Nick Muller

M1A1: ISTE Standards Analysis

Compare and contrast the International Society for Technology in Education (ISTE) Standards for Students with the ISTE Standards for Teachers.  In what ways are they similar/different?  In which areas do you feel prepared/unprepared to support students at the grade level you wish to teach? (InTASC 4n; CEC 5.2)

The ISTE standards for students include creativity, communication and collaboration, research and information fluency and critical thinking and problem solving. The standard of creativity requires students not only to solve problems using rote methods, but to take basic concepts and use them to solve advanced problems. In short, the standard of creativity (especially in math) requires students to not just to generate new ideas, but to apply concepts in new ways to problems. To solve problems, communication and collaboration are important. With the plethora of information available through media and technology, students can form groups and come up with problems and solutions in a group setting through communication and collaboration that exceeds what the individual could accomplish. For some projects, research and information fluency is required; the ability to identify sources and information that are helpful for solving problems is also beneficial. In effect, research and information fluency allows a student to explore solutions to a problem of interest not only from peers and small groups but also from the wider educational community. For students interested in advanced degrees, this ability to learn from the broader community is critical. Finally, critical thinking and problem solving skills are needed because the student is ultimately responsible for developing his/her own ideas. In this context, it is especially important for students to engage in the hard work of original thinking instead of the easy work of plagiarism (http://www.iste.org/standards/iste-standards-students).

The standards for teachers are similar to the standards for students because teachers must be able to develop creative solutions to topics and problems using all the resources available and must be able to guide students in the process of identifying interesting problems and solving them. This ability to know and guide students is necessary to facilitate and improve student learning and creativity, to design and develop digital age learning experiences, to make accurate assessments of student growth and to model the use of technology in digital age. In the end, the goal of the teacher is to encourage creative problems solving *through* the use of technology, not simply to teach technology use.

The standards for teachers are different than the standards for students because they require teachers to guide students and to make assessment of students. These tasks are unique to the teacher and are very important to the process of learning and education http://www.iste.org/standards/iste-standards-teachers).

I feel more prepared to teach students during this, my second year of teaching math. I have gained some proficiency with Smart board technology and have started to use the internet. I have increased the amount of assessments and look forward to doing more, drawing on resources and handouts from others. I also began to ask students to do presentations of their own using the internet as a source. I still feel unprepared with regard to the proper balance between internet lessons and plans and my own lessons. I also feel overwhelmed by the requirement to use technology to promote the common core standards when most of my colleagues do not do this and many students are simply not equipped to achieve common core proficient guidelines based on previous learning.

Currently, I am learning to create lesson plans in SMART Board. I would like the opportunity to think about how a lesson plan that incorporates technology would be different than a lesson plan with minimum or no technology (as chapter 1 says: lesson planning is critical for achieving success—running by the seat of your pants is not the way to go).

As I look to the future, I think the issue of student differentiation is important. Some students are more equipped to use technology; other students do not have access and are less equipped. Finding a balance seems really important to me.

Reference: http://www.iste.org/standards/iste-standards