Cleo You
HUDK 4050
Reflection Essay

Pre-course experience:

Recently, many math teachers voiced out that Calculus is not required for high school students. They told me that using data/statistics will be more valuable to learn at school. I, as a high school math teacher, was not sure about what will be the best option for my current and future students. I thought of moving my school to develop data analysis course in their high school experience. At the same time, I was thinking about how I can apply statistics/data mining to real-world settings. Even though I teach and learn statistics, I could only apply for the statistics and data in my specific settings. People create the data every day by using the internet and other methods. Especially now, all of our histories include covid-19 will produce data. Therefore, educational data mining will significantly predict and design students' future learnings.

Course experience:

There are five-course objectives in this HUDK 4050 course. I strongly think that I learned all course objectives this semester. My favorite objective is that learners will be able to identify appropriate inquiry questions related to problems in learning, performance, evaluation, policies, or other educational fields. My group presented COVID-19 and its Impact on College Students' Well-Being and Academic Achievement. We are still coexisting with COVID-19. In 2019, our experiences were very new to all of us. Since 2019, many different types of data have been collected, including medical and academic data. Schools experienced different settings of educational settings. I always considered how I could help the education field with the collected data. The strength of the common educational data mining method is to show how we can predict with many variables to set up a healthier and supportive educational environment for students and staff. This strength will be more valuable to learn EDM because we all can make our data even though we are not using coding programs such as Python and R. If I understand the concepts of common educational data mining methods, I can interpret many different real world settings.

Through the Creative EDM from other groups/peers, I learned many educational future research and policy directions. Every day, people are experiencing changes in the environment. These changes make different policies and needs for educators. By using R or python, and/or social network programs, I can visualize more enormous data to present for others to show my own data. This visualization will be a tool to think about the new policies and directions for the educational field to prepare for everyday's changes.

The challenging part of this course was coding. Professor Liu provided all of the directions of the coding. R and Python both are brand new for me to start coding. While I was working with my R, I thought that I was not digitalized and organized enough to think about coding. When I was cleaning the data for the ACA2, I remembered that it took two days to think about “data cleaning” itself. When my coding has a mistake to knit my coding, sometimes I coded again repeatedly to find mistakes. It was not effective but it was good enough to track and rethink about my coding. It was often to see “spelling errors” to find or couldn’t connect the lessons and coding simultaneously.

Looking forward

This semester, I connected with many statistic mathematics concepts with data mining. This course increased my curiosity related to data privacy and prediction. I also learned that I already have lots of data, but I couldn’t make visualizations to share my thoughts. I want to organize my data to show the directions of new education. Data privacy is a critical issue right now. I am trying to teach my students related to their privacy. Students should find the balance between privacy and communication. This change requires step by step conversation among students and many different perspectives of adults from now on. I believe that education is the fastest method to change.