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Mr. Speice

Independent Study and Mentorship 4B

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Product Proposal

Purpose

Throughout the whole year so far, my studies have been dedicated towards all of the aspects, especially psychological, of pediatric Occupational Therapy. For my original work, I created a virtual three-dimensional model of a “Sensory Room” using Google Sketchup. In the room, I incorporated multiple structures that allow children to develop both fine and broad motor skills while interacting with a relaxing and sensory-evoking environment. For my final product, my goal is to construct the physical prototype of this room. Upon completion, I will present both the model and the advertisements created as part of my original work to the public, perhaps in Frisco Commons. I will allow younger children to interact with my small structure while I explain its function to their parents. Therefore, the purpose of my product will be to serve as an inspiration for ways that Occupational Therapists and parents in general can develop the motor skills and situational awareness of their children.

Review of Skills and Research

Most of the knowledge that I will put forth into this product has come from informational interviews with professionals rather than from independent research on databases. For instance, much of the inspiration for the physical design of the product has originated from my visit to the Speech & Occupational Therapy of North Texas office, where I interviewed Elissa Cashman. I

noticed that in the room where therapy is usually undergone with younger children, there are many soft brightly colored structures for them to play on. A few of the components of my structure, such as the squishy chair in which children would feel compressed and the spinning chair on which they would see their surroundings from infinite different angles, have drawn inspiration from this particular office. Both of these components are meant to help improve children's ability to interact with their surroundings, and the squishy chair especially helps develop their physical sensory awareness.

Additionally, I initially placed the sparkling string lights around the edges of the structure so that children have a way to understand how their actions can impact their surroundings. However, after interviewing Alice Petranek, I have come to understand that another significant purpose of the lights is that children are able to manipulate their surroundings to better fit their needs. I came to this conclusion after Mrs. Petranek explained to me how she worked with one of her patients who has difficulty seeing contrasting colors to change the colors of various objects in her home so that she could interact with her surroundings more easily. Both of these informational interviews with professionals, combined with knowledge that I gained from researching the psychological implications of Occupational Therapy, have equipped me to complete my final product successfully.

Methodology

Going into this project, the primary and incredibly fundamental step that I must take is to research basic principles of small-scale carpentry. The structure will not be required to support the weight of children because it is only a prototype, but I must find a way to make functioning spinning structures as well as a variety of other components. After developing an understanding

of the physical methodology that will be required in order to complete the product, I will proceed to begin building. Along each step of the process, I will refer my work so far to my mentor, Alice Petranek, for advice on how I should direct the goals of my structure to better fit the Occupational Therapy-related needs of younger children. This means that I might eventually find it necessary to alter some aspects of my original digital design to better fit the needs of Occupational Therapists in the field. By no means will my final product perfectly resemble my original work model.

My construction of the product will begin by building the framework out of wood boards, and next I will decorate them to make them aesthetically pleasing and appealing to children. I will then individually create each of the different components of the structure with the materials explained below. After securing all of the elements within the structure and finalizing its physical appearance, I will transport it to Frisco Commons. There, as the final stage of my product's execution, I will present it to the public and hand out copies of the advertisement I have already created.

Materials

Obviously, my materials will include several power tools and planks of wood to create the base of the structure. I will then paint the structure with preferably glossy-textured paint to create an appearance more attractive to children. My next step will require a great amount of further research and application of physics principles in order to construct certain components like the spinning chair and the ladder. To create the squishy chair, I must use a sturdy yet soft and alluring fabric and will create several cushions that will form the sides of the chair. In order for it to have a compression effect, I will need to put a great amount of stuffing into the cushions.

Because this is a prototype and not an actual model, the financial obligation to this product will not be too great.

Using similar fabric and the same stuffing as I did for the chair, I will create the safety pads that will be super-glued around the edges to the floor of the structure. For the drawing board, I will use a basic small sketchpad purchased from a craft store and glue it to the wall of the room. I will attach a small basket below the drawing board to hold the crayons and markers that children will use. I already own the fairy lights that will be draped around the edges of the room. For the curved wire with beads on it, I will purchase a thin metal wire and firmly shape it into the desired structure, and then place colored wooden beads on it before attaching it to the floor of the structure by drilling holes in the wooden floor and placing the ends of the wire through the holes.

Conclusions

Through the completion of this product, I will have both finished a very physically challenging task and provided the Occupational Therapy industry with inspiration to create new and innovative tools with which they can help their younger patients to develop motor skills and situational awareness. I look forward greatly to working alongside my mentor, Alice Petranek, to complete this project. Through the creation of my Sensory Room, I hope to greatly improve the lives of young children in my community and inspire Occupational Therapists and parents alike to help their children in the development of essential life skills.