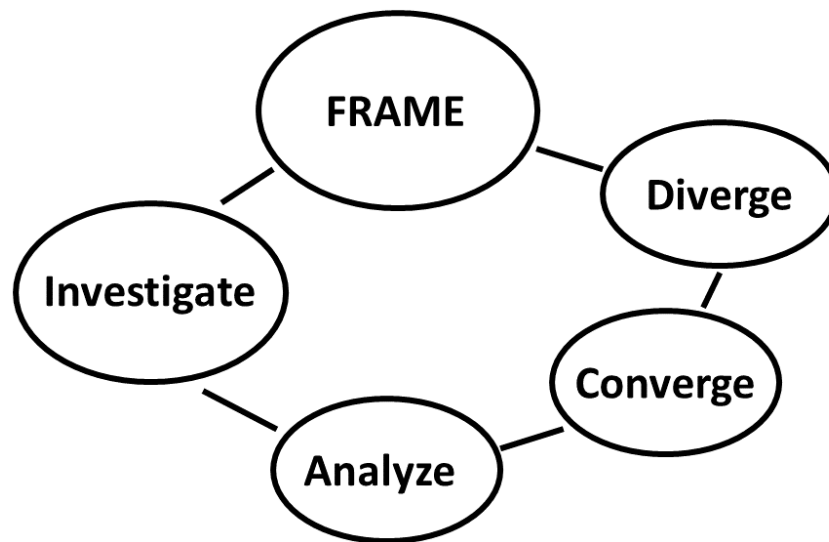Frame – The activity of understanding a problem. This is the stage where I gather the main concepts as well as analyzing the details to fully understand what my current situation. All for the purpose of setting up the path for the future. After framing carefully, I will have a sense of what can be done and what needs to be done. This is an important process since it is the starting point, if I fail to frame carefully, then the entire design has the potential of heading down the wrong path. For example, when writing a design brief, my praxis team and I failed to frame an opportunity correctly and this resulted in us violating a constraint. (Appendix [1])

Diverge – Coming up with as many ideas as possible. The stage where I brainstorm very hard to cover every aspect of my knowledge and present them. The purpose is to build up a playground of options, so for this stage there is no wrong option. The more ideas I can come up with, the more room I will have to work with it. (Appendix [2])

Converge – Looking through all the ideas and pick out the best one among them. Having a lot of different ideas, it is time to critically think about which one is the most suitable based on a number of factors such as feasibility using different method of approach such as a pugh chart or pairwise comparison. This helps me understand about my what is possible, and more importantly, what's more possible. This process helped me a lot for my past designs, for example the design critique during the first semester of praxis, my team and I was able to finalize a best design that performs well in all categories from a list of many possible solutions. (Appendix [2])

Analyze – Examining the final design carefully. In this stage I would do a check of the final design to see whether it matches my values, such as being safe and usable. I want to make sure this design is good enough for its purpose. I am a perfectionist, and my design style is that for every product I want to make

sure it will do its job very well. For example, for my StarCraft game, I would carefully analyze my code and run test cases to make sure there is no bugs at all. (Appendix [3])

Investigate – The analyze stage will lead the design here. Where I would investigate and research a lot about different aspects of the design solution to make sure that it will successfully do its job. Or to find out that it is still not good enough, where I would then target my research to look for ideas and solutions that I have not considered during my diverging stage. Having more knowledge, I can also start another round of design by re-framing my original problem. This process is important since it is the only process where I will gain new knowledge. If I didn't have enough background knowledge for a design project, then my solution will likely end up narrowminded. Having more knowledge will set me up for another round of design and my final solution can be potentially improved. (Appendix [4])

Appendix

1. The team's framing violated the veto list, and failed to treat all people with equal respect.

   · Homeless people in the GTA

2. From the feedback of Design Critique, converging and diverging was outstanding.

The correctness of application of engineering tools for assessing (converging), exploring (diverging), representing, verifying, and validating design concepts.				✔

3. My github page with the StarCraft game: https://github.com/James-Cow

4. Library Studio during praxis 1 for developing the techniques of how to research, it shows that the praxis course put a great emphasis on researching. The professors are also constantly enforcing the importance of research during lectures.