

The image features an abstract graphic design with three blue circles of varying sizes, each composed of concentric circles in different shades of blue. These circles are arranged in a vertical line, with the largest at the top, a medium one in the middle, and the largest at the bottom. Two thin blue lines intersect at the top left and extend diagonally across the page, framing the circles. The overall aesthetic is clean and modern.

INTE 6930 ILT Internship

Creating, Facilitating, and Sustaining Technological Change

Adrian Neibauer

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Background

I teach 5th Grade in the Cherry Creek School District. Our elementary school has been a year-round school with approximately 800 students since its doors opened in 1994. However, starting in August 2012, it will move to a traditional calendar. This is due to declining enrollment and is a very big change for the school. The 2012-2013 school year will be the first time in seventeen years that the entire staff will be in the building at the same time. No one will be “off-track” (a term used to indicate when a teacher or other staff member is on their staggered three-week vacation). Staff meetings, professional development, and other communication will now involve every staff member at the time decisions are made. There will be no need to communicate information second-hand via team liaisons.

Our school’s current demographic is as follows: 12% Asian American, 8.3% African American, 6.9% Hispanic American, and 72.8% are Caucasian. Seven percent of our student population qualifies for free and reduced lunch.

About three years ago, our fifth grade team applied for (and won) a 21st Century Learning Morgridge Family Foundation Grant that supplied each team member with a SMART board. As per our grant agreement, my teammates and I attended a year’s worth of professional development around using and sustaining SMART technology in our classrooms and building. We learned everything from basic lesson design, to more advanced techniques for getting higher student engagement through technology.

My Role

Although a full-time classroom teacher, I became the building’s SMART board technical support for any and all issues IWB related. During this time our school was in dire need of consistent leadership (both administrative and collegial). We did not have much of a shared school vision since our last principal left unexpectedly. Our new principal has spent much of the last school year (2011-2012) organizing our staff around a common goal.

Since my colleagues already viewed me as a “tech. support” person, I decided to form a building technology committee in order to begin drafting a technology plan. I wanted to be a school leader, and I felt that through technology implementation and professional development, I could.

Throughout this past school year, I have provided our staff with much more than technical support. Our committee taught the staff basic troubleshooting skills so that they could not rely so heavily on one person for using technology. We also provided professional development that stretched them beyond basic use, introducing many of them to Web 2.0 tools, Microsoft Outlook email, and SMART board resources. My role within my elementary school has changed considerably since last year.

Problem

We have underused technology in every classroom. One year after our SMART boards were installed, our then school's principal, along with the Parent/Teacher/Community Organization (PTCO), used the school's current budget and raised matching funds to install a SMART board in every working classroom. However, this influx of technology came with no planned professional development, aside from basic operation. Unfortunately, I felt then, and still feel now, that many of the SMART boards are not being used to their full potential, and that the accompanying software used to create interactive lessons for the SMART board is being used inappropriately.

In order to successfully diffuse technology into the school, turning implementation into regular, active use, there must be leadership, commitment, and participation.

Constraints

There were some obstacles to creating a technology committee, designing and implementing a building technology plan, and professional development:

Higher than average percentage of “Followers” and “Refuseniks” and lower than average percentage of “Empowerable” and “Pacesetters” (Scrogan, 2009, p. 122)

Our staff is comprised of a large percentage of veteran teachers who have been with the school since it opened 18 years ago. Normally, I would not equate veteran status with those who are skeptical or unconvinced, but this particular group of teachers has power in the building that is unmatched and unquestioned. It is clear that this group of teachers sets the status quo. If I cannot piecemeal or co-opt them (Scrogan, 2009, p. 128), I do not have much of a chance at implementing a new technology plan.

New Administration

Our new principal is eager to put her own stamp onto the school. She has already set out her vision and action plan for our past 2011-2012 academic school year. Sadly, technology figured into only a small part of her plan. My initiative to creating a technology committee, creating a technology plan, and implementing professional development may be too much for this new principal. I fully anticipate her to ask me to “wait a year” or postpone my project.

Spread Too Thin

For the last five years, I have inserted myself into various committees I feel a great passion for (mainly, closing the achievement gap and male literacy). I have created an after-school writing program for boys; I wrote a grant for and designed a comic book literacy program, which I piloted last year in my class; I am earning my Masters degree in Instructional Learning and Technology; I have three children under the age of five-years old; I recently purchased a new home. Basically, I have a lot on my plate at the moment. At the time, I was worried that this committee and technology plan would be too much for me to handle. However, I was the only one willing to undergo this endeavor.

Lack of Participation

Based on the current 2011-2012 school year's reaction and reception to the technology committee's presence, I anticipated some resistance from administration. Fortunately, we were given many different staff meetings to present technology; however, during meetings, about a third of the staff was resistant in participating. For example, these staff members routinely did not bring their laptops and/or Tablets for staff meetings, and often were continuously disengaged from the presentation.

When the technology committee issued a "mandated" customer satisfaction survey in order to evaluate our presentations, less than 25% actually completed the questionnaire. The data, although insightful in determining some of our school's culture surrounding technology, did not accurately represent the predominant philosophy of the school.

It is vitally important that this professional development, although created by the Technology Team, be mandated via the principal. The 2012-2013 school year will be our first year under the traditional calendar, so all staff will be present at all meetings. We have a considerable amount of other change occurring during this upcoming school year, including implementing a new Behavioral Development program in the building, Equity/Achievement Gap professional development, piloting a Recess-Before-Lunch initiative, and a completely new school schedule. If technology is not discussed in the same manner as these other issues, then I fear it will continue to be given lip service.

Goal(s)

Although I teach the fifth grade, my graduate work in the ILT program led me to conduct necessary technology needs assessments and spearheading a new technology committee. My goal has been to provide leadership in helping my staff not only adopt new technologies, but more importantly, effectively use the technology we currently own. Therefore, I spent this past school year conducting technology audits, specifically assessing the use (or nonuse) of technology (specifically, SMART boards). Many of the SMART boards have become very expensive projector screens. The accompanying "Notebook" software used to create interactive lessons for the SMART board is being used to create glorified overhead transparencies. It is shocking that tens of thousands of dollars were spent on technology that is designed to increase student engagement, deepen critical thinking skills, and increase student motivation, yet they are ***not being used***.

The data I received from the audits, led the technology committee ***to create and sustain meaningful professional development*** for the staff. Much of this last school year has been spent troubleshooting basic technology needs; however, I have presented at a variety of meetings, slowly introducing convenient technology (i.e.: Tablet use, Microsoft Outlook use, Wikis such as GoogleDocs). I am preparing to enter the 2012-2013 school year with organized and supportive professional development that will transform my school into a 21st Century, collaborative team.

Project Report

My elementary school lies in a technology paradox. We have an abundance of technology (as compared to other schools in the district), yet this technology is not being used to its potential. My original intention with the Technology Team was to not only create a committee responsible for technology, but to institute real change in the building. I naively thought I could create a new culture of learning in a single school year while providing direction for instructional design and creating a building technology plan. Rogers (1995) discusses diffusion of technology as a series of stages, where the process occurs over time.

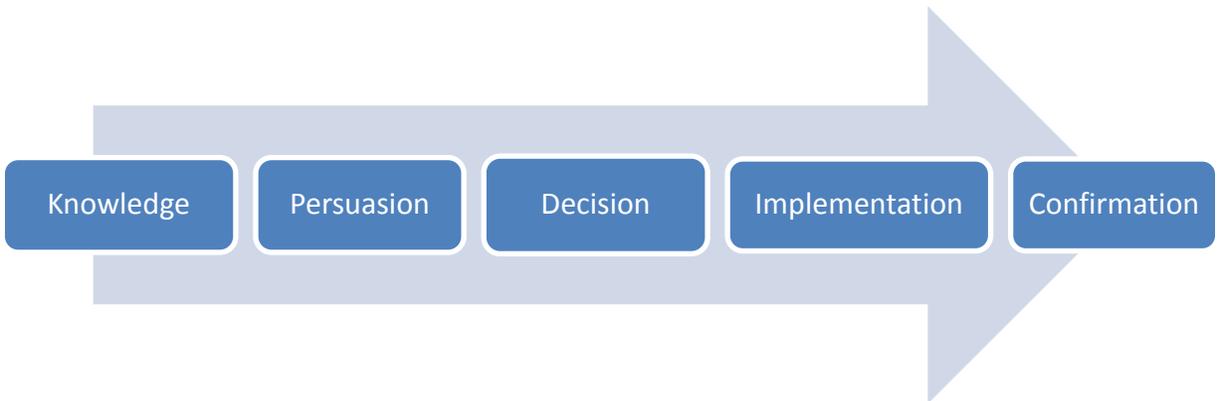


Figure 1. Five stages of Rogers' (1995) Innovation-Decision Process Model.

The adoption of an innovation is not a single act. Each step in the process may take any amount of time, depending on the group of individuals. For example, in the 2011-2012 school year, I feel that I was successfully able to take my staff into the "Knowledge" stage, were they gained "basic understanding" of the building's technology, into the "Persuasion" stage, where staff members are "forming positive and negative impressions of such technology" (Rogers, 1995).

I plan to intervene next year to a staff that closely mirrors Rogers' (1995) estimation of the bell-curve distribution of a group's feelings toward change.

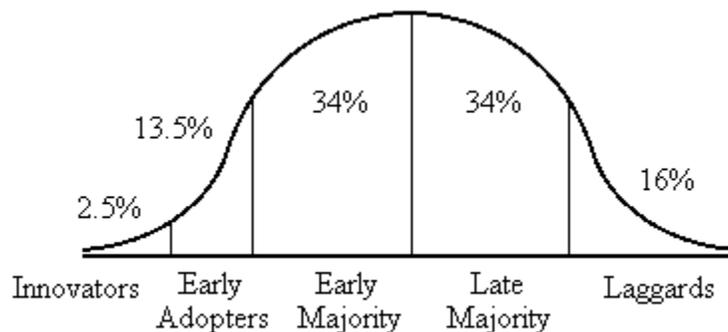


Figure 2. Hypothesized distribution of adopter categories within a typical population.

My staff is “more likely to adopt [professional development] if [it] offers them a better way to do something, is compatible with their values, beliefs and needs, is not too complex, can be tried out before adoption, and has observable benefits” (Ely, 1999). In order for next year’s professional development to be successful, I will need to be cognizant of Ely’s (1999) eight conditions of implementation, so that I can constantly evaluate our progress toward a common goal.

Results

I was able to accomplish a great deal more than I originally anticipated. I began with the original intention of creating a building technology plan; however, it soon became apparent that this was not the direction my school needed. Instead, we required three main learning objectives:

1. Technology Committee/Team
 - a. Training staff in technology troubleshooting
 - b. Introducing new technology as needed
2. Technology Needs Assessment
 - a. School-wide participation in order to determine future professional development
3. Technology Professional Development for the 2012-2013 school year.

In essence, my original idea of a building technology plan morphed into the building needs assessment and analysis. Instead of looking at each objective as a single act, throughout the school year, one objective became a process by which the next objectives followed. For example, have a successful technology committee was necessary in building trust within the building. Once we gained that trust, we were not only able to introduce new technology, but we were able to implement a vital needs assessment.

The last day of school for the 2011-2012 school year was on June 20th. Therefore, the results of the needs assessment will not be available until the beginning of the 2012-2013 school year. I was able to receive minimal data from an initial needs assessment given early in the school-year, and a technology committee satisfaction survey issued in the last month of school (see attached survey results).

The lack of participation in both surveys tells me a great deal about our school needs for technology professional development. Being on a traditional calendar schedule will allow staff members to be actively in the building during all staff meetings and/or professional development meetings. When surveys are issued, they can be taken immediately, giving us instant results to disseminate and analyze.

In the end, I feel good moving into a new school year. With the above learning objectives and the tools I have gathered and created throughout this last school year, we will be implementing sustainable technology quickly.

Reflection

I learned that I cannot accomplish my technology leadership goals alone. I need the support and collaboration of my colleagues and administration. I was hesitant to ask for help because of the current culture in our school, but I was able to find about a dozen individuals who would work with me (including our principal) to take our elementary school into the 21st century.

I also realized that promoting the development and implementation of technology infrastructure, procedures, policies, plans, and budgets *while* creating sustainable change is a major undertaking. I feel successful about contributing to the shared vision for my elementary school in its integration of technology. I fostered an environment and culture conducive to the realization of our new shared vision.

References

Rogers, E.M. (1995). *Diffusion of innovations, 4th ed.* New York: Free Press.

Scrogan, L. (2009). *Tools for change.* Abu Dhabi: Exsym Press.

Surry, D.W., & Ely, D.P. (2001). Adoption, diffusion, implementation, and institutionalization of educational innovations. In R. Reiser & J. V. Dempsey (Eds.), *Trends and issues in instructional design and technology.* Upper Saddle River, NJ: Prentice-Hall. Draft online:

<http://www.southalabama.edu/coe/bset/surry/papers/adoption/chap.htm>

Appendix

Initial Needs Assessment (given October 2011)

<https://docs.google.com/spreadsheet/viewform?formkey=dHJxVEd1bEtyR0MwZGZxMUhqTzBrNVE6MQ>

Summary of 8 total responses to initial Needs Assessment

https://docs.google.com/spreadsheet/gform?key=0AsRZF9v8k_1OdHJxVEd1bEtyR0MwZGZxMUhqTzBrNVE&gridId=0#chart

Technology Team Satisfaction Survey

<http://aneibauer.poll daddy.com/s/technology-team-satisfaction-survey>

Technology Team Satisfaction Survey Results

<http://poll daddy.com/surveys/1848468/report>