

Name: Andrew To

Date: September 11th, 2013

Class: Intro to WH - F

"Is multitasking a problem?"Generating & Testing Hypotheses on Study Skills: **Multitasking****1) Multitasking (Write an original definition based on class reading & discussion):**

Multitasking is when you doing and focusing on many things at the same time.

2) What is the purpose of having a "distraction-free" work area?

The purpose of having a "distraction-free" work area is to help you concentrate better in your work, help you have a good efficiency level of what you are doing.

3) What is commonly known about the relationship between multitasking and productivity?

The more you multitask, the lower your productivity level will be.

4) Describe the "parts" of the system of doing homework efficiently. List everything that is involved in the process:

In order to doing a piece of homework efficiently, I think that there are many factors involve in this process. First of all, you must have a "distraction-free" work area. As mentioned above in Question #2, a distraction-free work area will help you concentrate better into your work. When you are concentrate, it is a higher chance for you to complete something efficiently. Second, you must fully concentrated. There are many scientific tests that have done about this issues, for example, the hippocampus. If you are totally focus and devoted into your homework, your hippocampus will be focused on its 100% effort and it will help you complete the piece of work perfectly. Third, you must have a good rest and diet throughout the day. A good diet and rest can help you and your brain becomes more energetic and working more efficiently. Those are parts of the systems of doing homework efficiently.

5) Assign a quantitative definition for the word "problem."

If you have a 60 minute homework assignment and multitasking makes you take longer

- "Multitasking would be **no problem** if it took me **75** minutes."
 - Divide "no problem" number by 60. Multiply by 100 = 25% longer by multitasking.
- "Multitasking would only be a **small problem** if it took me **90** minutes."
 - Divide "small problem" number by 60. Multiply by 100 = 50% longer by multitasking.
- "Multitasking would be a **problem** if it took me **105** minutes."
 - Divide "problem" number by 60. Multiply by 100 = 75% longer by multitasking.
- "Multitasking would be a **big problem** if it took me **120** minutes."
 - Divide "problem" number by 60. Multiply by 100 = 100% longer by multitasking.

6A) Generate a hypothesis: “I predict that multitasking will create a big problem for my work productivity because if I start to multitask, my productivity level and accuracy level will decrease, which means that it will take longer amount of time for me to do the works, as well as my works may not be as accurate as when I am totally focused. (Principle).”

Principle – A specific type of generalization that deals with relationships

6B) Explain your answer. Use your principle (generalization) as evidence and support your principle with one or more of the following:

There are many ways to prove that multitasking will decrease your productivity level, under common knowledge reasoning, or scientific reasoning. To many people, it is a common knowledge that multitasking will decrease your productivity of your work. This means that if you are multitasking on something, the time it takes you to do the work is much longer than it supposed to be. Besides that, by reading the text of Issie Lapowsky, a “Daily News” reporter, as well as many other experts in the area of psychology, you can conclude that multitasking has a great physical effect as well as social effect towards your daily life. In the text, psychologists have tested that if you are multitasking on something, your IQ score can decrease ten full points. Psychologists also prove this issue by using scientific reasoning, the hippocampus. The hippocampus is like a light bulb. When you are fully concentrated and devoted into something, the hippocampus is more likely to receive information easier. Related to the light bulb issue, this can be understood that if you have a bright, fresh light bulb, the light of your light bulb is brighter and clearer than anything else. In reverse, if you are doing many works at the same time and not fully devoted to what you are doing, the hippocampus is more likely to become inactive. Those are some common knowledge reasoning as well as scientific reasoning about the issue of multitasking and productivity.

7) Describe test. Describe the independent (Multitasking) & dependent variables (Homework)

In this project, I will do an experiment on whether multitasking is suitable with me or not. The independent variable of this experiment is multitasking, and the dependent variable of this experiment is doing my homework.

7A) Describe the independent variable (Describe how you will multitask):

My independent variable, or how I will multitask, is doing homework, listening to some Korean pop music, checking Facebook newsfeed, as well as watching some short YouTube videos about packaging my suitcase for my upcoming fieldtrip to Malaysia. These will be done all at the same time. That is how my independent variable for the experiment will be.

7B) Describe how you will keep the dependent variable uniform. Describe what you will do before and during the experiment to keep it as uniform as possible (How will you make two assignments take the exact amount of time to be a reliable comparison?):

My dependent variable will be keep uniform, in order to have an accurate result. It will be a Math worksheet, provided by Kumon Math Center. These worksheets contains 10 sheets, around 20 questions and can be done in less than 60 minutes. Its contents are somehow similar with each other. My first worksheet will be a 60 minutes worksheet, focusing on solving linear equations. My second worksheet will be a 60 minutes worksheet, focusing on solving inequalities. That will be how my dependent variable looks like and how it were uniformed.

7C) Describe how you will conduct the experiment. (2-4 sentences):

I will conduct this experiment by multitasking and doing my homework. I will listening to music, checking newsfeed and watching some YouTube videos. On the other hand, I will doing my Math worksheets about inequalities and linear equations. That will be how I conduct this experiment.

8) What are the results?

When you are totally focused on a pack of worksheets, you will get it through quicker and your accuracy level is higher, compare to when you are multitasking.

8A) Experiment 1 (Total focus).

Time the assignment took: 55 minutes

Results of the H/W? 18/20 → 90%

Describe how it felt and what you noticed:

When I do this pack of worksheets, I am fully concentrated to it. I feel like the worksheets are very easy and I have gone through it quickly. In my brain, I feel like it is speaking to me, say that: do your work, this is equal to that, this is wrong, this is correct, etc.

8B) Experiment 2 (Multitasking).

Time assignment took: 121 minutes

Results of the H/W? 14/20 → 70%

Describe how it felt and what you noticed:

When I do this pack of worksheets, I feel like my head will be exploded in any moment. It feels like there are a million of people yelling by my ears, each person with a different message.

8C) The difference in time between total focused and multitasking.

Time to complete 10 Math worksheets with total focus: 55 minutes

Time to complete 10 Math worksheets + K-pop + Facebook + YouTube: 121 minutes

Multitasking takes me 120% longer. $121/55 = 2.2 \rightarrow 2.2 * 100 = 220 \rightarrow 220\%$ longer.

9) Results. Is multitasking a problem for you? Explain your results citing support from the experiment:

Multitasking is a big problem for me. Related to Question #5, I have stated that if it takes me over 120 minutes to do a 60 minutes homework, then it is a big problem to me. In the homework that I am multitasking, I have done it with 6 out of 20 error problems. This issue has makes my accuracy level drops 30%. Besides that, when I am multitasking, the amount of time that it takes me to complete is 120% longer, compare to when I am total focused. This has shown that it is not just passing the time limit, but it also states that my accuracy level will be falling down tremendously when I am multitasking. Through this experiments, I can concluded that multitasking is not suitable with me, since the amount of time that it takes me is longer, as well as my accuracy level is dropping surprisingly.

10) If the predictions were accurate, identify the observations that helped you the most. If the predictions were inaccurate, try to figure out what you missed.

Multitasking will decreases both productivity and accuracy level. To support that my hypothesis is correct, my experiment has concluded that when I'm multitasking, the amount of time that it takes me to complete is 120% longer, compare to when I am total focused. Not just my productivity level decreases, my accuracy level of the sheets will also decreases amazingly. When I am multitasking, I have done the worksheets with 6 out of 20 error problems, deducts my accuracy level up to 30%. This can be explained by saying that my hippocampus cannot fully concentrated to the work because there are too many ongoing works besides me. Through this information of accuracy level and productivity level, I can prove that my hypothesis is correct.

11) Reflection question. How might this information be misleading? For example - "More efficient studying doesn't necessarily mean better grades."

Even though this experiment has shown us that multitask is not a good friend, both in productivity and accuracy level. However, this information can be misleading when you applied it on another subjects. This experiment is focusing on Math problems. In Math, they either have a correct answer, or a wrong answer. There is no gray-colored answers like in English, History, or even some Science subjects like Psychology. If you take this result and apply to other subjects, the result you received may be misleading and inaccurate. In conclusion, different situations will ends with different results, therefore, you cannot apply one result to every situation.

"On my honor, I did not assist any other students. Likewise, I did not receive any help from students on this assignment. Moreover, I did not make up any of this information; it was all conducted this way. If it becomes clear that this was not the case, I accept full responsibility for the consequences."

Andrew To

(Initial)

Wednesday, the eleventh of September, twenty-thirteen. (Date)

Rubric

10 pts – Student demonstrates impressive trials (solid dependent & independent variables). Student uses strong references from text. Student is able to explain reasoning behind hypothesis. Student uses observations from experiment to find new meaning on relationship between productivity & multitasking.

9 pts – Student conducts trials. References text. Justifies hypothesis. Student references observations.

8 pts – Student conducts trials, references and reflection but information is unclear or partially supported.

7 pts – Student conducts trials, but information is inaccurate or misguided.

6 pts and below – Needs improvement. Sloppy references or conclusions that are unsupported.