Assignment 3: Learning how to Learn

There are two different types of learning – "Shallow level processing" and "Deep level processing". An example to differentiate: a group of people were given a list of words to memorise; they were then split into 5 different groups:

- Group 1: Hear out for the letter "e" in the words and was not told to memorise
- Group 2: Hear out for the letter "e" in the words and was told to memorise the list
- Group 3: Hear if the words were "pleasant sounding" and was not told to memorise
- Group 4: Hear if the words were "pleasant sounding" and was told to memorise the list
- Group 5: Told to memorise the list as best as possible

The result was Group 1 remembering the least, Group 2 just slightly more than Group 1; Group 3 remembering just slightly less than Group 4, whom was the group that remembered the most. Group 5, the control group, remembered the same amount as Group 3.
This showed that shallow processing consisted mainly of memorising notes and re-reading them while deep processing was taking the information and making or learning them in abstract ways; and thus, the most important factor in successful learning is what's thought about while studying.

Shallow processing is based off memorising isolated facts; deep processing has a mnemonic system to it and has these 4 points to it:

- Elaboration: Asking how this concept relates to other concepts
- Distinctiveness: How is this concept different from other concepts
- Personal: Does this concept relate personally
- Retrieval: How to use or apply this concept

Then automaticity and overlearning should be applied. Automaticity means practicing a process so much it occurs without conscious effort, and overlearning means continuing to study critical information beyond just "knowing" the information, to the point it can be recalled quickly and easily.

There are several strategies to achieve deep processing. The first way is "Question Generation" – thinking in how questions can be asked on the concept. The second way is building a "Concept Map" to see the relationships between all the concepts and seeing how they are different. The third way is knowing how the teacher is, and practice on answering on how the teacher asks the questions.

To aid the three strategies, one way is taking notes in class or highlight. They help in providing a key summary of the concept, creates a set of memory cues and is engaging in class, but there is a fine line between shallow processing and deep processing while taking notes/highlighting. Group study is also an option, but for effective group study, the group must set a goal and agenda, have a criteria for participation, keep focused on the ultimate goal of learning and not being shy in asking/answering questions; the end result is that everybody learns. If the group study is more distracting than learning, then it is actually hindering than benefitting.

There are several misconceptions about effective learning. Even if the time and effort is spent, how the content is learnt is crucial. The misconceptions are that:

- Learning is fast
    - Truly learning material takes deep reading and review
    - Always plan for assignments to take longer than expected and have the reading done much before the exam

- Knowledge is isolated facts
    - High schoolers come into college with an overconfidence in metacognition
- A person can or can't be naturally good at a subject
- A person can multi-task while learning

Metacognition is how a topic is truly understand. Since high school is mainly based off learning isolated facts, freshmen think they can learn the isolated facts (shallow processing), pass the year easily and then are stuck when needing to understand the relations between the concepts (deep processing). Weaker students are also overconfident on how well they know the material. A scatter graph showing the relationship between estimated and actual grades, show that weaker students fall below the diagonal line.

To improve on exams, the exam should be reviewed and compared with notes to see if there are any errors or missing information in the notes, an honest review on the exam was prepared to exam study habits and developing a more effective study plan, and finally, talking to the professor. Don't panic, deny it, cram, miss class/assignments, waiting until the end of the semester to address the problem, study the same way hoping to improve, and most importantly don't give up.

I realise I have been doing deep processing for most of the time studying Psychology because I am naturally interested in how people work, and self-reading outside class has made me aware of how and why people act in certain ways and then actually putting a term to it is really enlightening. I don't really need to change how I study since – especially what we're learning now – affects me personally but I do need to go over on isolated facts, and whilst shallow processing is not ideal, it is the best way to learn isolated facts.