

**TechQuest:**

**Implementation of SmartBoards at**

**Bethesda North Hospital's New Training and Simulation Center**

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## Plan Development

Bethesda North Hospital has just completed renovation of its new Training and Simulation Center. The new center occupies 6500 square feet of remodeled Intensive Care Unit, which will now be used for educational purposes. Inside, three rooms are dedicated for meetings and debriefing sessions following learner engaged, immersive, medical simulation experiences. The rooms each have a Smartboard and dedicated computer with internet connection. My project is to train our faculty and simulation facilitators on the Smartboard's operation and its educational



enhancement opportunities. These educator turned-learners represent the array of learners; some are resistant to change in general and technology specifically, while others are quite innovative and “techy.” I will develop a professional development program to allow these educator/learners to gain the needed knowledge and experience to effectively use the Smartboard. I will use training resources available from Smart Technologies as well as other materials collected from our collaborative union of technology professionals, using the World Wide Web as my conduit.

As a teacher, I will include in the professional development: student interaction, planning, research, preparation and dealing with individual learner differences. Each of these areas requires a commitment of time and energy to complete, but each is integral to the others. Failing to give adequate effort will yield less than optimal results. In the preparation phase, I used many internet search engines and information gathering techniques. I used the MSU library resource site, Metacrawler, Dogpile, Google, Google Scholar, Youtube, Yahoo, my hospital's library and

their subscription search engines to find my instructional materials. The Smart Technologies site has an abundance of information, but I enjoyed seeing other sites and their spin on teacher education. I also contacted the Technology Specialist at Butler Technology and Career Development Schools for advice and information. As I developed my plan, I have incorporated blended pieces from these resources to create my hybrid educational program. I have learned that the search engines give largely the same results if the same parameters are entered. Slight changes in search syntax yields widely different results, however. I searched using the Boolean operators Smartboard, "Smartboard", Smart Board, Smartboard Software, Smartboard Teacher Education, Smartboard Training, Smartboard Faculty Development, Smartboard Interactive Whiteboard, Interactive Whiteboard, Innovation Whiteboard, Electronic Whiteboard, Smart Technologies, Smart Development, Smart Board + Resources, Smarboard + Training, Smartboard + Software, Smartboard + Expert, and Software for Smartboard. Without a doubt, the best non-vendor website was *Innovative Educator 2.0* by Naomi Harm. This site is aimed at the university level adult learner and has a wealth of valuable information.

<http://ie20-naomi.blogspot.com/2009/03/smartboard-traaining-at-university.html>

As learners, my students will deal with *their* unique differences, learning styles, prior knowledge and experiences. My endeavor is to turn individual challenges into opportunities for each learner. Their exposure to this new technology is hopefully only the beginning of a journey in expanding their use of technology in



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education. My aspiration is that once they have tasted my “cool-aid” they will continue to be technology-engaged educators with a focus on learner outcomes.

The subject of this education will include a new technology, its impact on education, new delivery of concepts and methods, differing attitudes, perceptions, misconceptions, technical skills and educational relevance. Each of these areas could be a course of its own. I intend to expose the learners to the basic concepts while allowing exploration of their thoughts and views.

Smartboard training has been shown to improve the educational effectiveness in various educational arenas. While there is more available data about the K-12 experience, data continues to demonstrate that message retention and learner engagement is improved with the use of interactive whiteboard technology. According to a University of New Brunswick study, *Applying SMART Board Technology in Elementary School Classrooms*, “Focus group participants reported greater ease in engaging all students and maintaining their attention for longer periods when lessons were taught using SMART Board technology. Similarly, survey results also revealed that over 90% of participants reported that students were more engaged in learning activities when SMART Board technologies were incorporated into instructional activities. Observational data also supported increased engagement of students when SMART Board applications were used in conjunction with classroom learning experiences.”

### **Implementation**

My project implementation began with an introductory session where I introduced my fellow faculty members at Bethesda Hospital to Smartboard technology. I explained how it is physically connected to the computer system, how the Smartboard works by using a resistive technology display, and how the screen functions as a touch screen. I covered how the pen and

eraser sensors work allowing for dynamic on screen annotation with multiple colors and styles. Then I introduced Smart Technologies Two Minute Tutorials online. We started with “How to Orient” the board and why it is important. Next, we covered the “Touch, Write and Save” functions and how these can be used to our advantage as faculty members in the classroom. We went into “PowerPoint Implementation” next and saw how Smartboard and Smart Technology can work in concert with a Microsoft PowerPoint presentation. Our next tutorial was “Ink Aware” which is the handwriting recognition function that converts handwriting to printed text. This function also works with other Microsoft Office applications such as Excel, Word and Access. Everyone thought the handwriting recognition/conversion was amazing! We then started into the “Smart Notebook” software Two Minute Tutorials, however there is a long series of tutorials on this program and as our time was nearing the end we did not complete this set. I built in time for the participants to actually use the Smartboard as well as a question and answer period. We did some collaborative experimentation, brainstorming and exploration, which allowed the participants to express their thoughts and feelings. Discussions mainly revolved around learner engagement and participation in activities. We briefly explored the crossword puzzle and several human anatomy activities. The group was energized and excited by their Smartboard training and is eager for more development time to learn and explore the new technology.

I was surprised that everyone was very eager to use the Smartboard. I expected some initial resistance to the new technology during the training, but there was none. The best news is that we have eight weeks of open time this summer for faculty development, including using the Smartboards and it will be a great opportunity to practice and perfect our skills with the new

system. Faculty members do have vacations planned during this break and I will need to develop a plan to get them the same training on an alternative schedule, prior to the beginning of the new school year. My “bump in the road” was interruptions. It was difficult to stay focused and on topic during our session as faculty members were called away to deal with various issues.

Trying to carve out quality time is a challenge for our faculty members especially now with the annual end of year chaos. I am proud that we are off to a fantastic start and the faculty members are very excited about using the new technology in next year’s classes. I am looking forward to continuing the faculty development process and seeing the new school year begin, following my TechQuest project.

### **Going Forward**

My project is underway as planned and will be a work in progress over the next several weeks. Ongoing follow-up with individual faculty members will be provided as needed. My early project returns are very satisfying; with almost complete faculty support and a strong excitement level. The eagerness of the faculty to learn about the Smartboards surprised me. Their enthusiasm and excitement indicate that we are on the brink of a successful move forward. I would recommend that other educators conduct extensive topical research, collaborate with fellow faculty development contacts and use the many available resources prior to developing their programs to ensure a quality result. Bethesda North Hospital is undergoing a transformational change in advancing education and technology. In recent months, new initiatives include creation of the new Training and Simulation Center with its digital recording of advanced medical simulation sessions, the addition of SmartBoards and a new student response system. Each of these efforts focuses on improving education through engagement and interactivity. The future of education here is very bright!

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