Doing Education in the 21st century: Technology in the Classroom

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Trinity Presbyterian School is a Christian school that was established in 1970 by Trinity Presbyterian Church. While TPS is evangelical in nature, most of its families are churched. The school is dedicated to educate the whole child: intellectual, spiritual, emotional and physical. We are located in Montgomery, AL and serve close to 900 students from PreK-12.

Goals:
--Enhance the teaching and learning at Trinity
--Promote more of a student centered learning. It seems intuitive that if good teaching is going on, then learning must be too. I have learned that educators do not necessarily see it this way. Student centered learning allows the student in some ways to dictate his or her learning path.
--Collaboration amongst both teachers and students.
--Engage in new ways of teaching and learning. e.g. creating content in new ways that demonstrate the student's understanding of the material.

Results:
--We saw a dramatic change in faculty culture. We put a culture of risk in play and the faculty responded very positively.
--We now have over 800 devices (MacBooks, MacAirs, iPads and iPod touches) deployed across campus.
--There is a renewed emphasis for our teachers in all areas of professional development; especially in the technological world.
--Tech coaches (teachers who both teach some classes to students and then teach teachers how to use the technology in their classrooms) came into existence last school year.
--Teachers are now using a variety of new techniques in the classroom. This coming school year several of our teachers will be using what is called the flipped classroom. (students watch the lecture at home and do a variety of other things in class.
--An overall change in how we do education at Trinity!

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Project Overview

Background

Tackling something of this magnitude requires vision, persistence and dedication. A major change of this sort should always start with a very basic question. How does one go about changing the culture of a school? We educators are notoriously known for being rather stuck in our ways. Put it this way: we have never been the easiest group to move in a new direction. Skeptics abound and, by the way, why would I change anything if has been working for years? (not that it was necessarily working well!) Let me add another layer of complexity to my question. How does one go about changing the culture of school that has only used traditional teaching and learning to one that uses technology in one form or another? That is where my story begins.

I had the privilege of taking over the helm at Trinity in 2006. It was a good school that had been in existence for close to 40 years. I had been told it often takes somewhere in the neighborhood of five plus years to bring about systemic change, so we started down that road. We began to actively ask what should we do to make sure we are fulfilling our mission statement. Our mission statement says, "To glorify God by providing for students the highest quality college preparatory education, training them in the biblical world and life view, thus enabling them to serve God in spirit, mind and body." It was simply natural to ask obvious questions such as whether or not we did provide the highest quality prep education. It was not so obvious to ask whether or not changing the vehicle by which we delivered teaching and learning would help provide what we said we were providing. Thus began the soul searching.

Project Focus

Our story at Trinity in somewhat unique in how we moved from A to Z. In some ways we backed into where we are now with respect to our network, etc. due to a personnel change. One thing led to another and before we knew it our technology infrastructure was securely in place. In fact, without bragging too much, we simply have one of the best network systems around our area. Having spent the money upfront to catch up and then upgrade our system actually wound up being a substantial step in the direction of a 1:1 program.

The summer of 2009 brought about a discussion that changed Trinity forever.

One of our administrators went to an Apple training session in Mobile, Al. Subsequent discussions followed from his visit and by early 2010, a group of us went to visit the mothership (Apple headquarters) in Cupertino, Ca. The rest is now history. From that point on, while many steps unfolded over the past three years, the 1:1 laptop initiative at Trinity School became a reality.

The summer of 2010 saw all teachers receive MacBooks. They were instructed to begin experimenting during their time away and come back to school with some questions. No pressure was applied at this time. A much more comprehensive plan was put in place beginning the next school which lasted through the following summer. Students in the 7th and 9th grades received their MacBooks at the beginning of this past school year. The current plan culminates this August when all students in grades 6-12 will be educated using either MacBooks or MacAirs (specifically, grades 6-7 will receive MacBooks and grades 8-12 will receive the MacAirs).

In order to get where we are now, we planned and planned and then planned some more. I learned (yet again) that even when you think you planned, you probably have not planned enough. In addition, you can never spend enough time casting the vision so others know, understand and catch the vision. I tried to capitalize on as many occasions as possible to set the course for where we were heading and why. By the time I officially began my project, though, we were actually in phase 2 of 4. Working with Rob Elliot and Glenn Vos proved to be invaluable. Both men were able to help me reflect on what we had already accomplished, assess how well we did, analyze anything that needed to be changed, change what needed to be changed, and ultimately keep the train moving forward.

Results

- We saw a dramatic change in faculty/staff culture. Everyone on the faculty has embraced our move toward technology; some more readily and quickly, but all have come around to understanding the purpose behind the move. I have even had some teachers argue the positives of changing to the laptop vs. iPad. (they wouldn't have necessarily done that a year plus ago) Technology has simply become a part of who we are now.

- By the start of school this August, we will have deployed of over 800 laptops, iPads and iPod touches. That number includes all teachers, students in the 1:1 program, and all other devices used by students throughout the school.

- We came out of this move with a renewed focus on professional development. We also had a new focus on technological professional development. We

attended a conference called iSummit last summer and another group is headed back this summer. In any group of educators, there will always be some who get it sooner than others. We profited from this and had those who *got it* first, teach those who did not. This worked very well!

• After seeing what many schools did, we followed suit and put in place what we call tech coaches. Tech coaches are teachers who teach a few classes and then use the rest of their time to help teachers with implementation of technology into their teaching. This move proved to be absolutely invaluable in both winning over teachers to the new world of technology as well as the practical teaching of the hows to teachers!

• A variety of new technological vehicles have been implemented to teach students. The use of eTexts (some interactive) and the flipped classroom are just a couple we are using. The flipped classroom has gained tremendous momentum since www.kahnacademy.com came into play a few year ago. In essence, the flipped Math classroom has students listening to the lecture at home and doing problems in the classroom the next day. This allows the teacher to hone in on what is absolutely essential, send it home to be viewed, and then use the next class period to take the students down new roads.

• If you were somehow able to see Trinity in the 2006-07 school year vs. the 2012-13 school, one would see a significant change in how we do education on our campus! The implementation of technology has allowed our teachers to go above and beyond what they used to do. I firmly believe the more they explore the further they will be able to push the horizons of their class and ultimately expect and receive more from their students.

Lessons Learned

When all was said and done, several new items were in play. We created what is called a culture of risk in which we told teachers it would actually be held against them if they did not attempt to use technology. In essence, we gave them permission to fail. We took away the fear of not knowing what they were doing and gave them permission to go for it anyway. We wanted them to understand the use of technology in the classroom only enhances what is already taking place. There was no reason NOT to use it!

As I look back on my project, I can honestly say it was time well spent. I am truly grateful for what I set out to accomplish. There is a very long list of results, but here are just a few of the takeaways from what I did. Moving a school in a technological direction will cost you a lot of money. There are many ways to skin a cat, so make sure you sit down, plan it out and be a good steward.

Changing a teaching/learning culture is very difficult to do. As I said earlier, educators are rather notorious for doing things the way they have always been done. I heard Jim Collins in October of 2011 and he argued that those leaders/companies considered to be great had to always be moving forward. He qualified what he said by using the story of two men making their way to the South Pole. The one man used a relentless twenty mile march each day. Moving a school toward technology is just like Collins' illustration. It is a slow, steady march. Not only must be both systematically planned and implemented, but there will be many times when you want to give up. Is it worth all the time, effort and expenditure? There will, of course, be a naysayer or two along the way. Stay focused and committed. Bottom line: the way we have to do education in the 21st century is very different from the way we were all taught years ago. The issue at hand is how much we will embrace what is before us. I personally believe we all need adopt it in some way, shape, or form because it is coming and coming fast.

As I conclude my thoughts, let me offer one last word of advice. While technology is obviously key to where I believe education needs to go, it is not **the** key. Do **NOT** get caught up in the device game. Using technology is simply another vehicle in the learning process. Teachers teaching so students can learn and has always been and will always be **THE** key to what makes our schools go. Technology is only a tool!