Operant Conditioning

**Description of Situation:** I have terrible studying habits. Every time I sit down to study for a class I’m struggling in, my phone distracts me. My social media accounts always grab my attention, and I end up spending around two hours sitting on my bed scrolling through my feeds. This negatively affects my grades, since the classes I am taking require extra studying at home. My sleep is also affected by my studying habits; I end up studying really late at night, and go to sleep around 2 AM. My goal is to start studying a little earlier and using social media as a positive reinforcement that will guide me.

**Related Research:** B. F. Skinner overview and conclusions…

**Plan of Actions/Procedure:** I will attempt to use positive reinforcement in order for some shaping of my behavior to occur.  Once I get home from school I will follow my normal schedule of showering, eating, and taking an hour to relax and just lie down. However, after this I will log out of all my social media accounts and have my sister change the watch my phone. Taking away my phone will remove the distraction of my feeds and give me a chance to focus on my homework and studying. Since a stimulus is removed and this will hopefully strengthen my will to study.  I will also play classical music on my computer because it is relaxing, and puts me in the mood to take out my books and read. When I finish my studying I will be rewarded with social media. This can be considered a positive reinforcement because it is a stimulus that strengthens my response to studying.

**Reflection and Conclusion:** My procedure was successful. After my phone was taken away, I had nothing else to do besides study. My behavior was shaped, and I hope that I can continually reinforce these studying habits. I do not want this procedure to only be intermittent reinforcement, because the outcome had a very positive effect on me. There were other things that were tempting to me as distractions, like suddenly I wanted to clean my room which I never want to do. However, I did my studying at an earlier hour on average. I was done by 10 on each night I tried this. I’m not sure this is sustainable since I need another person to hold my phone and I don’t trust myself to do it on my own!

Hierarchies

**Description of Situation:**  In chemistry class, we have to learn vocabulary and about many chemical reactions. They all seem very similar, and fall under the same categories. In order to remember the words, organizing them into separate categories based on similar traits would be very helpful. Visual aids can also be of assistance, since visual coding is a way to encode words or ideas into your long-term memory.

**Related Research:** Visual hierarchy research in web design overview and conclusion…

**Plan of Actions/Procedure:** To remember the words, I have decided to set them up in a hierarchical format. I created a graphic organizer that began with a big topic on the top, and slowly narrowed down into several different topics that existed within the big topic. In the top box, I wrote “elements.” Then, with arrows, I drew four boxes underneath it that had “The Atom,” “Periodic Table,” “Chemical Properties,” and “The Mole” written in each of them. Underneath each of these more narrow topics, I drew more boxes that had the specific vocabulary and definitions regarding the topic. For example, under “Periodic Table,” I wrote the most important properties of the Periodic Table that I knew would be tested on in my teacher’s class. This hierarchy is a visual aid, and can help to encode the words into my long-term memory. After creating this hierarchy, I will study it for five nights and see how well I do on the test.

**Reflection and Conclusion:** At the end of my studying session on the fifth night,  I came to the conclusion that the hierarchy method of studying is probably one of the best methods I have tried out. Reading the chart was very easy, and the order of the words made it easy to understand. The visual coding led to semantic coding, because reading the words and looking at them over and over again helped me to understand everything thoroughly.

Testing Effect

**Description of Situation:** In May, I will be taking an SAT II Biology exam, but I need to memorize a few hundred words. I have a lot of trouble remembering the vocabulary because the words are long and complicated, and some of them sound very similar. I have a whole packet of words, and can use the testing effect to remember the majority of them. I need to encode these words into my long-term memory by using semantic, acoustic, and visual coding. I have to remember these words for a couple of months, so encoding them into my long-term memory will be very useful.

**Related Research:**

**Plan of Actions/Procedure:** In order to remember the words during the test, I need to encode them into my long-term memory. I can use semantic coding, which is the principle encoding system for long-term memory. First, I will read the words and the definitions. I will read them again two more times, and then split the vocabulary into three sections. After reading one section, I will test myself on the vocabulary by covering the definitions and saying what I think the word means. I will do this for all 3 sections within the span of one week. Long-term memory has unlimited storage, which is crucial to this procedure since memorizing around 300 words is no easy feat. During this procedure, I will perhaps try to learn around only 100 words.

**Reflection and Conclusion**: The testing effect did not completely code all the vocabulary words into my long-term memory. I forgot around 20 of the 100 words a few days later, but during the actual time of memorization I knew the definition of the words. The words may code into my short-term memory instead, even though I attempted to remember them for a longer period of time. Maybe if I had tested myself over a longer period of time, I would have remembered the words better.

Classical Conditioning

**Description of Situation:** Waking up is a difficult process for me. I always feel very sluggish and tired, and have headaches. I am the only one in my family who wakes up like this; my parents and siblings are always energetic. By using classical conditioning, I hope to be less tired when I wake up in the morning. I will try to turn a neutral stimulus into a conditioned stimulus that will positively affect my waking habits.

**Plan of Actions/Procedure:** My alarm clock has always been tied with feelings of negativity and heavy drowsiness. I think in order to change that, I should play a song that I like as my alarm. It should be an exciting song, one that I usually dance and sing along to. For my experiment, I decided to use the song *Cold Water* by Justin Bieber. When this song normally plays on the radio, I am very energetic and dance along to it. I will set this song as my alarm for three days, and see if I am less sluggish in the mornings. The unconditioned stimulus the alarm clock, and the unconditioned response is me waking up. During conditioning, I will play the song, which is the neutral stimulus. The neutral stimulus will become the conditioned stimulus after conditioning, and the song will bring forth the conditioned response, which will be me waking with less lethargy.

**Reflection and Conclusion:** The experiment did not go well. I woke up tired anyways, and ended up hating the song. In fact, the results of the experiment were different from what I expected to happen. I expected to wake up less tired due to the song, but I felt the same way I did before the procedure. Also, I became negatively triggered whenever I heard the song elsewhere. For example, when I was in the car with my sister and the song came on, my whole body froze and my heart began to beat really fast. I think this was my body remembering what it felt like to wake up. My conditioned response ended up being completely different from what I thought should have happened.