

Lucy Chen

Capstone

Ms. Shrader

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Roles of Psychological Concepts in Influencing Behaviors of Residents for Environmental Protection

This project began in October 2020. I decided to do an environmental protection project in my neighborhood. As for the academic research part, I focused on how psychological concepts worked in the educational system. I studied concepts such as gestalt perception, Ebbinghaus's forgetting curve, and positive reinforcement in the research. The goal was to explore the possibility of applying the psychological concepts in education. As for the practical component, I employed these theories to help both children and adults follow garbage classification policy. The goal was to raise the awareness and improve common understanding of garbage classification policy largely. The project did not make a considerable increase in the score of environmental post-assessment compared to pre-assessment. At least, it did not make much impact as I predicted. I concluded several reasons for the failure, which will be mentioned later in the paper.

As for the academic part, I spent much time on deciding how to organize my essay. I struggled with selecting sources and deciding the positions of the sources in the essay. My goal of this academic research was to develop how psychology can be used while teaching. Memory, motivation, and cognition is always a key component for a student. I was not merely putting theoretical hypothesis of gestalt perception, Ebbinghaus's forgetting curve, and positive reinforcement, but also looking for pilot studies that have used those concepts. Then I made the conclusion about possible and practical ways of applying psychology into education.

In the process, I was required to read many studies and organize them into my essay concisely. Or else the readers would feel tired while reading my essay. Skills required to avoid this boredom included effectively selecting articles with the highest relevance (since there will be many articles), summarizing the ideas in others' long academic papers for my use, and putting the evidence concisely in the position for the strongest logical connections.

I also learned how positive reinforcement could substantially impact or motivating young children to behave well as others expected. This was because they wanted to receive a pleasurable stimulus, and for children, many things could incite their interests. I also learned how gestalt perception could subconsciously influence people to place things with similarity. I also knew that using Ebbinghaus's forgetting curve to recall concepts learned repetitively could make the memory more long-lasting. I also knew how early school in the morning hindered the best performance of children.

Furthermore, I improved my skills in writing research papers too. My first draft looked awful because I did not make many evidence-based claims. Now I realized that every sentence in a research essay should paired with reliable evidences or data without personal over-interpretations. Adding overwhelming statistic could persuade readers to agreement easily.

As for the practical component part, I applied what was learned in the academic research. Since my ultimate goal was to protect the environment. I needed to guarantee that the residents reinforce the garbage classification policy stricter. I did two things: selling garbage bags for adults with diagrams and distinctive colors and hosting explorational games for children in the neighborhood. Both two parts and separately cause positive influences on the behaviors of the residents in sorting garbage. Selling garbage bags employed the gestalt perception to make sure adults toss the garbage in the correct bin by matching the color. Positive reinforcement motivated children to participate in my game. As said in Ebbinghaus's

forgetting curve, residents were exposed to the stimulus of policy several times, from pre-assessment to activity to post-assessment. The skills used in the practical part includes choosing diagrams on the garbage bag, communicating prices and dates of delivery with garbage bag manufacturers, attaining help from the community committee, designing concise and practical surveys, designing complicated game maps in the neighborhood, making agreements (when safety issue resolved) with the nearby educational institution, selling the garbage bag, and gathering a large number of participants with huge efforts. The skills in the practical component are more varied.

In the practical component, I learned that designing a survey was more challenging than I expected. I used to think I only needed to add questions and asked them to participate. However, when I started to draft the questions, I discovered that I should add more general questions regarding their willingness to participate in my project. I also needed to inform them how long it would take to complete the surveys. Fortunately, many families in the neighborhood supported me actively through the WeChat group. Many residents realized they were not so skillful at garbage classification as they thought. Many of them re-studied the policy standards after doing my pre-assessment.

It also took more time to design the neighborhood question boards because I needed to wander the neighborhood completely to decide the accurate position for placing the boards. Then, I needed to deliberate hints for the gamers, making sure they would interpret the hint in the same way as I thought. These took me a lot of time. The COVID also put worries on me because the children were not supposed to stay in the cluster. I had to separate them into groups, and then I realized it was almost "impossible" to communicate with kindergarten kids without hurting my throat because I need to make sure they didn't run lost in the neighborhood! Chinese New Year's delayed delivery shortened my selling plan, thus

not making as many efforts as I expected. I should have started earlier to avoid the Chinese New Year.

I finally did make an impact on the understanding of the policy in one and a half months. This was mainly due to my established relationships in the neighborhood, so I gathered many participants. Since changing one neighbor was not enough, the project can be used in other communities in the future with more educational institutions engagement and more question boards in the game for older adolescents to participate.