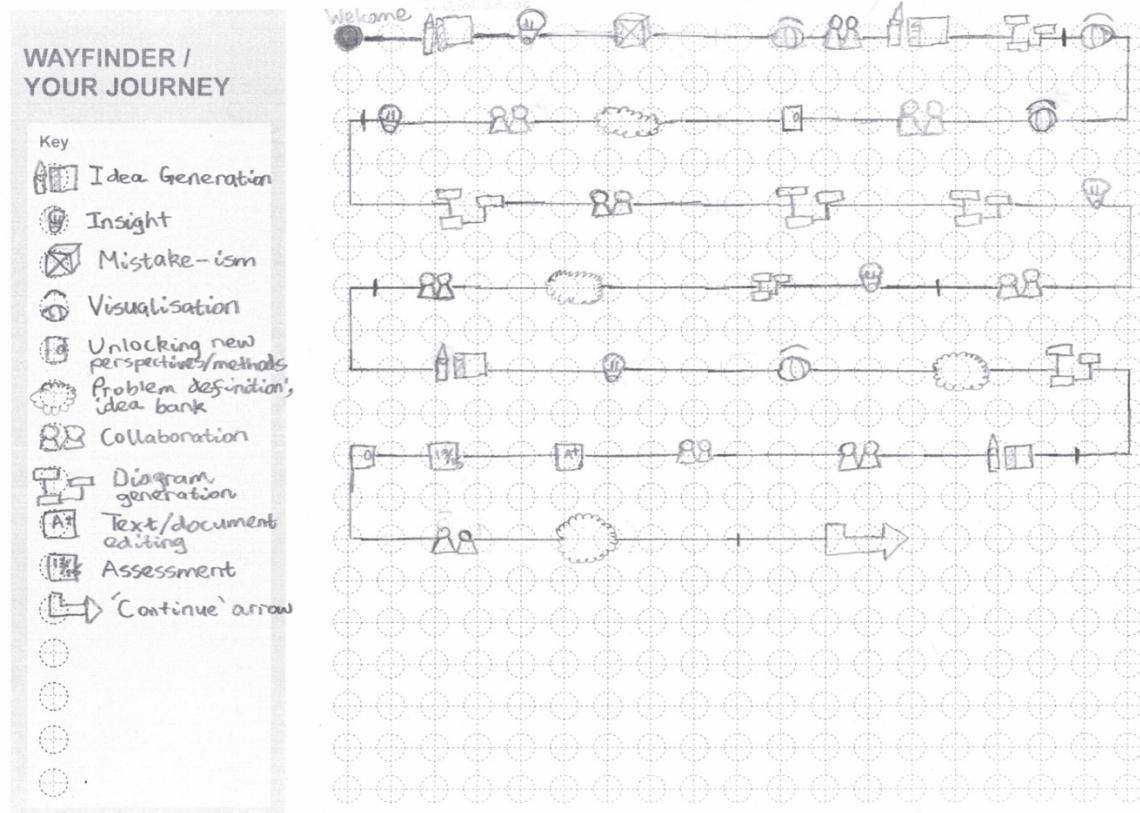
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1.2 Visualisation of Prototyping/Collaboration



2 Wayfinding Map

2.1 Map That Tracks My Learning/Sense-Making Process Throughout The Course



3 Sense-Making Synthesis

3.1 Description

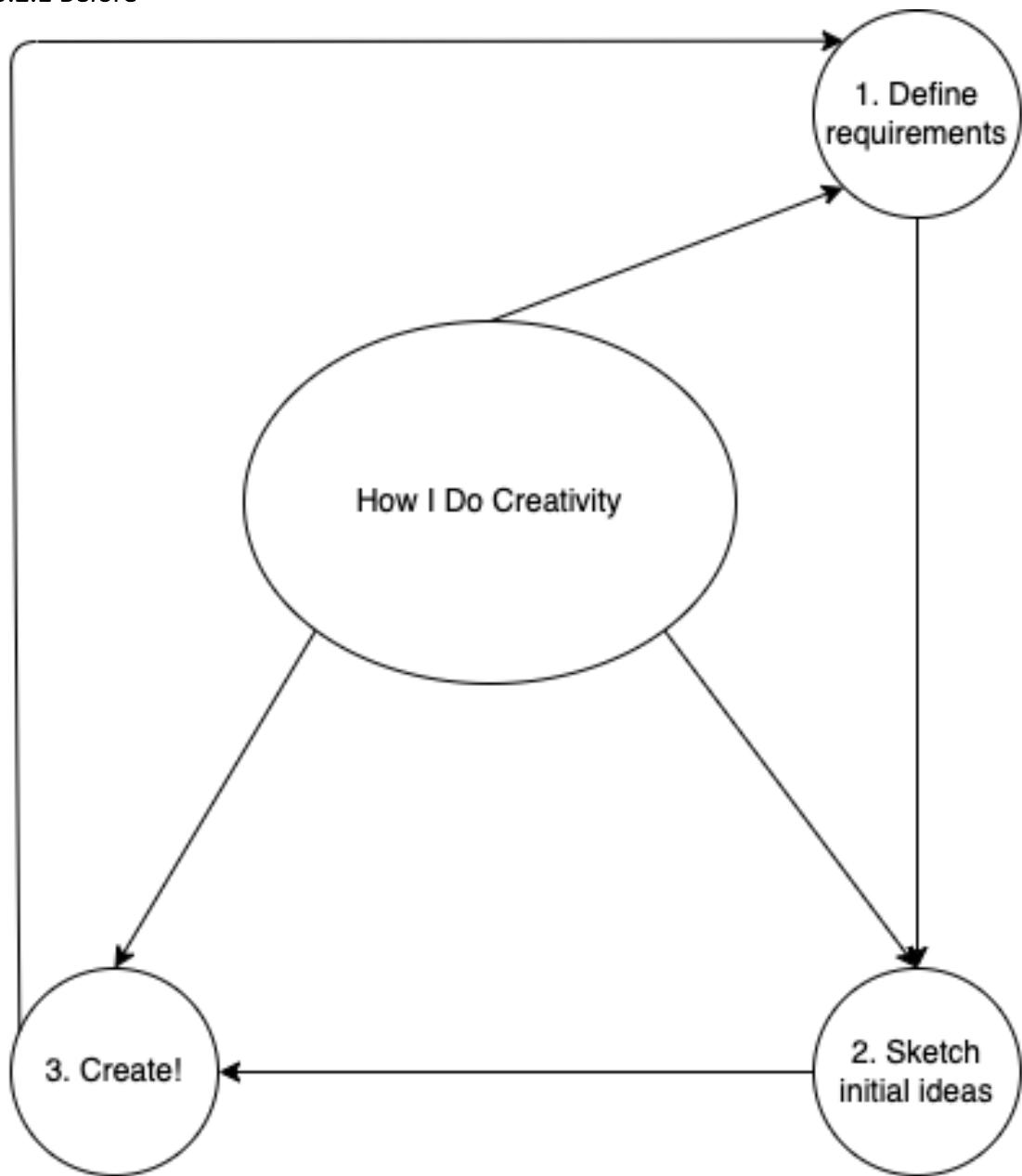
The intensive course, 'Innovation in Complex Systems (81546)', has allowed me to formulate connections and construct meaning. The various aspects of the core components of the school have been actively depicted through the wayfinding map, a significant asset for me to track my sense-making process on a journey that continues. From this map, I can see how the practices for an interdisciplinary approach to innovation and creative intelligence are connected and their importance within the scope of the course.

The two creative innovation practices, prototyping and collaboration, further contributed to my sense-making process. For example, prototyping contributed to my sense-making process as it led me to see how concepts within designs are tested and validated with experimentation. Prototyping highlights the importance of iterative refinement, which includes risk mitigation by identifying design flaws. Collaboration comes with prototyping, as prototypes serve as a communication tool for stakeholder discussion. Collaboration has contributed to my sense-making process as it highlights how a diverse range of perspectives allows the design to be viewed in a tangible form for all team members to accept. In this process, continuous learning results from relationships and trust.

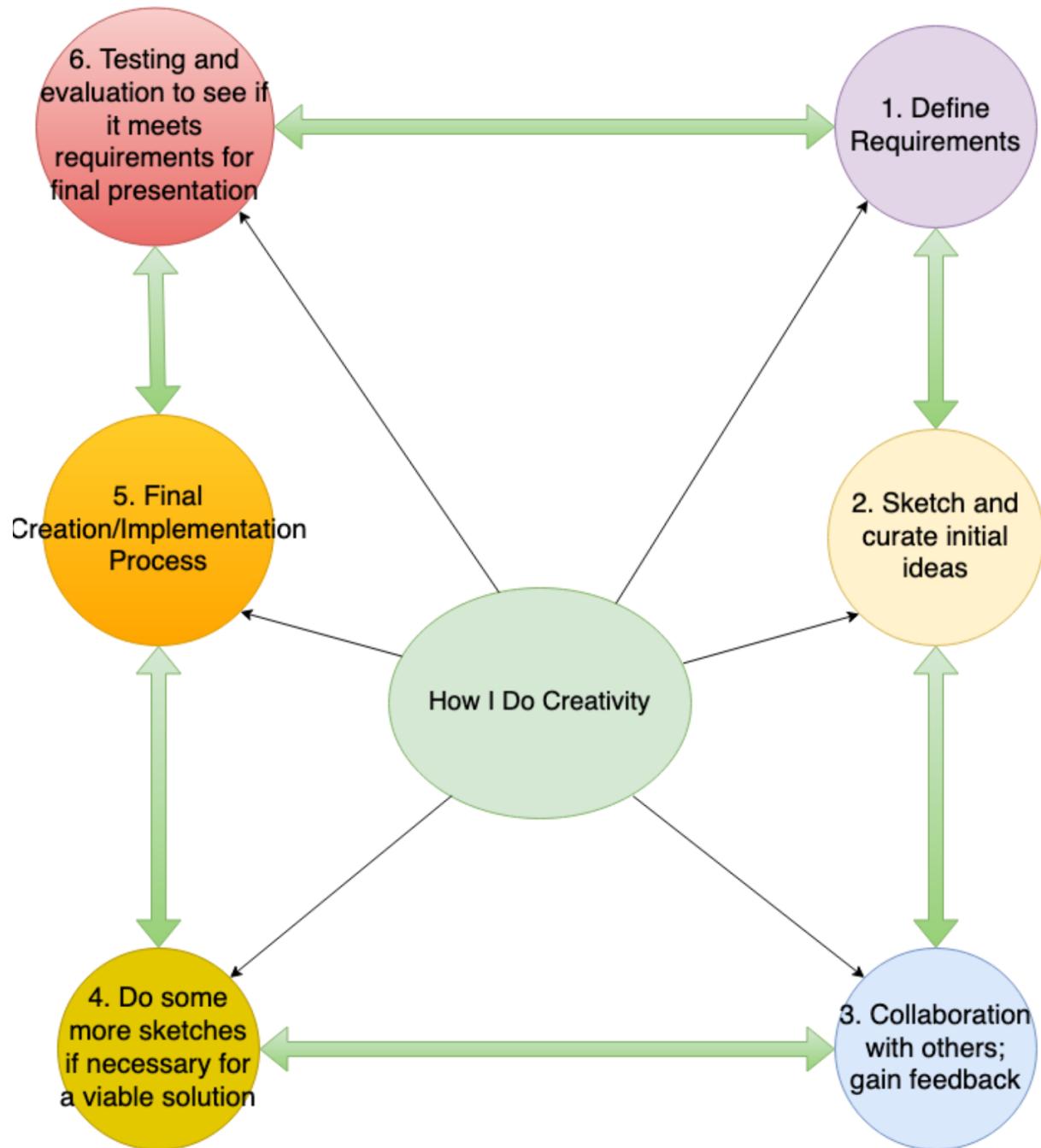
Realising the power of interdisciplinary collaboration was the single discovery that 'lit my fuse' within the course. When insights and solutions were generated for assessment task two, I saw the potential as students from different faculties, disciplines, and various forms of expertise engage with each other. The exchange of ideas and perspectives opened new possibilities alongside collaborative problem-solving. This held when we made the Gaddie pitch for the tradeshow showcase and decided how we presented our solution for NSW to reach net zero. Interdisciplinary collaboration sparked my passion to work on more projects in the future, as I saw the transformative impact it brings to drive innovation and address complex challenges.
(Text: 299 words)

3.2 Casual Mapping/Modelling Visualisation

3.2.1 Before



3.2.2 After



4 Appendices

4.1 Critical Incident Capture (Prototyping and Collaboration)

CRITICAL INCIDENT CAPTURE

INCIDENT DESCRIPTION

On the first day of collaboration, I had a considerable amount of energy as I am sort of hyped for what the final solution will be. My excitement was extreme, although it was a bit nerve-wrecking talking to new people for the first time. It seemed like everybody was more or less similar, but then I met someone who started PRACTICES talking to me immediately.

- | | |
|--|--|
| <input type="checkbox"/> Questioning | <input type="checkbox"/> Engaging with uncertainty/unknowns |
| <input checked="" type="checkbox"/> Collaboration | <input type="checkbox"/> Complexity, systems thinking |
| <input type="checkbox"/> Change-making | <input type="checkbox"/> Problem-finding, -framing, -solving |
| <input type="checkbox"/> Sense-making | <input type="checkbox"/> Applying, translating, remixing methods |
| <input type="checkbox"/> Prototyping | <input type="checkbox"/> Creative practice (mindset) |
| <input type="checkbox"/> (Social) entrepreneurship | |

INCIDENT DESCRIPTION

In terms of prototyping, my energy was relatively high as it is a hands-on activity. However, the nature of making my own keychain clashes with how I made models for IT graphics in the HSC, so my excitement was not exactly high. The discomfort is not as high, as making a keychain token isn't exactly a 'demanding' task. Many others have a moderate level of energy, though their discomfort PRACTICES is lower than mine's due to their

excitement being higher.

- | | |
|--|--|
| <input type="checkbox"/> Questioning | <input type="checkbox"/> Engaging with uncertainty/unknowns |
| <input type="checkbox"/> Collaboration | <input type="checkbox"/> Complexity, systems thinking |
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| <input type="checkbox"/> Sense-making | <input type="checkbox"/> Applying, translating, remixing methods |
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EMBODIED EXPERIENCE

You	Others
Energy	<input checked="" type="checkbox"/>
Discomfort	<input checked="" type="checkbox"/>
Excitement	<input checked="" type="checkbox"/>

EMBODIED EXPERIENCE

You	Others
Energy	<input checked="" type="checkbox"/>
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Excitement	<input checked="" type="checkbox"/>

WHAT ARE YOU TAKING FORWARD?

- Being with and engaging with new people is one of the key principles of innovation.
- It can open my perspectives as not everyone views things the same.
- The industry is like this, so collaboration is essential for success.

WHAT ARE YOU TAKING FORWARD?

- Something that may seem daunting at first to complete probably is not when you get into the rhythm of it.
- Do not draw on previous experiences to gauge something new; work at it with fresh eyes.

4.2 Reflective Notes (All Days Of The Intensive Course)

4.2.1 Day 1

Reflective Notes - learning Journey

Date: 26/06/2023 (Day 1)

Topics: Prototyping, Mistakes & Visualisation

Reflection: On the first day of the course, it seemed a little difficult to comprehend the course as I had anticipated it to revolve around how computer systems are complex. However, later I found that the course is very alike to a course that I have completed previously, Communication For IT Professionals (31265). The course really got us to ponder the world around us, getting us to make meaning from it, from things such as 'How might we' statements. With the first task, it reminded me of Industrial Technology Graphics, a subject I took for the HSC. However, I did not do any 3D printing for that so it took me a while to get used to the rhythm of things. Overall, it was a fun and insightful experience.

4.2.2 Day 2/3

Date: 29/06/2023 (Day 2)

Topics: Mistake-ism, Visualisation and Perspectives

Reflection: From today, the previous day's briefing on mistake-ism really sunk in. I realised how making mistakes is a crucial component of innovation, which can lead to greater solutions that meet more requirements. I have engaged with visualisation techniques, with symbolic images and charts and diagrams, for assessment task 1. This allowed me to explore the philosophical, to gain a wider perspective of the world as I questioned numerous aspects of animal cruelty and AI/human interaction. From this, I have come to realise the extent of perspectives, regarding that not everyone views things the same within a team. The perspective relay, although absurd at first, was crucial for me to unlock new insights into the world around me, which builds to address ^{assessment} task 2.

Date: 3/7/2023 (Day 3)

Topics: Mapping & Insights

Reflection: Today's sessions

On mapping and insights has further allowed me to see and clarify the scope of the problem alongside its context. I was asked to map the entire system while highlighting potential stakeholders using the process, which was a tiring but inspirational process for the final requirements of assessment task 2. The clarifications of what an insight is and the 'indigi-system' Sprint has also been monumental for us to further define and explore our big idea, turning it into reality in the end. We had also been briefed of the importance of collaboration, and the platform of LinkedIn is powerful to facilitate that.

4.2.3 Day 4/5

Date: 6/1/2023 (Day 4)

Topics: Assessment 2A, Fishbone Diagram, 2B briefing

Reflection: The group work experience for assessment 2A has been mostly pleasant, with everyone doing their part and we completed it in due time. However, we forgot to print out our insights for sharing and had to use post-it notes. After sharing our insights for 2A, we were briefed on some more intricate diagrams which included fishbones. I found the fishbone diagram to be a bit weird in the beginning then I realised the value it can bring to our idea generation and made a complete one for our team (more of a collation of all four insights that we had). The part of getting us ready for task 2B was intriguing as I really enjoy demonstrations of innovations, as seen in real-life. I became excited for that day afterwards.

Date: 10/1/2023 (Day 5)

Topics: Gaddle Pitch, Problem Space, Ideating, Theory of Change

Reflection: The previous session that has led us to develop a Gaddle pitch while redefining a problem space has been influential. I saw the level of conciseness that is required and it led me to first consider it as a 'Shark tank' style, but was later told that it was slightly different. We refined our problem space by developing 'How might we' questions for my group to focus on in terms of our solution. The ideating process has proven effective, as we debunk the problem into smaller chunks using tools like questioning 'Why?' and the 'straw man proposal'. The 'theory of change' was instrumental to get us to further think about our design solution through the processes of a logic model and factors like assumptions. Testing our solution upon implementation is also extremely crucial to ensure success.

4.2.4 Day 6

Date: 13/7/2023 (Day 6)

Topics: Collaboration / Tradeshow Showcase

Reflection: For the next few tasks, assessment task 2B and C, we went into careful planning to achieve the best results as we can. We managed to complete 2C early enough to have time at the end to make edits and ensure that it is entirely our own work prior to submission on Canvas.

We did an example pitch on the morning of day 6, and got valuable feedback to make edits. To address that, we implemented captivating devices such as rhetorical questions before venturing into our overall idea of focus. We wrote up a draft of our script in Google Docs, and improvised upon it. Although this may not have been a proper Gaddie pitch, we have had a worthwhile experience as we have been congratulated for having a prototype hard product,

visualisations in Timber CAD and ample primary research for instance. This was also when we had set up our devices for the industry leaders, students, and other staff to savour.

(Day 6 - continued)

Setting up our project did not take long, and we had all of our materials up very soon. Not even halfway of the event, an investor (Joseph Alles) came and gave us his contact details. We also got assessed for 2B shortly after, meaning the bulk of the work has been done.

Our team, being one of 6 to 8 teams chosen from a pool of 36, felt great to have won. Our careful planning and coordination between group members is one pivotal aspect that has enabled success, and what we have decided to present at the showcase. We are now deciding whether to make this into a real business or not, or enlist into the three P's program. These will be very vital for us in industry if we decide to.

Overall, the 'Innovation In Complex Systems' course has provided a pleasant learning experience. I have come to understand the complexities of the world around me, and see that not everyone sees it in the same way as one another. The diagrams that I have had to produce are crucial to clarify the project scope, so that viewers can better see ~~your~~ idea and how they link to various components. I learned that it is okay to make mistakes along the innovation journey, and frequent feedback from stakeholders ~~over~~ is also essential for designing a solution that can adequately respond to the problem and context. I also learned how prototyping is influential for success and collaboration has been important as multiple people with ~~designs~~ varying levels of expertise comes together to formulate deeper insights and ideas into a project.