Reflection

If the researchers were to repeat the whole process, they would change many things. The first thing they would have done differently is restructure the survey and break the data down into more specific categories. Questions #1 through #6 were included as a way to gather information about those taking the survey. This information included the math course that they are currently taking, their 1st Semester Grade, and their current grade. The data was collected, but not recorded, from these questions. Future research might be able to make connections and parallels between student perception, acceptance of CC and CPM, past grades, and their current grades. This data, while not utilized for this study, could easily be used for follow-up research.

Another thing the researchers would have changed is the separation of the data. Now, the researchers would have collected different data for each math class. These math classes consist of Math Lab available for Algebra and Geometry, Pre-College Mathematics, Algebra 1, Geometry, Algebra 2, Algebra 3, Financial Algebra, Honors Geometry, Honors Algebra 2, Honors Algebra 3, AP Calculus AB, AP Calculus BC, IB Math studies SL, IB Mathematics SL, and IB Mathematics HL. It would have been interesting to see what percentage of students in "low level" math classes liked or disliked the CC/CPM compared to the opinions of those in "higher level" math classes.

The next thing the researchers would change would be to separate the answers into responses given by those students in honors' classes and those in non-honors. They would do this to see whether the CC/CPM affected the grades of non-honors' students more than honors' students or vice versa. Breaking the respondents down into grade level would also have painted an interesting picture. Would students who were at the end of their high school math careers be more resistant to and less accepting of change to the way in which math class operated? Or

would they like it? The same could be asked of 9th grade students. What about how boys and girls answered? Looking at the results from a gender angle could have also shed some light into why the CC and CPM are not (currently) well-received at WNHS. In the end, this would give the researchers more specific data.

The thing that worked best for the researchers was the teacher survey. This survey was long and gave teachers a lot to respond to, which, in turn, gave the researchers lots of useful information. The student survey certainly needed to be restructured. There was some confusion at the wording of the questions. In addition, some students even left answers blank.

Another thing that worked well was the environment and the setting and sample. This worked because WNHS is large, has many students, and offers many different math classes. In getting 851 student responses (or 61.7% of the population), the researchers are very confident that their findings accurately reflect the views of the entire student body. Had they had a smaller sample size (of only 30 or 40 students), or if they had surveyed only 9th graders, or surveyed only honors' students, then their findings would be incomplete and run the risk of being labeled "biased". The teachers teach a lot of different math classes, which allowed the researchers to collect data from people that are experienced with educating a diverse population.

The high completion rate of the teachers (only one teacher chose not to participate) was also very important to the validity of this C.A.R. project. All of the teachers that completed the survey put in a lot time and effort, as evidenced by their thoughtful and very thorough answers. Despite the controversial nature of the survey, the teachers were willing to take class time to have their students fill it out. This was crucial since the researchers could not have possibly surveyed every math student on their own time.

The topic was another thing that worked well for the researchers. The CC/CPM is a hot-button issue. The switch to CC in many states happened within the past few years. Some states (like Indiana and Michigan) that once embraced the CC have since backed off their glowing endorsement. The state of Ohio just began implementing the CC last year and this year, which allowed for the researchers to get fresh and current opinions about the CC.

What surprised the researchers in this process was that most teachers said that they liked the CC/CPM, but most students said that they did not. The dissimilarity between these two answerers shows the perception of how students learn is different between students and teachers. Teachers believe that students should learn one way, while students are more comfortable learning a different way. While this may be the way it has always been – with teachers and students (and administration and parents) disagreeing over the best approach to delivering instruction, the CC/CPM has really brought this debate to the forefront.

This project was very important to the researchers – especially since they are current WNHS students enrolled in math classes using CC/CPM. Their Literature Review and survey results showed them that there are many sides to the CC/CPM. From their own experiences, the researchers have seen how opinionated, how defensive, and how angry students, teachers, and parents get when discussing the CC/CPM. It is a very real issue – and one that is not privy only to math. There is CC for English classes that is in the implementation phase, and there are writing components of the CC embedded in the new Social Studies curriculum. The biggest take away from this research is that students, in general, are confused about the difference between CC and CPM. However, what is consistent is the fact that their dislike of CC/CPM centers on the group work component. As battle lines continue to be drawn across the U.S., it is clear that the

CC is here to stay… for now. Or is it? After all, how did that whole “New Math” approach in the 1980s pan out?