Module 2 Application: Technology Plan: Vision, Needs, Goals, and Objectives

Gerardo Gonzalez

American College of Education

Technology Plan: Vision, Needs, Goals, and Objectives

Based on what I have learned about educational technology at Edgebrook Elementary School, my proposed vision for educational technology would be the following:

Edgebrook Elementary School will use various educational technology tools, including the differentiated use of hardware and software, to support the needs of an increasingly diverse set of student skill sets in order to promote student proficiency in all domains so that students may succeed in higher education and beyond.

The categories that I will include in my needs assessment will include professional development, hardware, classroom integration, and software. The school is currently doing an outstanding job at generating funding outside of the resources provided at the district level and as a result will not be included in the proceeding gap analysis.

**Gap Analysis**

|  |  |  |
| --- | --- | --- |
| What is the Current State? | Gaps that Exist | What is the desired state? |
| Edgebrook Elementary currently has 205 computers to serve over 500 students for grades K-8, a ratio of 2.4:1 | Computers are not assigned to specific grade clusters, making differentiation difficult within the school. | Grade clusters (k-3, 4-6, 7-8) need to have access to designated computer stations so that programs can be bought for their specific learning outcomes.  The purchasing of more computers so that the ratio can near 2:1 |
| The school has recently purchased $3000 Accelerated Reader program for the entire student body to increase test scores and improve overall student performance in reading and writing. Additionally, Mac computers are outfitted with GarageBand for music classes. | There has been a lack of spending to address other areas of skill development including math, typing, and presentation software. | Edgebrook Elementary must divert more funds to areas outside of the traditional multiple choice testing in order to produce more well rounded students.  Funds must be used for other Web 2.0 applications including Glogster and Prezi. |
| Professional development is led the technology coordinator within the building. | Technology coordinator is not specialized in particular technology products and often provides minimal professional development sessions due to other responsibilities within the school. | Funds must be diverted to properly train staff on technology use within the classroom during common planning time so that technology may be incorporated into unit plans and yearly goals and outcomes. |
| The mission statement of the technology plan states that students should be exposed to technology daily. | Vague mission statement does not address the specific ways in which students must be exposed to technology. | Students must meet specific goals they must meet when it comes to technology use including proficiency in oral and visual presentations, typing, and digital collaboration. |

As can be seen, the gap that exists between the current state and the desired state involves the lack of specific expectations and goals and the lack of differentiation that exists within the school. Students within the building vary in skills and needs, and as a result of this there needs to be more of an effort placed on meeting the specific demands of grade specific students. This is seen in the first three issues that are addressed above. Instead of looking at overall student computer ratio, I feel that more of an emphasis should be placed on the ratio of students within a grade cluster to computers. For example, students at the higher grades should be exposed to more research than students at the lower grades, and thus should have more computer access than those at the lower grades. This is not to say that students at the lower grades should not have equal access to technology, but these students should have their own specialized area with computers that have specialized programs to enhance technology and skill acquisition.

The school has taken steps in this direction, outfitting the Macs with GarageBand for music classes. Unfortunately, a $3000 investment in a program that is meant to encourage growth across all levels does not seem to be the best option available. In addition to this, the software that is being purchased is only being used to address skills that are covered on state-wide tests that measure growth in areas such as reading, leaving other necessary skills that could be 's strengthened by the use of technology absent from the school's technology budget. An example of this could be the purchasing of Glogster licenses for students in grades 4-8. Glogster is a web 2.0 tool that allows students to create digital presentations that allows for an inclusion of multimedia in ways that traditional three sided poster boards cannot. The cost of enough licenses for the 4-8 student body and ten teachers would be $460. According to Hue (2013), the use of web 2.0 applications in the classroom have been found to positively impact student learning. Thus, more money should be allocated to create a learning environment that is not just focused on the 'skill and drill' concept that currently governs what effective learning, and by association teaching, is or is not.

**Current Technology Needs at Edgebrook Elementary**

As the technology state at Edgebrook Elementary currently stands, the school has a need for more differentiation, more professional development, and more hardware to ensure that the specific needs of all students are met. As has been stated before, this school benefits from have alternative sources of funding that makes it possible for the school to have a much lower student to computer ratio as compared to the rest of the district. To keep improving upon the results that the students at this school have, more of an effort needs to be made to get the ratio down to 1:1 so that the schools overall educational technology mission of exposing students to technology daily can be met.

In addition to this, the school must bring in additional support for teachers in the form of professional development. Though the technology coordinator that works within the building daily can provide some support for issues regarding trouble shooting, it would be more beneficial to have specialists in areas such as SmartBoard training in order to alleviate some of the apprehensiveness that currently exists within the building in regards to using technology. Otherwise, the inherent benefits of tools such as SmartBoards are lost and become nothing more than expensive projectors, which would be a significant waste of resources.

Finally, there needs to be more of an emphasis placed on differentiation. Because of the increased funding that is coming in, there should be an increase in the amount of specialized technology tools that could provide more benefits for specific parts of the student body. I have discussed using Glogster for the older grades previously, but there are other population groups that could benefit from differentiation. 3.7% of the current school population are English Language Learners (ELL) (Edgebrook School Technology Plan, 2013). There are numerous technology programs that specialize in developing these skills that go beyond what Accelerated Reader can provide for these students.

**Goals and Objectives**

Goal: Improve technology proficiency among students in all grades

Objective: Invest in a variety of educational technology to ensure that students of various levels of skill and exposure can continue to develop their proficiency in technology through their time at Edgebrook Elementary School

Goal: Expose students to educational technology on a daily basis

Objective: Provide professional development to all teachers so that teachers can implement technology within their classrooms in a meaningful and effective manner on a daily basis.

Goal: Improve the student to computer ratio within Edgebrook Elementary

Objective: Invest in hardware so that students may have more access to computers to meet overall goal of student proficiency in various technology skills associated with a 21st century education.

The goals and objectives provided above will serve to actualize the vision for educational technology by ensuring that the most important stakeholders within the school, students, are provided with the exposure necessary to develop the skills that the school currently has for students involving technology. The mission of Edgebrook Elementary is to "sustain academic excellence and to provide our diversified student population with a rich, challenging curriculum which supports each student's college and career readiness" (Edgebrook Elementary, 2014). These goals align with the mission statement because it acknowledges the need to address the diversity found within the school, not only on racial, gender, and socioeconomic levels, but also within skill levels. It is essential to recognize these needs from the on onset of planning. The school also addresses the need for technology within their mission and learning standards by calling for a need for more collaboration and cooperation with technology-assisted exploration. This once again begins with the ability for students to be exposed to technology on a daily basis and providing teachers with the knowledge of technology that is available to them.

**SWOT Analysis**

|  |  |
| --- | --- |
| Strengths  Funding that exists from outside of the district is growing.  Strong base for technology implementation with existing programs. | Weaknesses  Very diverse population within the school can make it difficult to address all needs. |
| Opportunities  Continue looking for opportunities to implement more technology into the building.  Look for local support to improve programs within the school. | Threats  Continued budget cuts at the district level may limit opportunities for growth.  Transient population can make it difficult to foresee future issues within the school |

The future of technology at Edgebrook Elementary looks bright as long as the funding that exists from outside the district continues to support the existing funds that the district provides. Despite continuing budget cuts that threaten all schools within Chicago Public Schools, Edgebrook is able to continue improvements that other schools may be lacking. Yet there remains room for improvement, particularly with addressing the variety of needs within the school. To do this, the school can continue to reach out to the community, particularly with local businesses, that may be able to provide more funding or partner programs that allow students to create real life connections to what they are learning in the classroom.

**Part 2: Reflection on Dispositions**

As a technology leader, the role of vision is essential toward sustaining the long term success of a technology program within any environment. As technology continues to grow and change, it is important to develop short and long term goals to ensure that all stakeholders involved in the educational system are well served. Otherwise, it is probable that the technology that is implemented will not be nearly as effective as was originally planned, or worse it will be outdated and not current if the long term planning is not well thought out.

             Systematic thinking is required to develop a gap analysis because the management of schools goes beyond the day to day activities that occur within the school. This is important to have the foresight to anticipate future changes as well as addressing needs as they continue to appear. As a technology leader, it is important for me to identify the ways in which new technology must constantly be implemented into our schools so that our students are not learning information that is already outdated. For example, as the world begins to function more within cloud based technologies, our students need to also be exposed as it is occurring so that they may be up to date. To our benefit, our students can be their own advocates in many instances, and this is something that we as educators should take advantage of. More than ever before, it is possible for our students to be more up to date on technology than their teachers. Though this is a frightening phenomenon, we must embrace it so that our students can be as best served as they can.

References

Edgebrook School Technology Committee. (2013). *Technology Plan for Edgebrook Elementary School.* http://www.edgebrookschool.org/ourpages/auto/2013/8/28/70220686/Edgebrook%20Schoo l%20Technology%20Plan%202013-2014.pdf

Hew, K., & Cheung, W. (2013). Use of Web 2.0 Technologies in K-12 and Higher Education: