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With this information we can assume that females are more likely to retain information in an emotional situation than males in the same situation.  We hope that our experiment will show different ways to help students learn more efficiently.  If our hypothesis is not rejected, then the way that students are taught, both as a whole and separated by gender, should be re-evaluated.  If students actually do learn better and retain more information in an emotional situation, then perhaps more emotional aspects should be included while teaching students.  For example, instead  of students memorizing a list of vocabulary words, perhaps it would be beneficial if the words were put into sentences that had some sort of emotional involvement to that student.  The student who wrote the sentences may retain more information than the student who simply memorized a list.  Also, if females do learn more in an emotional situation than males in the same emotional situation, then the way females and males are taught in school should be reviewed.  Perhaps it would be beneficial to separate males and females and introduce a more emotionally involved way of teaching for the females.  Many other factors would have to be considered before doing anything this drastic, but if our hypothesis is not rejected, then the way females and males are taught should be seriously re-evaluated.  **Memory**  Memory is defined as the retention and ability to recall information, personal experiences, and skills or habits. (Baron 193)  Current studies support the notion that a memory is a set of encoded neural connections.  Each and every new experience causes a neuronal firing across some synapses to strengthen and others to weaken.  The pattern of change across the the neuronal synapse represents an initial memory of the experience.  However, this pattern will soon disappear unless the LTP (Long term potentiation)  makes it permanent.  LTP strengthens the connection between synapses coding an idea, event, or stimulus.  LTP may also explain why emotion promotes memory recall.  Shocking or emotional events send messages to every nook and cranny in the  [brain, triggering a kind of super-LTP that recruits neurons from all over the brain,](http://docs.google.com/BRAINB.MOV) cementing that event immediately in memory.  Researchers sometimes refer to this as flashbulb memory, as if every detail of a single, sudden moment had been captured in a photograph.  Flashbulb studies are being done across the United States and may help to show that emotion does promote memory recall. (Ratey 102)  **Emotion**  Sandra Wilson has recently studied how people respond to emotional information fed to the right and left hemispheres of the brain.  She discovered that women were able to recognize the emotional charge no matter which side of the brain the image was transmitted to.  However, men only recognized the emotional content when the image was transmitted to the right side of the brain.  There is also  a difference in the corpus callosum, the bundle of fibers connecting the right and left hemispheres of the brain.  The corpus callosum allows for an exchange of information between the two hemispheres.  In women the corpus callosum is thicker and more bulbous, allowing a better connection between the two hemispheres than in men. (Moir 87) Women are generally better at recognizing the emotional content  in voice, gesture, facial expression, and a whole range of sensory information.  Women have a greater capacity to integrate and cross relate visual and verbal information. (Jessel 324)  **What we are testing**  Our experiment is designed to test if people will retain more information when placed in an emotional situation than in a non-emotional situation. We are also testing to see if females, who are said to be more emotional, retain more information in an emotional state than males in the same emotional state.  To begin our experiment, we had to choose how we would collect our data and what materials we would use for this type of data collection. We realized that there are many confounding variables in a behavioral study and we needed to eliminate as many biases as we could. Before we made any decisions we discussed how we could avoid these biases. Throughout the planning process we kept these biases in mind and did what we could to eliminate them. We have included a list of potential biases and what we did to prevent them later on in our presentation.  After much thought, we decided to make two separated videos of a boy skydiving. The visual of the two videos would be identical, but the stories would be different. These stories would be read over each video. One of the videos would contain a story that promotes emotion and the other would have a story that should not promote emotion. Each story, although different, would contain the same facts.  For example, the boy�s name, his place of birth, and his parents� names would be the same in both stories. We would have half of our sample watch the emotional video while the other half would watch the non-emotional video. Each student would be told to write down an emotional rating on a three by five card. A scale from one to five is given to each class; one being no emotion and five being extreme emotion. These cards serve as a distraction so the students don�t know they are going to be questioned on the video they view. We planned to return to the class and ask them questions based on the facts that are present in both videos. Then we decided to add music to the background of each video to promote emotion. The non-emotional video would have dull music while the emotional video would have music that would hopefully bring our some sort of emotion that matched the theme of the story. Initially, we had intended to have the students read the story then watch the video to eliminate bias for audio and visual learners. After doing a test run of our experiment we discovered that the students were recalling too much information; a result of receiving the information in repetition, so we decided not to have the students read the story before watching the video.  Once we decided how to clip the videos we talked to the multi media teacher at our school; he agreed to help us.  We borrowed a video of a boy skydiving from a teacher we both know.  The media teacher and two students in his class helped us clip and put sound over each video. We made sure to clearly label each video and stored them in our teacher�s room.  Next, we had to decide how we wanted to collect the data.  We would have liked to use a simple random sample, but that seemed practically impossible with the resources we were given.  We decided to survey English classes because every student has an English class.  Then we decided to test only freshmen and sophomore English classes because juniors and seniors have a variety of different types of English classes available and we didn�t want that to affect our data.  After this, we got a list of all the teachers; the list contained all the periods the teachers teach, their room numbers, and the subjects they teach.  Over a period of two days we asked all the freshmen and sophomore English teachers if they would be willing to allow their classes to participate in our experiment.  When we asked the teachers we explained what our experiment was and offered to let the teachers read the stories and/or watch the videos.  Some teachers asked more questions than others and some were not interested in previewing the stories or the videos.  We explained to each teacher the importance of not telling their students that we would be returning at the end of the period to ask them questions about the video they watched.  Once we had a list of the teachers who were willing to let their students participate we made a two-day schedule of the twenty-four different classes.  We made sure to test a freshmen and sophomore class each period and had an emotional video and a non-emotional video class for each grade, and for each period.  We hoped that this schedule would help to eliminate some biases.  For example, students may be more awake third period than first period and we did not want that to confound our results.  Once the schedule was made, we told the teachers when we would be going into their classes and reminded them not to tell their students anything about our project. After we completed much research, decided on how we would collect our data, and did what we could to eliminate biases, we were ready to begin testing. | | |