

Week 1 Assignment (Draft)

PSY100

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Part 1:

Based on the reading assignment, I identified three strategies which I will use to improve my study habits. In identifying these strategies I examined several aspects of their character. As Spielman notes, it is important for an experiment in the scientific context to have “precise requirements for design and implementation”(Spielman) in order to practice effective scientific method. I looked for structurally sound strategies using scientific method, ones that made sense logically, as well as strategies that had worked for me in the past and support me in the present, and strategies that I could identify in the study habits of others around me. Using the criteria of scientific, effective and useful strategies I selected those which I found were useful in my own study work.

Using an approach that is secular proves to be an effective strategy for studying. This is due to the “actual neuroscience involved”(Rock) in examining study habits associated with social structures. Rock uses the example of buddhism to support this idea. Buddhism was selected because it appears to generate “a minimum of human conflict”(Rock), while still having a non secular approach to philosophy. This is important because as the text puts it it is difficult to get the idea across that “being mindful is useful...without activating a threat response”(Rock) which would be counter productive in the context of studying. Noting that this threat response would be a “reason not to focus on a new skill”(Rock), the author explains that religious approaches to studying tend to be less mindful strategies, and therefore less effective. Study using secular, mindful strategies proves to produce excellent results free of conflict.

Focusing on study tools involving mindfulness and meditation also proves to be rewarding as it improves study habits. Practicing mindfulness may seem daunting at first because there is so much sensory input to be mindful of that much of it slips through our mind constantly much faster than we could ever collect it. The key however is just to practice “focusing your attention onto a direct sense”(Rock) in order to limit mindfulness to other senses and amplify mindfulness to a certain sense. Meditation is an important part of this mindfulness because it involves using resources such as sounds and sights to focus the mind in order to promote mindfulness. This practice can be done during “just about anything”(Rock), while the information gained is scientific and useful in studying both as evidence and practice. Being mindful of information is very important for scientific study, as mindful facts “generated from research aids in making wise decisions”(Spielman) which are important in selecting what to study and the procedure to follow when practicing this study. Effective implementation of mindfulness and meditation exercises improve study habits by enhancing focus.

A distinct focus on direct experience as opposed to narrative experience also proves to be a useful practice when studying. Examining the supporting evidence for this conclusion, the idea that “narrative and direct experience are inversely correlated”(Rock) it seems to be the most important focus for improving study habits. To clarify, narrative experience refers to a big picture of events involving ones self and others over a certain timeline. This refers to the whole story, not just what is happening in the present, in contrast to the idea of direct experience. According to a study by Farb titled *Attending the Present: Mindfulness Meditation Reveals Distinct Neural Modes of Self Reference*, direct experience refers to the “immediate information processing network of identity”(Farb) which is distinct and separate from the narrative experience. The inverse correlation is evident when a focus of “attention on incoming data”, or direct experience such as sensory input, “reduces activation of narrative circuitry”(Rock) and vice versa. Understanding this nuance of the human psyche is important because it helps us stay aware that our brains have a “fundamental neural dissociation” between two “distinct forms of self-awareness”(Farb) which are not entirely cross compatible. Being as narrative

experience is usually less relevant to studying except when examining experiences that take place over some time, it is important to understand this neural dissociation in order to focus on direct experience when studying. Studying should focus on the experience directly at hand rather than the narrative, in order to accommodate the inverse correlation between the two experiences.

Overall study should accommodate the physiological capacity of the brain and approaches which are effective at taking advantage of this capacity. Examining the science behind what allows us to study effectively enables us as scientists to improve our study habits taking advantage of the habits themselves and our ability to modify and optimize them. As it pertains to study, the “science of behavior” began to shift to a “focus on mental processes”(Spielman) in order to gain a better understanding of how these processes influence behavior and optimize behaviour in order to make accommodations as such. Using this scientific knowledge to accommodate the capacity of our brains makes us more effective as students in our methods of studying.

Of all of the meditation processes examined in this resource, I find that the least likely to be used is the complete body meditation. These findings come from my experience with meditation both alone and in groups. I find that many people who practice meditation, including myself, have trouble holding a meditative state for an extensive period of time. Being as this is the longest meditation exercise at 19 minutes, I find that this would likely be difficult for many people to practice as setting aside this much focused time to concentrate on meditation would likely prove a challenge. Also, some of these suggestions may be difficult for those less experienced in meditation because these practices can be intense. Focusing on the “simplicity of the breath” and “life unfolding in front of us”(Winston) proves to be difficult considering the inverse correlation between direct and narrative experience. As such the length and complication of this meditation would likely make it the least appealing.

I chose to complete the loving kindness meditation practice from UCLA's meditation exercises online. In selecting this exercise I considered what I look for in meditation and my previous experiences with it. I look for redemption and calamity in meditation, which I find from love and kindness. As such I decided to practice the loving kindness meditation. This exercise made me feel comfortable and fulfilled, as if I am able to extend my care universally. After the meditation I found I could “experience great joy”(Winston) using the meditation to calm myself and examine my ego.

Part 2:

In research, experiments are designed including deductive reasoning which begins with a hypothesis, supported by general observations preceding inductive reasoning supporting the hypothesis. This process is “known as the scientific method”(Spielman) and is extensively used by scientists. Hypothesis are tested in the real world in the form of empirical observations, where data is collected supporting the hypothesis. Deductive reasoning tests the existing ideas “against the empirical world”, while inductive reasoning lets “empirical observations lead to new ideas”(Spielman) about the hypothesis, furthering the depth of the study. In this sense experimental design can be thought of as circular, with aspects of the experiment supporting each other. Experimental designs in research begin with a theory, which then leads to a hypothesis supported by research and observation which creates or modifies that theory. One specific type of experimental design is known as a clinical or case study, which focuses on “one person or just a few individuals”(Spielman) to examine scientific data in a specific context. Design involves naturalistic observation, which is simply put to “observe the behaviour”(Spielman) in its natural context. When collected “unobtrusively in a natural environment”(Spielman), this information greatly benefits from validity. Structured observation involving set, specific tasks is also sometimes involved in studies. Design by psychologists also often uses surveys as a means of gathering data which can be generalized to the population. Similarly,

archival research examines large amounts of data stored in archives through scientific methods. Longitudinal research examines repeated data gathering over time, in contrast to cross sectional research which examines multiple sections of the population at the same time. Researchers are careful to optimize their experimental design for the particular experiment, as each method has its own advantages and disadvantages.

While not unrelated, correlation does not necessarily imply causation in experimental research. Correlation implies a relationship between two variables, as one changes, so does the other. The usefulness of correlation comes from the idea that it allows us to examine the “strength and direction”(Spielman) of relationships that exist between variables. For example, research done by the American Cancer Society initially suggested a “link between smoking and cancer”(Spielman), though correlational research alone would not be sufficient evidence to make this assumption. False or illusory correlations can occur, and using experiments to examine causality with data is a more sound scientific method. In fact, the “only way to demonstrate causation”(Spielman) is by conducting an experiment. Scientific research is the only effective way to really show the definitive nature of relationships between two variables.

Psychological science has improved lives by providing important scientific information which leads to more effective practice in many fields. A classic example of this is the vaccine-autism myth. Some scientists have claimed that in some children “routine childhood vaccines cause”(Spielman) autism, findings which were disproved by later reports. These studies found that “it is much safer to have your child vaccinated”(Spielman) than otherwise thus these studies improved lives by confirming that life saving vaccines are safe. Another example involves the SAT test, which generated some controversy for various reasons. Some researchers found the test “places minority students at a disadvantage”, while others found that it is “grossly exaggerated”(Spielman) in the extent to which it can predict college GPA. These scientific studies lead institutions to consider “de-emphasizing the significance” of the test as well as the creators of the test to call for “significant changes”(Spielman) to the test. The influence of this information has greatly improved lives by providing supplemental information that ensures the safety and fairness of standard routine in our lives.

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