Grade 8

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| Alia Ragab |

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| Design Technology 8S2 | Phase 5: Evaluation phase |

**Evaluate tick list -**

**(1) Evaluation of product – included in Evaluation section.**

**(2) Testing –**

After all of the feedback that I received from the clients, I think I have a better understanding to what I have done well, and what I have done not so well. The feedback that I received was very positive, but there was some constructive criticism, and I got some tips on how to make my shelter better. I was told that I had done a great job with the spacing, and the shape of the shelter, and that the right amount of people could fit into one shelter. I also got told that the material I used was a very practical one, as it fitted the budget, and it was great after finally testing the product. I also received feedback on the amount of windows, and the client told me they were good, but advised me to add a door. They liked how my product was simple but also involved a lot of modern technology that was easy to install, and beneficial to the life inside the shelter, as a victim. They had a concern about how easy the shelter was to build, but after re-looking the shelter, they changed their mind. Overall, the clients like the shelter, and thought it was very practical for their emergency rescues, and that it fit their aims.

**(3) Design Specifications -**

Below is a list of my specifications, with a brief paragraph on whether or not my final product fulfilled each of them.

-fulfills - does not fulfill

1. **Materials:** 

*The material I used is a newly developed material that is concrete, but in a form of cloth, making it easier to handle, and more mobile. While designing my product I made sure to use this material, because it was developed to satisfy all victims in all weather conditions, and it was very mobile. My final model does fulfill this specification.*

1. **Shape:**

*The original shape that I was planning on using was an oval-like shape, because it seemed easy to fold, unfold, and build. However, I did not stick to this specification because I found that after designing a few oval shaped shelters that the rectangle shaped shelter would fit a lot more people and would fit my aim a lot better than the oval shaped shelter. In conclusion, no my model did not fulfill this specification.*

1. **Transportation:** 

*Transportation is very important in this case, because it will be shipped by air, to insure that it comes as quickly as it can. I have designed my shelter to be as mobile as possible, and I have made sure that it can be transported with ease. However, I have to test this specification to make sure that I have fulfilled it, but based on my studies, and my knowledge on the product that I designed I think it does fulfill this specification.*

1. **Space/Size:** 

*The ideal amount of people inside one of my shelters would be around 8 to 10. I would aim to place 2-3 families in one of the shelters. And based on all my knowledge on the product that I designed, I think that 2 – 3 families would fit in each of my shelters, because the measurements are built to fit that certain amount of people, and the shape is based on expanding the amount of people who would fit as much as can be. In conclusion, yes, my product does fit this specification.*

1. **Manufacturing time:** 

*The time that it takes to build one shelter on the spot is very important, because there is a really high demand, because of the amount of people that were affected by the natural disaster. Ideally, the shelter should take 10 minutes to build, but I would be allowing a maximum of 15 minutes. Based on my knowledge on the shelter that I created, I think that my shelter would be built in a maximum of 15 minutes, because it’s a simple shape, and there aren’t many pieces. Yes, my product does fit this specification.*

1. **Age/Families:** 

*I am aiming to fit in around 2 families into every shelter, and as there are a lot of grandparents, and older people that are pickier, I made sure that they have enough space to feel comfortable, and make sure that the small children also feel safe, and have enough room to sleep. My final shelter does fit this specification because that was one of my main aims for the shelter while I built it.*

1. **Colour:** 

*I don’t really think that the color of the material is a problem, because the clients did not specify a single color. Concrete cloth comes in one color, which is grey. My final product does fit this specification because since I have chosen the concrete cloth, the colour of my shelter cannot be anything other than grey.*

1. **Endurance:** (?)

*The endurance is a very important aspect of the shelter in general, and it is how many times this shelter can be used. I am aiming to be using this one shelter for around 7-8 years, which is about maximum 8 emergency rescues for each shelter. While designing my shelter I picked a material that is supposed to last a very long time, but I did not test my shelter, so I am not 100% sure that my shelter is going to last that long.*

In conclusion, I think that I have fulfilled most of the specifications that I had listed during my investigate stage, and I have created an ideal shelter compared to my specifications, and its goal. The only specification I did not fulfill, was probably the shape one. Other than that, my shelter fit everything I aimed for it to fit.

**(4) Social significance –**

My product has a very high benefit for all of the victims in areas where there is a high rate of natural disasters, when a natural disaster occurs. The emergency shelter that I have developed’s social significance is that it not only provides an area for all of the victims to rest, but it also provides an environment for everyone to calm down, and settle in until they have recovered from the shock. The emergency shelter can also inhibit the victims until they think of a place to live, by either build a new house, or inhabiting another area. The emergency shelter is a safe and calm place where the victims will also eat, drink. The victims will basically have a second home, where they will settle in. it is planned that a lot of people will inhibit the shelter, therefor a lot of people will benefit from the shelter that I designed.

My product also proves really helpful in emergency situations because it is fire proof and waterproof which means it withstands a lot of different weather conditions. It also insulates heat, or coolness, depending on the weather conditions they’re placed in because of the type of material that I used. This is very useful because it will impact the victims even more positively, and help them survive the tragic happening in comfort. Another benefit that comes out of my product is that all of the shelters can be shipped and build very quickly, which helps the victims because it assigns them a home extremely quickly, making them adjust to the conditions with more ease, compared to staying outside on the floor. My product could also be built by someone that has no experience building it, which adds up to how useful it would be in circumstances where there are not many staff that could be sent with ease. I think that my shelter has a very high level of social significance because it is very useful to a wide variety of people, and it can help them in a large scale of situations.

**(5) Improvements -**

When it comes to my final product, I think I can improve a few things. I think that my design is very efficient especially because it is simple, but modern which are two things that would improve the accommodation in an emergency shelter. I think I could improve my product by making it larger, because the more people fit in it the better. I could also try and make the product a lot more mobile, by folding the material I use, instead of shipping it in pieces, but that would require me to shift the design I created at first a little. I also think that my product could be improved if its endurance was tested. I could see how I could improve the endurance if I knew whether it was effective or not, but I have not tested it. I could also improve if I did test all of my specific specifications, because then I could pin point all of the areas in which the shelter is lacking quality, and I could take on each point and analyze what I could to improve them. Other than that I think that my final product was of high quality and that even though there is room for improvements, I think the shelter has reached the highest level of effectiveness that is possible for that design.

**Investigation -**

The investigate phase was the first summative part of the Emergency Shelter project. It was my first time stating actual DT work that was part of the phases we had to complete for our entire project. As I was unfamiliar to DT, I did not know exactly what was expected. I researched a lot of the shelters and I learned what was expected in a regular shelter, and what points they included. It was my first time writing a design brief, and I think I could have improved my design brief a bit, by being more familiar of what I was supposed to write, by researching more than I already did. I think I did a good job for the researching part, in which I wrote about shelters that I researched, and evaluated them.

I gained some knowledge about emergency shelters. I researched a lot of tools and found pictures of them, gaining knowledge about what I can use while actually building the shelter in the end of the project. I think the two parts I did best when it came to the investigate phase were the two researching parts. I think I gathered a sufficient amount of information, and I submitted as much relevant knowledge on the subject as I could. I think I also did a good job organizing, and creating the citations for all the websites that aided me while researching, and I had cited them all correctly.

If I were to re-do this phase, I think that I could have expanded on my specifications, and tried to improve them to make them more relevant, and I would add on a few more. Now that I had finished the whole project, I realize that the specifications affected the rest of my project, because they kept coming back in other phases. Other than that, I think that my investigate was done well, and even though there are some parts that I need to improve I think I did a fairly good job. After receiving the feedback, and my grade, I realized that I improved a lot from last year’s investigate stage, as I worked a lot harder, and I understood the task really well. I am proud of the work that I submitted.

**(2) Design -**

The design phase was the second phase of the design cycle, and I created 6 different designs for the emergency shelter, taking to mind all of the different shelters that I had researched in the previous phase. After designing them, I scanned them and added paragraphs explaining how they work. I tested all of them against the specifications, and received the client’s feedback on all of my designs. I finally picked a design and then created 2 more detailed drawings of it, and uploaded them too, and evaluated it against the specifications again in further detail. This phase proved to be quiet entertaining, and I think that I managed to complete all of it properly. I evaluated everything in great detail, and I think I wrote up the client’s feedback really well too.

If I were to re-do this phase, I think that I would have tried harder with the actual designs. Although they are neat, and they look okay, I think I would have tried to make them look more professional and three dimensional. I also think that I could have also made them look more properly drawn, but as I cannot draw shapes that well, I think I tried my hardest to provide the highest standard work. I would also try to have started working on this phase earlier, because I was very short on time when I did start it, as I started it late, and I was working until the last minute, which was extremely stressful. I think I could have improved the paragraphs explaining the designs, and the labels in the last part, where I had to draw on a more detailed drawing. I could have went into more detail when it came to the labels, and add in more labels that would make the exact model make a lot more sense, and make it look clearer.

Overall, I think I did a good job with this phase, even though there is room for improvements. I think this phase was the hardest for me, and overall it was, in my opinion, the one I did with the least quality, but in the end the feedback I received was very positive, and I was happy because of it.

**(3) Plan -**

The planning phase was the phase where I had to plan all of the steps that I would carry out to complete the model I created. The steps had to be detailed, and at the end of the planning steps, we had to evaluate every single step, giving warnings and tips on how to do them correctly, or what safety precautions I needed to take. I think that the planning phase was one of the phases where I feel I did best at (along with the create) I think I organized my time really efficiently while doing it, and I learned from my mistakes last year, and I added in a lot more catch-up days in the right places.

I think that I organized my plan very well, and I ended up following it most of the time, because when I wrote it I tried to make it as efficient, as possible. I also tried to give myself a lot of extra time to work on each step, because I know some of them maybe be harder to do, compared to what you first imagined. I think the most challenging part of the plan was to evaluate every single step, because when you have a lot of steps, it’s very time consuming, but I think I still did a good job at evaluating them.

Overall, I think I did a very good job during this phase, and I can’t really pinpoint a specific area that I need to improve a lot, but however I think I needed to improve how I organized my time when it came to writing up the plan, because I think I also left it till last min ute; but not too last minute. I still had a long time to complete it, and I made sure to look over it several times, to make sure that it was of high standards.

**(4) Create -**

In the create phase, I created a model of an emergency shelter that I have been planning to make for the past 3 phases. I think that I have been working very efficiently throughout the process of making the model, and heavily depending and following the plan. I have made a few adjustments to it, such as removing the printed picture of the shelter, and increasing the length of the plastic tubing and the pine wood that I used, I tried very hard to follow all of the plan’s steps, but at one point, I couldn’t keep up, and I was always a lesson behind since that time. During the Process Journal, at around the 3rd lesson we were working on it, I did not write it up, which caused a problem for me as I went along with the rest of the days, because I struggled to remember exactly what I had done, but in the end I remembered it all.

If I were to re-do this phase, I would do a few things differently. I would try to increase my efficiency, so I finish everything quicker, so instead of being late, I could be a bit ahead, which would help in the future. I also would come in at break times if I am not caught up, so I could catch up, and keep on track again. This is defiantly something I will be doing during the next project. I will also make sure that if I am confused about how to do something, and I’ve already been trying for a long time, I could ask Mr. Thorburn for some guidance or tips. I would also try to write up every single day all the way through the phase, because it is more accurate and makes things easier by the end of the phase.

I have highly improved my create stage phase since last year, because this year, I actually did keep up with my plan, and I did what it asked to do in order without lying in the process journal, which is what I did last year. I think I also did fairly well with the actual model, despite the fact that it is a little un-neat. The model didn’t exceed the height or width limit, and I am happy about that because I planned out all my sized to be exactly right.

**(5) Evaluation (of product) - (1) Evaluation of product**

I think the finishing product that I designed fit all of the standards that I wanted to achieve. It was properly put together, and overall it fit almost all of my specifications, making it exactly the shelter that I was aiming to build. I thought of all of the points that I needed to add, and I think it is the best shelter it could be. If I had to try and develop the shelter even more, I think that I would try and include a storage space inside, and I would try to fit more people inside, and add a second door. I think I should also start testing everything that I said I would test, even the smaller details that I didn’t put into consideration. I would start some experiments on the fabric I will be using, such as testing if it was fire proof, or if it was stuffy inside I would also check to make sure if it was easy to clean up from the inside. I think that I put in my best effort while creating my final product, and I really gave it my best shot. I think that I designed a very good and affective shelter that met its purposes, and it will be very useful to my clients and all of the victims that are suffering from the effects of any natural disaster.