**2.8 Data Analysis**

Candidates model and facilitate the effective use of digital tools and resources to systematically collect and analyze student achievement data, interpret results, communicate findings, and implement appropriate interventions to improve instructional practice and maximize student learning.

Reflection

The Data Overview Project was a culminating activity that showcase my ability to create an electronic presentation of a data overview which I designed based on my analysis of the fourth-grade students’ CRCT and GMAS results over the past four years in the building where I work. The Data Overview demonstrates the International Society for Technology in Education’s (ISTE) Essential Condition of Assessment and Evaluation- “Continuous assessment, both of learning and for learning, and evaluation of use of technology and digital resources” (Williamson and Redish, 2009, p.13). I created a narrated PowerPoint of my analysis of state-wide assessment data for students in grade four between 2014 and 2017. Although the state achievement testing measure changed from the CRCT to the GMAS, I was able interpret the results and communicate the findings in an organized manner that included comparing the fourth-grade students in the building where I work with similar students in the district, and with similar students in the state of Georgia. I chose to analyze data for students with disabilities (SWD) and English Language Learners (ELL).

Standard 2.8 Data Analysis outlines the criteria to model and facilitate the effective use of digital tools and resources to systematically collect and analyze student achievement data, interpret results, communicate findings, and implement appropriate interventions to improve instructional practice and maximize student learning. The artifact I chose, clearly demonstrates my skills to create a multimedia digital presentation that includes video and audio in the form of a narrated PowerPoint. This presentation was created to communicate the findings in a clear, concise, and easy to follow format. I adhered to the basic expectations for this product which included: a minimum number of slides, Title, Purpose, Presenter, Date, Demographic data, School data, Sub-group data, Incorporate various types of graphs and visuals, indicate total number (N) for each graph, Analyze trends, discuss Proficiency levels and Strengths, discuss Weaknesses and offer possible causes and offer solutions, highlight Areas for Improvement, pose Questions for the audience’s participation and engagement, include an Action Plan/ Next Steps, and answer Questions from the audience. This project was not as intimidating as I originally thought before I gained the prerequisite skills necessary for the completion of this artifact. Other course requirements practiced in isolation prepared me to complete the overview using the skills I acquired during this class. I incorporated EXCEL skills for disaggregating student data by isolating specific criteria to include (or withhold) in specific sub-groups of data like race, gender, proficiency level scores, teacher, school data, district data, or state data for examples. I was stretched beyond the limits of what I came into the class knowing and the skills that I took with me after completing this comprehensive analysis. I chose to collect, use, and analyze data based on the fourth-grade student achievement scores reported to the state (of Georgia) for the years 2014 through 2017. The fourth-grade teachers were my inspiration or target audience for this project.

Completing this data overview gave me an authentic learning experience that I was able to share with the leadership team during this year’s pre-planning meeting. I had no idea that I would have the platform to share my experience with interpreting data and to offer possible interventions for improving our instructional practices to maximize student learning outcomes. One of the most interesting aspects of having completed this analysis, was that the data was so meaningful that I shared a great deal of the information from memory. I was not trying to, but I think that my principal was impressed with my level of knowledge about data- collecting, analyzing, using, interpreting, and communicating said data without an agenda or notes. I explained that I was required to create a data analysis for the graduate class that I was currently enrolled. Since pre-planning, my principal has referenced the information that I shared on at least three separate occasions. I also believe that she realized that the data I chose to highlight was meaningful for me as a special education teacher moving from third to fourth-grade with the same group of students from last year. I have a personal stake in wanting to see an improvement in the student data, and as a teacher of fourth-grade student, I can do something to improve student engagement and impact student learning outcomes for the student I serve. I would probably disaggregate the data based on gender in addition to students with disabilities (SWD), English Language Learners (ELL), Students without disabilities, and General Education (GE) students.

The work that went into creating this artifact was genuine, authentic, meaningful, engaging, and yes at times frustrating when my skill level did not match the expectation of the task. When this happened, I had to research how to increase my skill set to fulfil the requirements of the task. I watched videos and viewed them again when I did not understand. I studied models provided by the instructor and analyzed what they did well and took note of the limitations found within their products. The impact of completing this assignment was made before I even stepped foot inside the classroom. It started before I entered the school. I began to make an impact when I shared my personal experience of collecting and analyzing student data specific to the groups of students that I would serve and by sharing my findings with the leadership team. When my principal realized that I knew what I was talking about, and that my conversation was based on and supported by data- data that she herself had already disaggregated on her own and had already compared it to the 2018 data that I had not received. Creighton, (2006) posed an interesting question, “How can the principal be the technology leader if he or she is not technologically competent or knowledgeable?” (p. 23). My principal has demonstrated her knowledge to lead by example as someone knowledgeable about technology and data use. I believe that I made my first impact when I learned how to conduct a data analysis during the summer before school ever started.