

SEF Final Reflection

The purpose of my research project is to measure physiological processes associated with stress and anxiety among adults with Autism Spectrum Disorder. Wearable biosensor devices were worn to measure these processes. We then measured the effectiveness of various coping strategies, specifically, equine therapy. When the participants were at the horse stables, I collected data on each of the participants. This data included what they were doing at the stables (riding, cleaning, partner activities, etc.), the times they started and ended the activities, and how the participants acted while completing the activities. The participants then went to the Canopy Center. Here, the other researcher and I had the participants complete a vocational matching task for 15 minutes. During this 15-minute session, we collected data on the participants every 20 seconds. We recorded their respiratory code (neutral, focused, tense, calm, active), whether they were on task or off task, and if they had any disruptive behaviors during the 20 second interval. Once the session was complete, we charted the data.

When reviewing the data, we noticed that four of the participants demonstrated a decrease in disruptive behaviors during the 15-minute sessions when they received intervention (equine therapy). 3 of the participants had an increase of on-task behavior during the sessions when they received intervention. There was not a noticeable difference in the participants' respiratory codes during baseline sessions or sessions where they received intervention.

In this project, we were able to accomplish our original objectives and complete the goals that we made during the project. As a research team, we were able to be organized, maintain an effective method of communication, and stay up to date on our data summaries after each session. During some sessions, we ran into a few obstacles. For example, we noticed that once the participants completed one vocational activity during the 15-minute session, they thought

that they were done, they wanted to leave the room. We tried to brainstorm different ways that we could keep the participants on-task during the entire session. To solve this problem, we prepared multiple tasks and activities for each of the participants to complete. If a participant finished one of the activities, we gave them before the session ended, we had another one ready to give them so that they could stay on task and not try to leave the room. This method proved to be very successful throughout the rest of the research sessions.

The Student Engagement Fund gave me the opportunity to participate in this undergraduate research project and it has had a very big impact on my academic experience. This research project taught me various data collection procedures and ways to create data summaries, which I know will benefit me greatly in my future career as a special education teacher. I also learned how to prepare wearable technology devices to help measure stress levels. I now have a deeper understanding of these types of technologies and would be able to possibly implement them into my future classroom. In addition to all of this, my experience with the Student Engagement Fund has helped me further develop my collaboration skills. During this project, I had to collaborate with other researchers, the individuals that are a part of the Student Engagement Fund, my faculty mentor, as well as the personnel in the agency that we were working with. I also gained a lot of experience in working with adults with disabilities. All of these skills that I have developed throughout this project will help me greatly in my academic experience as well as my future career.