**2.4 Higher Order Thinking Skills**

Candidates model and facilitate the effective use of digital tools and resources to support and enhance higher order thinking skills (e.g., analyze, evaluate, and create); processes (e.g., problem-solving, decision-making); and mental habits of mind (e.g., critical thinking, creative thinking, metacognition, self-regulation, and reflection).

Reflection

The Engaged Learning and LoTi Assignment (EL & LoTi) was completed to evaluate how (well or how poorly) my district/ school implemented the NETS standards for either students (NETS-S) or teachers (NETS-T), or both. During the evaluation of the NETS standards, I was tasked with measuring my school’s technology implementation with the expectations of those of the state of Georgia as outlined on the GaDOE’s website. The purpose of the assignment was to analyze our technology practices for technology tools and technology use that supports higher order thinking skills. The EL & LoTi assignment demonstrates the International Society for Technology in Education’s (ISTE) Essential Condition of Student-Centered Learning- “Use of technology to facilitate engage approaches to learning” (Williamson and Redish, 2009, p.13).

Standard 2.4 Higher Order Thinking Skills outlines how candidates are expected to model and facilitate the effective use of digital tools and resources to support and enhance higher order thinking skills (e.g., analyze, evaluate, and create); processes (e.g., problem-solving, decision-making); and mental habits of mind (e.g., critical thinking, creative thinking, metacognition, self-regulation, and reflection). This particular assignment centered around me using my newly acquired knowledge to research my district’s technology policies and goals. At the time of this assignment, I was employed by Fulton County Schools (FCS). Many of the technology standards were embedded within the Mathematics K-12 program standards. The goal was simple, “Enable students to utilize calculators and computers as problem-solving tools” (2014, Fulton County Schools Website). I looked at different content area standards to determine whether or not technology standards were included in the overall standards for each content area. I found technology standards in the following content areas: Math, Reading, and Writing. At the time, teachers at my school were using technology as outlined by the standards embedded across contents. I used technology with the students I served as expected. Admittedly, at that time, my technology implementation was on the lower end of the LoTi spectrum. A second goal of this assignment involved me watching and evaluating assigned videos for indicators of Engaged Learning, and the third and final goal was to analyze each video for Levels of Teaching Innovation (LoTi). Ideally, the higher the LoTi, the higher the thinking skills required by students. Additionally, the engaged learning indicators, supported higher order, critical, and creative thinking skills as well. Several of the I indicators that I recognized during my analysis included Challenging, Authentic/ Meaningful, Collaborative, Student-directed, Multi-disciplinary, and Student as Explored and Teacher. My assessment included an analysis that that yielded Loti scores that ranged between LoTi 3 and LoTi 5 for Infusion, Curriculum, Authenticity, Technology Use, and High Order Thinking.

I was pleased to learn that teachers in my building including myself, were using technology within the expected guidelines of the NETS-S and NETS-T as outlined within the content area standards. For Math, we used computers more as problem-solving tools rather than for problem-solving tasks. We used the computer as a calculator rather than assigning complex tasks embedded in spreadsheets for example. For Reading, we used computers for viewing someone else’s videos rather than routinely creating our own videos for others to view. Creating PowerPoint presentations were often assigned as collaborative tasks for students for example. For Writing, we used the internet to produce and publish written work. Reflecting on my knowledge of technology skills at that time, I was not a technology innovator in in building, nor was I unskilled at using technology. I knew enough to realize that I need to learn more to engage my students, and to improve my instructional practices. If I could go back in time and redo this assignment (and class), I would seek and take technology technology-related professional development (PD) classes and get ahead of the problem to become a part of the solution in the building where I worked. I would have educated myself by seeking out classes and people to help me improve my integration of technology. Although a Special Education teacher, I would follow the advice of Roblyer and Doering (2013) regarding English Language Learners (ELL). “For ELL teachers, the overall challenge is to find ways of applying technologies that can help address the needs of many differing students for when English may be a second or even third language and who may not be literate in any language” (Roblyer and Doering, 2013, p. 301). I would take this into account because many of the students I serve are both ELL and are students with disabilities (SDW), and this subgroup of students often encounters additional educational challenges.

My use of technology directly impacted the students in my class and possibly the teachers on my team. I suppose that the impact was measured in my Annual Yearly Progress (AYP) scores and in my students’ individual annual growth indicators.