

Formal Report Proposal

Lani Diana

June 26th 2017

To : Langara College MATH 1150 instructor

From : Lani Diana

Date : June 7th 2017

Subject : Proposal for Using Visual Notes as Additional Learning Aid in Langara College MATH 1150

Introduction

During my time as a basic tutor in the MSAC, I was often consulted by students from MATH 1150 about how stressed they were when studying math. While generally math is known as a horrifying and difficult subject, most of the students I taught were adults who had to balance their full-time work and school. With their hectic schedule, studying math became even more frustrating, and eventually led most students to use wrong method in learning the subject: by memorization or trial-and-error method.

Statement of Problem

Based on my observation during tutoring session, students who memorize the steps instead of understanding the concept just copy down the exact same steps in their notebook onto the test paper without knowing what they are doing. Thus, when asked where they think they have made mistake, they get even more confused. At the end of the day, these students don't understand the nature of the problem, and at the same time they fail their tests, which adds on more to their stress.

Proposed Solution

One possible solution is to help students learning math in a different way, for example by using visual notes. According to an article written by molecular biologist, John Medina, humans learn and remember better using visual rather than audio. Pictures work better than texts since human's brain "sees words as lots of tiny pictures, and we have to identify certain features in the letters to be able to read them" (Medina, "Brain Rule Rundown"). A NY times article written by Pam Belluck also mentions the usage of color generally improves performance.

The main goal of the usage of visual note is not only limited to improve memorization time and understanding, but also to improve student's mood when learning using doodles and color. This way, hopefully there will be improvement on the students' academic performance.

Scope

To assess the effectiveness of using visual note on student's performance, I plan to pursue the following areas of inquiry:

- How does color help in highlighting different type of information?
- What kind of visual is appropriate to help digesting difficult terms more easily?
- What kind of sketch noting technique is appropriate?
- Do the visual notes help students illustrating the problem more easily?
- Do visual notes make studying math less stressful?

Methods

I will be providing students with visual notes as means of review materials for their weekly quizzes. At the end of the term, I will be conducting a survey with the students of what they think about the usage of visual notes as learning aid, as well as their opinion on what can be done to improve the notes to help prospective students with their study.

Qualifications

My position as a marker for MATH 1150 allows me to have a good idea on what is taught in class and the class progress itself. I have been a marker for this class for a year, so I am familiar with mistakes students commonly make and types of misconception they tend to have on certain concept.

Conclusion

Visual notes have been claimed as a successive learning method on many subjects such as biology or history. By addressing the five inquires mentioned above, I can determine the effectiveness of this method on MATH 1150.

Reference:

Belluck.Pam."Colors might affect performance, study suggests".The New York Times, 6 February 2009.<http://www.nytimes.com/2009/02/06/health/06iht-color.1.19983382.html>. Accessed June 7th 2017

Medina.John."Brain Rule Rundown".*vision.brain rules*,n.d. <http://brainrules.net/vision> .Accessed June 7th 2017.