Technology Vision

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As society is progressing further into the digital age, educators face the challenge of engaging students in relevant learning opportunities. Technology allows educators to channel student energy in a meaningful and productive manner. In order to facilitate higher-order thinking and learning, teachers must find a way to be informed leaders that are prepared to provide twenty-first century learners with what they need to be successful members of society.

Technology is a vital component in educating students of today to be leaders of tomorrow. Cobb County School District realizes the value of technology in education and believes:

Technology, as an integral part of curriculum, instruction, assessment and learning, prepares students to succeed in a global community. Our students will be equipped with twenty-first century technology skills to demonstrate, apply and communicate their learning. College and career ready graduates must have these skills. (Cobb County School District, July 1, 2009 - June 30, 2012)

This belief leads to a positive vision for all schools in the county, but needs to be enhanced to address the compounding needs of learners and teachers in the county’s various schools.

Powder Springs Elementary places its efforts on providing students with an educational foundation that develops students into well rounded individuals. It is the mission of Powder Springs Elementary to “provide students with quality education that will prepare students for life’s opportunities (2009). Similarly, Powder Springs Elementary envisions “a school and community working together to develop future leaders” (2009). In the future, Powder Springs Elementary envisions confident staff members who structure technology embedded curriculum to help students facilitate and drive their learning. Educational leaders at Powder Springs Elementary foresee individualized student access to handheld electronic tablet devices, and utilizing these devices for interactive learning. It is therefore envisioned that the learners at Powder Springs Elementary will use multiple sources of technology to increase their depth of content knowledge and employ higher order thinking skills. These visions promote student success and provide teachers with the confidence and training to meet the needs twenty-first century learners.

It is important to set high expectations, and the School Strategic Plan (SSP) at Powder Springs Elementary has outlined specific areas to improve school and student achievement. The areas that were identified in the SSP targeted student learning performance in Math and ELA instruction as well as learning. Placing emphasis on overall school performance, Powder Springs Elementary is targeting parent involvement, professional development, and school climate/discipline. In relation to Powder Springs Elementary School’s mission, vision, and goals, technology can directly meet its current needs. Technology embedded curriculum infuses students with quality education that prepares them for twenty-first century learning. Additionally, it allows students to take responsibility and ownership for their learning and behavior, which is a direct correlation with the leadership component of Powder Springs Elementary School’s vision.

The article “Technology in Schools: What the Research Says”, stresses the importance of integrating technology into curriculum, explaining that as technology is “accelerating globalization, it will advance changes in education” (Cisco Systems & Metiri Group, 2006, p.2). Technology is evolving content of what students are learning as well as the process of how they learn. From the studies that various researchers performed, Cisco Systems & Metiri Group (2006) concluded that students perform equally or better academically in online learning environments as students being instructed in traditional environments (p.2). The article states that “research clearly indicates that the effective use of technology can result in higher levels of learning” (Cisco Systems & Metiri Group, 2006, p. 2). In order to facilitate higher level learning, educators and administrators need to make sure that students have access to the technology they are familiar with and accustomed to within the classroom setting. In order to facilitate student centered, high quality learning, students must have access to devices that transfer these practices into reality. Students in the current generation rely on technology to communicate, thrive, and be entertained. This is the primary foundation that can shape instructional practice at all levels, and is the reason why handheld electronic devices should be in the hands of each student at Powder Springs Elementary.

According to Creighton (2003), the purpose of effective technology integration is how the teacher uses technology to support clear learning objectives (p. 68). While the integration of technology in schools involves the actual use of technology tools like interactive whiteboards, tablet devices and computers, teachers must use best practices on a daily basis to challenge, invigorate, and motivate learners. Oftentimes, when technology is effectively integrated into a classroom, it is within a setting where these routine practices are in place. Combined with clear learning objectives and outcomes, the foundation of effective education requires the same principles as effective technology integration (Creighton, 2003). As technology becomes more prevalent and plentiful in classrooms throughout, teachers at Powder Springs Elementary need to evaluate how they use the tools to facilitate student driven learning and begin creating twenty-first century classrooms.

The International Society of Technology in Education (ISTE) created Essential Conditions to ensure that high-quality technology is implemented in schools. The Essential Conditions are based off of educational best practice, revolve around shared visions and quality leadership, and are centered on student driven learning (International Society for Technology in Education [ISTE], 2012). “Student-centered learning” is one of the most important conditions to consider, because planning, teaching, and assessment should be focused on the needs and abilities of students. According to Creighton (2003), education is not a process in which the teacher educates the student, but focuses on the active process of construction by the student. Teachers at Powder Springs Elementary need to consider this as they move forward in creating twenty-first classrooms. It is envisioned at teachers at Powder Springs Elementary move towards providing instructional environments where students are able to critically think, explore, and guide their own learning in a collaborative process, which technology promotes (Creighton, 2003).

Creighton (2003) outlines the specific roles that the teacher plays in an engaged learning, student centered classroom. To promote engaged learning, the teachers at Powder Springs Elementary should take on the role of a Facilitator, Guide, Co-learner, and Co-investigator. As a Facilitator, Creighton states that teacher provides environments, experiences, and learning opportunities that incorporate collaboration, problem solving situations, authentic tasks, and shared responsibility. Creighton goes on to explain that the teacher acts as a Guide by incorporating modeling, and coaching, while adjusting levels of information based on student needs and helps student’s link schema to new learning. Creighton elaborates the teacher’s role in engaged learning, explaining that the teacher also takes on the role of Co-Learner and Co-Investigator, as they work alongside students to explore as well as produce collaboratively. In this role, Creighton (2003) adds that “students explore new frontiers and become producers of knowledge in knowledge-building communities” (p. 2).

Similarly, Creighton (2003) identifies the roles that students play a role in engaged learning, as they are the Explorer, Cognitive Apprentice, and Producers of Knowledge. As Explorers, Creighton notes that students discover concepts, connections, and skills by interacting with technology tools in the real. As Cognitive Apprentices, Creighton says that students observe, apply, and refine skills as they practice thinking processes used by professionals. They reflect on their thinking processes and articulate the elements across. Creighton (2003) notes that students act as Producers of Knowledge as they “generate products for themselves and their community that synthesize knowledge and skills” (p.73).

Technology engages, inspires, and sparks creativity in students. It gives educators opportunities to fulfill their role as innovative leaders. The article, “New Technologies in the Classroom” demonstrates the effectiveness of current and potential uses of technology like tablet devices in the classroom and is summarized by Pilgrim, Bledsoe & Reily (2012) as follows:

Technology offers teachers a way to engage students in learning that translates to real world applications. Although it is difficult to keep pace with changing technologies, educators must work to integrate new technologies into classroom instruction. Integrating technology extends beyond the ability to use a projector and present via PowerPoint. Integrating technology into instruction means students are utilizing technology to enhance higher-level thinking skills and problem solving. (p.21)

With technology, teachers are able to reach learners at individual levels, scaffolding knowledge and allowing students to drive their own learning. Technology integration is not merely presenting students with information in a presentation, but it is allowing students to actively engage and use technology tools to facilitate and drive their own learning. Pilgrim, Bledsoe & Reily (2012) mention that educators can utilize certain technologies like tablet devices with pertinent apps so that academic learning translates to real-world applications. As educators looking forward into the future, we need to be proactive in our instructional approaches to make sure we are providing our students with relevant, stimulating learning opportunities. Teachers at Powder Springs Elementary envision finding a balanced level of instruction and guidance to allow students to solve problems and think critically.

When implemented correctly, technology lends itself naturally towards student centered, problem based learning. It is envisioned that classrooms will have individualized access to digital learning tools that encourages learning centered on the needs, abilities and interests of students. In the article, “The Early Results of an iPad Classroom are in”, Fred Sitkins reflects on the benefits of tablet devices in a particular school as follows:

I believe [high levels of student engagement] is a result of students having their own highly engaging and personalized learning device and their own space to learn in. They share better, problem solve better and most importantly learn that there is more than one way to solve a problem. (2012)

Effective learning occurs when students are excited about their learning. Opportunities to ignite this excitement to open doors of the highest quality learning can occur when current devices such as iPads are integrated in classroom lessons. Student learning time is maximized and the learning day can be extended (Sitkins, 2012).

As educators, we must help our students achieve their highest potential by guiding them to success based off of their aptitude and gifts. We must use best practices to engage and challenge learners. We must commit to increase student achievement and encourage them to exceed their personal goals. In order to do this, we need to keep our vision in mind and center our actions on student needs in this digitally driven world. Providing them with the necessary tools to succeed, and teaching them how to use those tools to independently evaluate and assess educational progress and shortcomings, is what will create well rounded, career and college ready individuals.

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