2014

Teaching and Learning with Smart Board Technology in Middle School Classrooms

Elizabeth Lewis Pourciau
Walden University

Walden University

COLLEGE OF EDUCATION

This is to certify that the doctoral study by

Elizabeth Pourciau

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Dr. Maryann Leonard, Committee Member, Education Faculty
Dr. Marvin Putnam, University Reviewer, Education Faculty

Chief Academic Officer

Eric Riedel, Ph.D.

Walden University
2014

Abstract

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Doctoral Study Submitted in Partial Fulfillment

Of the Requirements for the Degree of

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Abstract

Millions have been spent in the Southern Gulf Coast states on equipping classrooms with Smart Board/interactive whiteboard (IWB) technology without an implementation plan for effective usage in lesson design and without teachers knowing how to best use these boards. The purpose of this project study was to explore the challenges and barriers that teachers face while using their IWB. Framed by the theories of adoption of technology within the K-12 classroom and self-efficacy of teachers regarding technology, the guiding research questions identified the challenges related to integrating IWB technology into lessons, as well the needs of teachers who are trying to implement this technology. This mixed-methods case study design included a convenient sample of 8 teachers and the data sets were collected by interviews and surveys. Interview analysis included coding and member checking and 3 themes emerged during analysis: (a) technical difficulties, (b) lack of sufficient professional development, and (c) finding resources for the Smart Board. The survey analysis entailed descriptive statistics and those survey results combined with the interview analysis found that teachers have problems incorporating Smart Board technology and require professional development in regards to integrating IWB technology into effective and efficient teaching and learning. The resulting outcome of this research was a comprehensive plan for an ongoing professional learning community designed to assist the teachers in gaining knowledge and skills needed to integrate IWB technology. This knowledge will improve professional practice at the local setting and provide a model for such training at the district level and beyond.

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Dedication

I dedicate this project to those who strive for success. Never let anyone tell you-you are not good enough or question your motives. Everyone can succeed. Do not let anything or anyone keep you from achieving your goals. It always seems impossible until it is done.

Acknowledgments

This project study was the final leg of my academic journey toward my goal of achievement. The writing of this project study was one of the most-daunting challenges I have ever had faced. The following people have helped me, without them, I would not have the support needed to finish this journey. To them I give my deepest appreciation and gratitude.

Dr. David Falvo helped me through to the end of my project. He always knew what to say to get me back on task.

Dr. Maryann Leonard helped me find the pieces of the puzzle I needed to make sure things were just right.

The Walden Faculty and Staff supported me throughout the entire process of completing this doctoral journey.

The administration, faculty, staff, and students of my present teaching assignment; their encouragement kept me working toward my final goal by always checking to see if things were moving and what could they do to help. To those teachers who chose to help me, I say a very special thanks to you.

My dear friends, JoAnn, Ed, Simone, Shawn, Cindy, Oliver, Nicole, Chris, Emily, Sarah, & many others are my backbone of support, without you, I could not have made it. Thanks for reading, rereading and giving me other insights to this project. Thanks to all for rescuing me from myself at times, just to keep me sane; also for being my cheering section.

My Mom and Dad, you both were so supportive of me. It was very difficult to let you go. Now that both of you are together, I hope you can smile down from heaven knowing I have completed what I set out to do and accomplished one of my goals. I also hope that you are proud of me, and the accomplishments made. I hope of you will continue to look down from heaven just to check in on me every now and again.

My son, Brandon, provided me with new ways to see things. I hope I have encouraged you to continue your journey toward success in your career. You are an amazing young man. I hope you find the successes you are looking for professionally, mentally and emotionally. I will be there to help support you always.

Lastly, John- What can I say? You are a rock and driving force that keeps me constantly moving forward. Without your help and constant support of my educational goals, none of this would even be possible. Wow! We have come a long way. Now it is time to reap the rewards of our efforts and enjoy the time we have left together.

Table of Contents

List of Tables

Section 1: The Problem

Introduction

At Berry Middle School, teachers have Smart Boards or interactive whiteboard (IWB) technology in their classrooms, but many teachers do not make use of these instructional technologies in a way that may enhance teaching and learning. The Southern Gulf Coast states have spent millions of dollars equipping their schools with Smart Board/IWB technology without a plan to help teachers integrate this technology into effective teaching and learning in their classrooms (Higgins, Beauchamp, & Miller, 2007). Along with the hardware for the classroom, the teachers have been required to attend an initial training event. The initial training event usually comes with the onset of new equipment, but any additional training costs more and, therefore, not considered necessary for teachers. The ongoing demands of upgrades, upkeep, and training for instructional technology is challenging yet crucial to effective practice that integrates or incorporates this technology into instruction.

In 1991, businesses developed the Smart Boards/IWBs for the industry. The local district was not able to afford the placement of the Smart Boards/IWBs in all of the classrooms at that time. It was not until 2009 that most of the classrooms across the district were fitted with the Smart Board/IWB technology. Finally, in 2011, the rest of the classrooms were fitted with Smart Boards/IWBs. The board is an electronic whiteboard with a projector used as a touch screen for the user and the computer to work together while the user is located in front of the board instead of behind a computer (Leah, 2010).

Currently, Smart Boards/IWBs equip many classrooms with an interactive method for engaging students during instruction.

In 2009, classrooms across the Gulf Coast States added an instruction tool, the Smart Board/IWB. The area held initial trainings for teachers, as the district installs Smart Boards/IWBs in the classrooms. For example, during one session, the presenter demonstrated the basics of what this board was capable of doing without allowing time or opportunity for teachers to try using the technology. After this initial training, teachers returned to their classrooms, and administration expected teachers to use the Smart Boards/IWBs as a fundamental, instructional tool. These Smart Boards are an expensive asset for the classroom, and teachers need to have inadequate training to use them effectively.

In this project study, I identified the challenges and barriers teachers face when incorporating the Smart Boards into the daily routine of teaching. I explored what skills and resources teachers need to incorporate this new technology in their classrooms. Results from this study warranted the development of technology professional development learning community designed to help teachers use the Smart Board effectively and efficiently. This resource will foster collaboration among teachers to provide best practices when using instructional technology with their regular classroom lessons, especially Smart Boards.

Definition of the Problem

In many middle school educational environments, technology is a requirement for lesson design, along with the trend for teachers to rethink traditional methods of teaching (Karchmer-Klein, 2007). Initially, the business industry developed the Smart Board/IWB technologies, but in time, this innovation began to emerge in many classrooms for the potential of meeting the needs of students (Higgins et al., 2007). Teaching whole-class interactivity, the Smart Boards promotes the quality of the lesson (Ashfield, 2008).

At Berry Middle School, teachers are required to use Smart Boards in their lessons daily. Many teachers have had basic training for using the Smart Boards; however, the lack of ongoing and practical training of the integration and use of these Smart Boards/IWBs is causing discontinuity in the regular classroom lesson delivery (M. Ryan, personal communication, January 4, 2013). In my area, and particularly my school, teachers are continuing to experience problems when using Smart Boards/IWBs to enrich lessons in the classrooms. There are multiple professional development opportunities to increase awareness and skills with Smart Boards/IWBs, but many teachers do not participate. Owens (2009) found that teachers gained more support and training by having the training while teaching a lesson, but this is not the delivery model used for the training provided. Additionally, according to Miranda and Russell (2011), several factors hinder technology usage, some of which are at the district level, as well as the local level. Examples of such factors include implementation of programs, limited use of instructional technologies, policies, accountability, and regulations. Miranda and Russell

also stated that professional development for such technology is a factor that must be a part of the school's vision. At the local school, the principal decided that all teachers must use the Smart Boards/IWBs in every classroom, every day (M. Ryan, personal communication, January 4, 2013).

Teachers need additional support integrating Smart Board/IWB technology into their lessons more effectively. The district offers professional development for Smart Board/IWB, but despite the offerings, these trainings do not appear to be the best fit, as teachers reject these opportunities. Initially, teachers received training in the usage of the Smart Board/IWB technology. After the initial training, teachers returned to their classrooms only to find they had more questions regarding the Smart Boards/IWBs. Teacher can attend other workshops after school, during the summer, and on professional development days. During these trainings, teachers have the opportunity to share additional ideas and strategies using the Smart Board/IWB technologies in their classrooms. Many teachers find themselves with more questions about how to incorporate the Smart Boards/IWBs into teaching activities (S. Royal, personal communication, August 20, 2011). Teacher trainings are still available every semester in an afterschool format; other trainings using the Smart Board/IWB technologies remain underused. Without the hands-on participation in the workshop, many teachers were still at a loss with how to include the Smart Boards/IWBs in the everyday lessons for students (S. Ingram, personal communication, October 7, 2012). Keengwe and Onchwari (2009) stated, "Technology is changing the business of teaching" (p. 209); yet, many teachers do

not attempt use of these technologies aiding the delivery of instruction, integrate technology into the curriculum. Teachers also do not have the motivation or desire to add these technologies into the lesson because of the inadequate training using the Smart Boards/IWBs.

The following are possible factors contributing to the lack of using the Smart Board in the classroom: teachers do not want to attend workshops and, the overuse of the same technology every lesson. Other factors may include the ineffective training method, difficulties understanding training, inability to travel to after school hour workshops, and a lack of funding for the purchase of additional equipment. Additionally, in professional development workshops held in the district, teachers stated that they feel the workshops do not prepare them to implement Smart Boards/IWB technologies into daily activities. Teachers fail to understand the purpose or the power of the technology, even after attending workshops and training sessions, according to many of the teachers in the district. Even though many attend the workshops for Smart Boards/IWBs, teachers are in need of follow-up sessions to help with the use of the Smart Boards/IWBs (N. Cefalu, personal communication, December 15, 2011). Teachers need more support incorporating Smart Board/IWB technology into classroom activities.

Changing times in the classrooms causes fear in teachers. Teachers have questions and struggle with the implementation of the Common Core State Standards. New teacher evaluations are an added stress to teachers, as well as the everyday stress of using the Smart Board/IWB in every lesson. The principal of the local school implemented the

usage of Smart Boards/IWBs usage in everyday lesson. The principal's mandate to use the Smart Boards/IWBs creates an additional stress on the teachers beyond creating lesson plans and delivery. In this project study, I identified the types of resources and preferred means for the delivery of the material needed for teachers to feel supported with their work with Smart Boards. The information led to a model for professional development of implementation of Smart Board based on teachers' needs through best practice.

Rationale

Evidence of the Problem at the Local Level

There is a lack of on-going and effective training regarding the use of Smart Boards to enhance teaching and learning in the classroom. Many teachers in the district lack the knowledge and skills to make use of this available technology. Teachers are establishing criteria to understand the usefulness of technology will be the driving force that will fill the educational gap that now exists (Jacobs, 2010). The students using technology will bridge the gap between workers and the commonly used tools of the workforce. Jacobs (2010) stated that the more hands-on practice teachers have with the implementation process of technology, the more likely the teachers will be using the technology to its advantage. Teachers need help keeping up with changes in effective technology usage. Ongoing-and quality professional developments are necessary for teachers to enhance lesson activities. Teachers need to facilitate students' understanding that technology is the key to active learning in the lesson (Jacobs, 2010). Roberts, Shedd,

and Norman (2012) suggested that Common Core State Standards are the scope and sequence for the 45 states that already adopted the initiative. The implementation of the Common Core State Standards has led teachers to change and reevaluate their thoughts on using technology. The integration of technology in all subject areas is required. Students must be self-directed learners. It is the teachers' job to prepare students for the new methods of teaching and learning. Many teachers are feeling overwhelmed because they feel unprepared or underprepared to meet this challenge (Roberts et al., 2012). According to Roberts et al., there is a need to identify best practices for teachers to integrate technology into lesson instruction. Teacher training is a necessary part of the integration of technology into any lesson.

Every class at Berry Middle School is equipped with the Smart Board/IWB technology, including the physical education classrooms and the computer labs (M. Ryan, personal communication, May 28, 2011). Every teacher went through basic training session for the Smart Board/IWB technology. Some of the teachers attended further Smart Board/IWB technology training held by the district, but that was on a voluntary basis. According to the reports generated by the online professional development portal, there were seven different workshops available for the Smart Boards/IWBs. At the training center, other workshops are available in a 2-hour afterschool workshop format.

Two members of the faculty attended the training entitled SMART Board- Simply SMART Board (M. Ryan, personal communication, November 14, 2012). The SMART Board #1- Are you Smarter than a Smart Board? training was attended by 28 of the

faculty, and six of them repeated the training at least two times (M. Ryan, personal communication, November 14, 2012). Nineteen faculty members attended the SMART Board #2- I Am Smarter than a SMART Board training (M. Ryan, personal communication, November 14, 2012). Eleven faculty members attended the SMART Board training #3- One Size Fits All training (M. Ryan, personal communication, November 14, 2012). Eight faculty members attended the SMART Board training #4- Silly Rabbit; SMART Boards are for kids (M. Ryan, personal communication, November 14, 2012). The SMART Board #5 – Think Different, Think SMART training was attended by five members of the faculty (M. Ryan, personal communication, November 14, 2012). Two members of the faculty attended the SMART Board #6- Video SMARTS (M. Ryan, personal communication, November 14, 2012). With a teaching faculty of 55, the number of attendees was low, even for the Smart Board #1 training, not to mention the other Smart Board/IWB trainings. Teachers may not have wanted to attend the trainings because there was not enough support for them to incorporate the Smart Board. Some teachers were not able to attend these trainings at the given times. In this project study, I identified the challenges and barriers teachers face when attempting to incorporate the Smart Boards/IWBs into the daily routines of teaching and explored what skills and resources teachers need to incorporate the Smart Board/IWB technology in their classrooms.

The orientation training sessions were inadequate because teachers had more questions after the session ended. Questions like, "How can I have students use the board

during my lesson?" still go unanswered (J. Fairburn, personal communication, August 1, 2011). Other teachers asked what to do if the Smart Boards/IWBs does not respond. Some of the faculty only attended the initial training; those teachers had the most questions. Training leaves teachers overwhelmed. Even with the training, they are hesitant in using the Smart Board technology to its fullest potential.

At training workshops, a presenter demonstrates for 2 hours, and the teachers are only observing. All workshops start after the regular school day, and teachers must drive to the location of the teaching lab for these workshop trainings. Additionally, teachers receive 2 continue learning units (CLUs) for each of the workshop trainings and two tech points (points count toward items purchased in the point's store). SMART Board training #2-4 allows the teacher to attend twice because of the difficulty of training class and revision of material. The yearly evaluations provide the teachers with a look at the overall effect on teaching. All evaluations include a component for technology usage.

Evidence of the Problem from the Professional Literature

There is a lack of on-going and effective training using Smart Board technology for enhancing classroom activities; many teachers in the district lack the familiarity and technique to make use of this available technology. This research will broaden the body of knowledge by showing the obstacles, barriers, and recommendations for Smart Board/IWB technology in the classroom. With on-going budget cuts in education and the continuation of accountability for teachers, there is a need to improve the professional development for teachers who are using the Smart Board/IWB technology. The

technology enhances the lessons in the classroom, not only because the Smart Board is already there, but also because this technology is an effective learning tool. According to Winzenried, Dalgarno, and Tinkler (2010), there are three benefits of using Smart Board/IWB technology: increased engagement, more visual representation, and more classroom activity. Teachers who use the Smart Board/IWB technology must also the use the correct software (Leach, 2010). Many of the software products that are available may not be the best choice to enrich the lesson. Teachers must consider the interactivity between teaching lesson and the participation of the learner in the classroom (Tanner, Jones, & Beauchamp, 2008).

Smart Boards are one of the tools in the teacher toolbox that is fast becoming one of the most important parts of the lessons. Teachers use the Smart Board as one of the methods to provide media-rich lessons for students. According to Gillen, Staarman, Littleton, Mercer, and Twiner (2007), the Smart Boards/IWBs are expensive pieces of equipment. Teachers may struggle to use these boards in the proper use of routing class activities (Gillen et al., 2007). Teachers may need to wait longer for student responses or do not extend the questioning in combination with best practices. Smart Boards/IWBs can provide the teacher with a variety of strategies more easily than before; yet, children observed using the Smart Boards/IWBs engage the classroom activities at a faster pace (Harden-Thew, 2012). All these ideas of using Smart Board in the classroom will engage the students in the lesson. The lesson will be more interactive, which will provide students with additional learning opportunities.

Technology integration is one way to help solve problems in teaching and learning (Maigo & Mei-yan, 2010). The purpose of technology integration is to increase the effectiveness of teaching strategies and the process of learning while advancing achievement. Maigo and Mei-yan (2010) stated that the use of technology in the classroom has become one of the policies in education. Best practices in adding technology to lessons have left many teachers lost, as the demands of policy to use technology in the classroom outweigh or lack related professional development opportunities for these teachers (Jacobs, 2010).

Smart Boards enables the user to provide a media-rich presentation. According to Smith, Higgins, Wall, and Miller (2005), businesses created Smart Boards/IWBs to make the boardrooms more interactive and provide the necessary information in a timely manner. The education field has just recently started using the Smart Board technology. Smith et al. also stated that the Smart Boards/IWBs help teachers with accommodations for the individual needs of the diverse learners in the classroom. In addition, the Smart Boards/IWBs also speed up the pacing of the lesson (Smith et al., 2005). The main difference, according to Smith et al., between Smart Boards/IWBs and other projection technologies is the Smart Board/IWB's ability to interact on the screen with the material. In addition, they offer a more efficient presentation with the use of multimedia products. Another advantage of Smart Boards/IWBs is it keeps students engaged in class activities. Smith et al. claimed that the Smart Boards/IWBs also stimulate the senses with images and multisensory approaches. One drawback Smith et al. found is the lack of adequate

training to incorporate the Smart Boards/IWBs to their optimal potential. If the Smart

Boards/IWBs are to be effective, they must become a part of the classroom activities

(Smith et al., 2005).

In schools, students understand the technological advances in the classrooms and

around the world better than students did just a few years ago (Bennett, Maton, & Kervin,

2008). These young people have used technology almost every day of their lives (Bennett

et al., 2008). Because technology is a part of their lives, Bennett et al. (2008) stated that

educators must adapt to the learning styles of the students. Many students are already

multitasking and rely on information technology. Even though these students have

amassed knowledge about technology, they still need guidance (Bennett et al., 2008).

Uninterested students may be forgotten or are unable to keep up with their peers. These

multitasking students are learning at a faster rate. One drawback to all of the

simultaneous learning is the loss of concentration and "cognitive overload" (Bennett et

al., 2008). There are variations within the student population, according to Bennett et al.

These variations are important to educators. Bennett et al. stated that it is the job of

educators to foster support for technology usage to help guide the students toward better

practices in using information on the Internet wisely. These supports enable students to

take charge of their learning. Teachers can create a classroom where they are just a

facilitator in the classroom.

Any change to teaching and learning will affect the learning of the students

(Tanner & Jones, 2007). Using the Smart Board/IWB technologies in the classrooms will

help to keep the students motivated because of the increased interaction with the boards and material presented (Tanner & Jones, 2007). According to Tanner and Jones (2007), the introduction of new technology does not change the instructional methods. The teachers must orchestrate all of the pieces of the lesson using technology to motivate the students in the learning process. Students want some fun thrown into the lesson so that the learning will be memorable to them (Tanner & Jones, 2007). Reedy (2008) stated that the classroom is the visual stimulating place. Teachers' lesson plans now include media-rich technology so that students may explore learning in many different ways. Every technological tool introduced in the class has some impact on the learning of the students and the way a teacher teaches a lesson (Reedy, 2008).

Teachers are struggling to integrate technology specifically, Smart Board /IWB technologies, without additional support. The purpose of this study was to identify the challenges and barriers teachers face when trying to incorporate Smart Boards/ IWBs into the daily routines of teachings and to explore what skills and resources teachers need to incorporate Smart Board/IWBs in their classrooms. Teachers in the local district need to learn how to use the Smart Boards/IWBs effectively with students to enhance learning. Using the Smart Board/IWB technologies effectively in daily classroom activities will provide many students with hands-on learning, and as an added benefit, keep the students interested in the lessons. The on-going teacher professional development opportunities to enhance instruction will affect the lessons and will have an overall positive effect upon student learning.

Definitions

This section provides the definitions of terms used for purposes of this study.

Educational technology: Study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological process and resources (McManis & Gunnewig, 2012)

Professional development: Process of acquiring new knowledge and skills related to education (Carpenter & Sherretz, 2012).

Smart Board/IWB technology: A large interactive display that connects a computer and projector that shows images and videos and users interact with board using pen, finger, or other devices (Giles & Shaw, 2011).

Technology integration: Incorporating technology resources- and technology-based practices into daily routines and practices of the classroom (Singh, 2013)

Significance

The Smart Board/IWB technologies are required implementation tools used in the daily routines of the classroom. The Smart Boards/IWBs offer a flexibility in instruction and allows both teachers and students to interact with the media presented. Students have access to virtual manipulation by just touching the screen, which allows students the opportunity to explore the information on a large screen, not over a computer screen. Smart Board/IWB technology allows for more engagement by students.

Teachers are taking many after school classes/workshops/trainings on the uses of the Smart Board in the classrooms. The workshop structure does not allow teachers to

take advantage of the training and fully implement the technology into the classroom routines. If school systems invest in quality technologies, and expect teachers to implement it, teachers have to be empowered. Districts need to give teachers the tools and classes/workshops/trainings needed to use them. That way, the districts are not only making sure everyone knows how to use the technology, but are also building teachers' buy-in that is necessary to get full use of the technology. Effective trainings would allow teachers the flexibility to ask more questions and get further understanding of the Smart Board/IWB technologies.

Guiding/Research Questions

In this project study, I identified what additional support teachers need to integrate Smart Board/IWB technologies into instruction. I have provided documentation that teachers need more opportunities to develop their skills using Smart Board/IWB technologies. The overall design of my project study was a case study research. According to the data, teachers had not had enough professional development training using and incorporating the Smart Board/IWB technologies into their classroom activities. Teachers might need to have on-going, hands-on training with the Smart Board/IWB technologies. My plan was to use Research Questions 1 and 2 as the focus of my study and Research Question 3 as a driving force for my project at the end of my study. Additionally, Research Question 3 provided the data for me to create a support system for teachers to use while they incorporate Smart Board/IWB technologies into

their daily classroom activities. Based on the data, I proposed a professional development resource for teachers to use to help enhance their lessons.

1. What do teachers identify as the challenges related to the use of Smart Board/IWB technologies in daily classroom activities?

2. What barriers are preventing teachers from using the Smart Boards/IWBs to its fullest potential?

3. What support do teachers need to integrate Smart Board/IWB technologies into instruction in daily classroom activities?

Review of the Literature

In this subsection, I examine and summarize the research about technology-professional development and the use of Smart Boards/IWBs in the classroom. The literature review includes several major themes: a theoretical framework, professional development, cost implementation, and future trends. Libraries used included Walden Online Library, Southeastern Louisiana University Library and Online Library, Tangipahoa Parish Public Library and Online Library, and the Louisiana Library Connection. Database searches included *education, business and management, Thoreau, ProQuest, Academic Search Complete, communication, computer science, Industrial Technology, multi-discipline, Eric, Google Scholar, EBSCOhost, Gale Group.* Boolean search terms included *interactive whiteboard, smart board, and technology, technology professional development, and professional development, smart board in middle school*

classrooms, *technology integration*, and *educational technology*. In order to keep my search focused, the date range was set from 2007 to 2014.

Theoretical Framework

Literature about the adoption of technology within the K-12 classroom and the self-efficacy of teachers regarding technology and its adoption to their classroom instruction was the theoretical framework for this project study (Lewis, Somekh, & Steadman, 2008). The adoption of technology for classroom usage is an important ideal that teachers must follow district policies. Teachers have at least a basic training for the use of technology they have in the classroom. Teachers' self-efficacy is one of the foundations of using the Smart Boards in the classroom (Holden & Rada, 2011). Teacher beliefs in technology usage have an effect on lessons presented in the classroom. When teachers do not have confidence using the technology, they are not as likely to use that technology in a lesson. In addition, the overuse of the same technology can cause stagnation in the learners of the classroom (M. Ryan, personal communication, January 4, 2013).

The use of Smart Board technology in the classroom creates a place where learners are able to explore deep meaning of the objectives of the lesson. Jones, Kervin, and McIntosh (2011), suggested that the combination of the interactivity, combined with the practice of skills stimulates higher order thinking. Smart Boards add another dimension to the lessons in the classroom. The teachers must use this tool to help learners find meaning to the day's lessons in the classroom (M. Ryan, personal communication, August 5, 2011). Smart Boards are a meaningful addition to the lesson and have a

significant part in helping teachers explain lesson objectives (Jones et al., 2011). Smart Board technology facilitates the use of a variety of instructional strategies and encourages student exploration giving the learner a deeper understanding of the meanings within the lesson.

The interactivity of the Smart Boards allows for the gathering of media-rich material and they make it easily accessible to the teachers while teaching classroom lessons. Interactive lessons saved as files create a library of resources for teachers later (Mitchel, Hunter, & Mockler, 2011). Smart Boards add the interactive pieces of the lesson that creates additional meaning for the learner. Tapping into the various learning types of students enables the teacher to differentiate the learning for students. Smart Boards/IWBs can be used to connect the classroom to classrooms in the outside world (Mitchel et al., 2011; Winzenried et al., 2010). Using the Smart Boards to connect to other classrooms gives students different learning experiences with students. Smart Boards can be used as virtual field trips to allow students to visit places they may never experience in their lives. Using the virtual field trips students can visit faraway places, and the burdens of expenses to the schools are minimal. Classes can experience more than one teacher's perspective on a particular lesson using the virtual classroom connection.

One way to determine teacher efficacy is to use the scale created by Hoy (2008). In the Teacher Self-Efficacy Scale (TES), Hoy identified teachers' beliefs about the integration of technology in the classrooms. Teachers' beliefs about technology

integration play a role in the creation of classroom lessons. Teachers may only use a few types of technology in the classroom repeatedly, which bores the students. Hoy identified the different job skills within the teaching profession that relate to the implementation of Smart Boards/IWBs in the teaching activities of the lessons.

Professional Development

Inadequate Smart Board professional development leaves teachers with many more questions about incorporating the Smart Board in daily classroom activities (Lewis et al., 2008). At the local study site, teachers attend trainings for help using the Smart Boards/IWBs in daily classroom activities. Teachers have many more questions about the uses of the Smart Boards/IWBs after attending trainings (McCormack & Ross, 2010). The district focuses on providing Smart Boards/IWBs in all classrooms. However, placing the Smart Boards/IWBs in the classroom, and only providing minimal professional development to teachers, does not support to teachers (Jones & Vincent, 2010). While teachers begin experimenting with the Smart Boards in their classrooms, implementation of the Smart Board often adds confusion.

Teachers' efficacy and related job skills help creates the environment in which teachers interpret the lessons for the classroom. Teachers need to be aware of the other learners in the classroom (Maigo & Mei-yan, 2010). Teachers coordinate different aspects of the teaching profession within lessons so that students in the classroom can master the lesson objectives (Winzenried et al., 2010). Applying different trainings in the teaching profession allows the teachers to provide best practices in the classroom. Best

practices in teaching lead to an increase in student learning that is the center of instructional strategies. Knowing the strengths and weaknesses of the students in the classrooms allows a teacher to attend various students' strengths and weaknesses (Leah, 2010). Additionally, teachers should know their strengths and weaknesses and attend professional development training to help strengthen their weaknesses (Maigo & Mei-yan, 2010). Providing meaningful professional development will improve the lessons taught in the classroom

Teacher professional development plays a role in the classroom (Berger, 2014). Teacher professional development provides the needed information for teachers to connect strategies and learning opportunities for student learning in the classroom. Taylor, Yates, Meyers, and Kinsella (2011) stated that differentiated professional development for teachers would improve career development. Providing a differentiated professional development for teachers would prevent teachers from becoming stagnant or bored with the current teaching profession. Professional development training allows teachers opportunities for best practices with implementation of strategies in the classroom (Poekert, 2013). However, many teacher professional development opportunities are a "one size fits all" model. Differentiating professional development for teachers helps with implementation strategies in the classroom.

Cost of Implementation

There is a need for effective professional development using the Smart Board with daily classroom lesson. However, the cost of implementation for the Smart Boards

in all classrooms may prevent some schools from implementing this technology into the classroom. Much of the implementation of the technology will depend on the budget of the individual districts. It is only because of the reduction in price that schools incorporated the Smart Boards as a technology tool for the teacher (Preston & Mowbray, 2008). Robertson and Green (2012) stated that where stationary IWBs range from $1,000 to $2000 per classroom, a new and upcoming trend is a mobile IWB for about half the cost. This price is just for the IWB and no other equipment. Winzenried and Lee (2012) stated that a complete installation of a Smart Board with computer costs between $5000 and $8000 per classroom. Initial instruction from the company to the facilitator is inclusive. Even though this is a huge investment, the classroom provides engaging and exciting learning strategies for the enrichment of knowledge because of the media-based lessons.

The mobile Smart Board has the same capabilities as the bigger counterparts only with the ability to move from room to room. With this ability for mobilization, the Smart Board is not limited to one particular place. This mobile board is somewhat smaller, but allows teachers and students exploration in other ways not possible with the stationary boards (Robertson & Green, 2012). Teachers can take the mobile Smart Board into classrooms where a stationary board does not exist. Another thought for the use of the mobile board is to use it with small group instruction to help with the differentiated instruction.

With on-going budget cuts to education and the continuation of accountability for teachers, there is a need to improve the professional development opportunities for teachers using the Smart Board/IWB technologies to enhance the lessons in the classroom (Sawchuck, 2010). Professional development opportunities should focus on the needs of the teachers (Singh, 2013). Successful professional development occurs when teachers are satisfied with the learned material and then used as part of the teacher toolbox in the classroom. Educators should learn how to use the Smart Board technology because this technology is a useful learning tool. Smart Board technology gathers the material for the lesson for the teacher all in one place (Winzenried, & Lee, 2012). The Smart Board also include media-rich activities that students can enjoy either as a whole class, small group or individual instruction without the danger of losing self- esteem in the process.

The more technologies enter the classroom, teachers, administrators, and other staff must master the tool-specific strategies (Jacobs, 2010). All personnel need to have professional development in the best practices for each of the technologies the classroom. Teachers need time for experimentation with the technology tools and students for the best ways to use the technology in the classroom for the classes (M. Ryan, personal communication, January 4, 2011). Technologies are added to the teacher toolbox yearly but without an understanding of how this technology should be used in the classroom. The developments of tool-specific learning environments need extra time when planning lesson objectives (Sorensen, Shepard, & Range, 2013). Teachers need time for understanding the benefits of the technology to the classroom. Students also need to learn

how the technology connects to the lessons. In addition, students also need to understand how work the technology so that they can be successful in the classroom.

The stand-alone Smart Boards allows for easy navigation and functionality throughout the teaching of the class (Martin, Shaw, & Daughenbaugh, 2014). The stand-along Smart Board has to be a permanent fixture in the classroom. A designated computer is needed for the Smart Board to work properly. The computer that works the Smart Board need not be the same computer used for other applications. The IWB also allows for productive communication and thinking both on the part of the teacher as well as the student (Martin et al., 2014). Integrating Smart Board technology into the classroom can be a difficult task for the teacher (Blue & Tirotta, 2011). Teachers need an understanding of the working of all the tools provided in the Smart Board. Students want to control the Smart Board and enjoy the interactivity. Blue and Tirotta (2011) stated that pre-service teachers need extra preparation with technology because they have little or no experience with the Smart Board during their formal training. Pre-service teachers' workshop using Smart Boards covers just the basics. Many pre-service teachers still do not use the Smart Board to its fullest potential. The cost of the workshops that the pre-service teachers attend is absorbed by the districts, causing more problems with the budget. Underutilization of the Smart Board will indeed turn this expensive learning tool into an expensive play toy (Brigham, 2013).

Diversity

Smart Board technology offer a variety of strategies for teachers to engage diverse learners. Social and cultural context shape the diversity in learners (Solvie, 2013). With these diverse learners in the classroom, the preparation of lessons is crucial so that everyone can learn. The teacher prepares lessons that should consider as many of the diverse learners in the classroom. Creating lessons may be a challenge when trying to incorporate Smart Board technology with diverse learners in the classroom. Solvie (2013), states personal viewpoints help to make sense of the surroundings. Teachers need to be aware that their cultural identity can influence lesson dynamics. Students come from all cultural backgrounds, and it is the teachers' responsibility to instruct in a way that integrates each student's culture so that each can learn. Teachers need to be sensitive to the other learners in the classroom. Technology can be most resourceful to the preparation of culturally diverse lesson plans. Thompson (2013) stated that frequently using technology has a positive effect on the learner's outcomes. The use of technology in the lesson keeps the attention of the learners (Jacobs, 2010). Using the same technology, repeatedly, may not provide enough diversity in the lesson for all learners to find success in meeting the objectives (Jones et al., 2011). The repeated use of the same technology bores the students in the classroom (Martin et al., 2014). Students need to have a variety of strategies for learning to keep them motivated in the classroom (Bennett et al., 2008).

The benefit of developing diverse learners provides a vehicle for them to understand leadership (Virick & Greer, 2012). Leadership provides the learners with a head start to their future careers. In the working world, it is necessary for learners to be familiar with Smart Board technology. As students take on more leadership roles, they bring a different strategy in learning to the classroom. Teachers need an understanding of the long-term goals for their class. For some teachers this barrier may be keeping them from expanding their knowledge of the Smart Board technology. Greater diversity in the classroom reflects a greater inclusion of all learners in the group (Virick & Greer, 2012). Achieving success is one of the most important objectives. Teachers plan lessons by providing a variety of strategies for the learners to experience within the standards and objectives they plan to cover in a unit. Creating environments where all learners participate requires careful planning of all teacher tools to meet the lesson objectives.

Smart Boards can be a tool to assist the teacher providing different strategies to help learners understand the major point of the lesson (Andone, Dron, & Pemberton, 2009). For example, a teacher can create a Smart notebook file that incorporates media-rich material to diversify the lesson. Smart Board tools also provide different learning aspects for the class learners (Robertson, & Green, 2012). Some teachers may need additional support to create a Smart notebook file that incorporates a variety of technologies for the lesson. During lesson planning, teachers can input a variety of learning material based on culturally diverse lesson objectives to help the student master strands and standards according to their needs.

Teaching with Smart Board technology becomes an everyday occurrence, any inadequacies are apparent to the students (Poling & LoSchiavo, 2014). It may be necessary that teachers seek out additional support to recall the best practices for Smart Board usage. Rushby (2013) stated that the succession of technological advances in the past years have had many innovations, but only had a marginal impact on learning. According to Poling and LoSchiavo (2013), the new top innovations will lose favor in a few years, and technology advancements make it impossible to predict because of the pace on innovations. Smart Board usage in the classroom provides additional strategies to enhance the lessons. Rushby (2013) stated that the focus is too much on technology and not the learning. Smart Boards can help to keep all the focus on the lesson without switching back and forth between different technologies. Poling and LoSchiavo (2013) stated that it was up to the teachers to understand it is their responsibility to be technologically literate.

Future Trends

Now that the new age of technology is here, it is time for educators to adjust their teaching strategies to adapt for a new learning emerging (Holmes et. al., 2013). The onset of technology has opened a new avenue where there are no limits to the learning. Holmes et al. (2013) stated that the games based learning has a positive academic effect on the learner. Games allow risk taking without potential risk to the personal self. Games allow the user the opportunity to explore the learning with a new dimension. Game playing allows the learner to practice skills while having the instant gratification of playing a

game. Using the games-based approach method taps into the brain's rewards system for self-gratification when engaged by learners (Holmes et al., 2013). When the learner achieves higher levels in a game, the brain gives off a chemical that gives the learner a boost to continue playing. Integrating instruction with games creates an environment that offers challenging content without risking self-esteem. The learner can take a risk without any fear of retaliation or ridicule by classmates.

Teaching with games-based learning systems requires much more planning by teachers. Thompson (2013) stated that the administrators must have additional understanding that the games-based approach is yet another method to reach those students who require additional teaching strategies.

All media affects learners' abilities, preference for speed and multi-tasking (Thompson, 2013). Learners' curiosity is piqued when task that involves media is present. Many learners use a variety of different media on a daily basis. This usage of media daily has the benefit of allowing many users to acclimate themselves to using more than one device at a time. It is the possibility that these media-rich students learn differently from others just a few short year ago (Thompson, 2013). The ability of the new learners has increased because of the use of multi-tasking (Wood, Zivcakova, Gentile, Archer, DePasquale, & Nosko, 2012). Learners have adapted to increasing their learning potential because they can multi-task. Thompson (2013) stated that young people often embrace all forms of technology easily while older folks avoid it.

Technology is an important influence on students but is only one of many influences. The teacher must scaffold the learning with technology (Homes et al., 2013). This scaffolding leads students to many enhanced learning experiences. Students' involvement with the learning allows them the opportunity to remember the experiences throughout their academic career and even into their future lives (Thompson, 2013). A new generation of learners requires innovative lesson planning. Teachers must tap into the hidden value of technology for the learners.

The prediction of where technology will focus in the future is uncertain. Technology will still be part of the learning design. Maddux and Johnson (2011) stated that it was a difficult task to determine the future use of technology in any field. Taylor et al., (2011) stated that future education reform requires more consideration than just teacher expertise. The consideration needs to be addressed by the individual districts. Future successful implementation of professional development is attainable if there is enough cultural momentum (Maddux & Johnson, 2011). Teachers need to have more input to the individualized future training for their success.

Teaching Design

Using the Smart Boards/IWBs may lead to increased student motivation because of the increased interaction with the board and material presented (Tanner & Jones, 2007). However, according to Tanner and Jones (2007), the introduction of new technology does not change the instructional methods. The teacher must orchestrate the pieces of the lesson using technology to motivate the students in the learning process.

Students thrive on lessons that incorporate aspects of Smart Board technology (Tanner &

Jones, 2007).

Technology is a major component of the teaching process (Oigara & Wallace,

2012). Use of the interactive whiteboard has been linked to student achievement

(Sundberg, Spante, & Stenlund, 2012). The multi-sensory aspects of the Smart Boards

allow the students added exploration along with learning with each of the lessons in the

classroom. Teachers use the Smart Boards to enhance lessons so that students become

active learners in the classroom. Smart Board technology is not enough; changes in

professional development need to be in place for teacher to use the technology

effectively. The implementation process of the Smart Boards/IWBs needs changing. With

a much-needed change in implementation methods, the district should see a difference in

teacher implementation of the Smart Board/IWB technologies in classrooms across not

only the district, but in other parts of the nation. Additionally students' achievements

should increase because of the effectiveness of the Smart Boards/IWBs.

Teachers must adopt the technology available in their classroom lessons (Loke,

2013). Loke (2013) stated many years of inflated expectations of technology; usage in the

classroom has caused teachers to be wary of the technology. Teachers need to use the

critical eye when choosing the kind and type of technology used for lessons (Loke, 2013).

Students need to learn new literacies while making new meaning in multimodal ways.

Teachers should have a say in what technology to use with their lessons (Winzenried, &

Lee, 2012).

The teaching model has changed from students having a passive role in learning to active learning role that include critical thinking skills (Auerbach, 2012). The power of the computer and technology has grown tremendously (McCabe, & Meuter, 2011). Auerbach (2012) stated that learners internalize material when they are directly involved with the learning. Many of the young learners are immersed with technology; the learners are expecting to have technology as part of their learning (McCabe & Meuter, 2011). The students need to be engaged at a personal level with the material being learned (Auerback, 2012). McCabe and Meuter (2011) stated that the technology effect is linked to the structure of the lessons. The technology used for lesson enhancement must be linked to the structure of the purpose for teaching. Providing both together in a classroom of students will enhance the learning but will require changes in teacher profession development.

Summary of Literature Review

The current literature review for this section included several themes: theoretical framework, professional development, cost of implementation, diversity, future trends, and teaching design. Each theme provided evidence that teachers have challenges when trying to incorporate Smart Board technology into classroom lessons. Also founded were potential barriers keeping teachers from using the Smart Board to its fullest potential. The literature review suggested that the supports given to the teachers in the form of professional development did not help teachers integrate the use of the Smart Board into

daily activates in the classroom. Inadequate professional development with Smart Boards leaves teacher with many perplexing problems.

Adoption of technology standards in the classroom provides a foundation for implementation. In addition, teachers' self-efficacy provides a means for usage of technology in the classroom. Smart Boards implementation helps teachers when attempting to explore lesson objectives (Jones et al., 2011). Teachers' belief in technology usage for classroom instruction determines the technology used and the extent of the usage.

District funding for equipping all classroom with Smart Boards takes a substantial amount of the budget. The benefits of Smart Board to the teacher toolbox can be a great asset. Teachers have to have adequate training in order for the Smart Board to become a useful tool. Providing the necessary training for teacher also has a financial burden on the district. The teachers need access to a variety of training for Smarts Board in order to have an increase in the Smart Board usage.

The classrooms have a cultural diverse group of learners. Teacher provides a balance of cultural diversity in lesson with the use of the Smart Board. An effective teacher provides a balance of technologies creating a different aspect of the lesson. The impact of the diversity of the Smart Board has had a marginal growth because of the lack of training for teachers.

Emerging tools for Smart Boards gives teachers an advantage to adapt lessons fro they classrooms. Smart Board can be the vehicle learners manipulate idea and topics

diffing deep within lesson objectives and strands. Innovative learning taps into the hidden value of the technology usefulness. Teacher must be adept when incorporating Smart Board into classroom lessons.

This study revealed the inadequate professional development already in place for Smart Board Technology at the local level. Smart Board technology has been associated with significantly increasing students' mastery of lessons (Jones, et al., 2013). Teachers can keep the attention of students' during a lesson. Benefits of using the Smart Board outweigh the cost of installation (Sorensen et al., 2013). The wide variety of media-rich sources allows teachers to reach all students. Teachers can use a variety of sources to incorporate diversity throughout the lesson (Thompson, 2013). The future of technology is uncertain but what is certain, Smart Board in the classroom is a teaching tool that is here to stay. Adopting the Smart Board technology into classroom lessons provides both teacher and students' a multi-tasking process for all learners.

The literature review sought to find possible solutions to the research questions of this project study. Effective professional development in regards to Smart Board technology supports the teachers in the classroom where challenges and barriers prevent the implementation of the Smart Boards to the fullest potential. Allowing teachers to explore future trends and teaching designs in Smart Board technology creates a support network for teachers for the implementation of Smart Boards in the daily classroom activities.

Implications

The findings of my study on Smart Board implementation led me to a better understanding of the strengths and weaknesses of the current professional development trainings. The results of this project study indicated that professional development has the potential to provide teachers with the knowledge and skills needed integrating Smart Board technology in daily classroom lessons. The professional development must be teacher-driven to provide the necessary support for proper implementation. The proposed outcome a professional learning community will allow teachers to gain new knowledge and skills for Smart Board usage and would use this to improve teaching and learning.

Many teachers use IWBs to complete electronic worksheets or show examples of problems (Linder, 2012). Teachers must alter their focus or tasks to promote active learning (Linder, 2012). Linder (2012) also stated that students can manipulate ideas on the IWB and able to understand more complex topics. One of the best uses of the IWB is before and after small group tasks (Linder, 2012). Another use for the Smart Board is for the introduction of a topic or stimulation of discussion or makes a connection to the real world situations (Linder, 2012).

Digital integration of technologies is one way to facilitate the learning process (Ifenthaler, & Schweinbenz, 2013). The Smart Board offers versatile technology with multiple applications (Holland, 2014). Ifenthaler and Schweinbenz (2013) stated learners could use the multiple modalities to construct knowledge. Leaders need to consider all form of technology as a method of helping students in the classroom (Sorensen et al.,

2013). Holland (2014) suggested that the power of the lesson has to shift from the teacher to the students. Smart Board benefits range from availability of many tools to adding multi-media into the lessons (Ifenthaler, & Schweinbenz, 2013). The Smart Board also offers interactivity within lesson and can provide instant feedback.

Findings of this research indicated that teachers lack the professional development growth opportunities related to the boredom and retention of teachers to the profession. Teachers are a diverse group. New ideas in professional development are needed to keep teachers in the classrooms. Different phases of professional development are needed to support the different states of the teaching career. Additional professional development should reflect the major educational reform-taking place. The current trend of professional development focuses on ensuring schools creates cultural diversity to the indigenous learners. The professional development is merely a discussion of the effectiveness of the approaches and for updating teachers beyond pre-service educational programs, not for the impact on teaching profession or teachers' careers.

At the local level, this project study investigated the challenges and barriers teachers face when attempting to implement Smart Board technology in daily classroom activities. Many of the same problems found locally are also experienced globally. The proposed project allows teachers the opportunity share their gained knowledge and learn new skills for Smart Board usage in classroom lessons.

Summary

Teachers at Berry Middle School have Smart Board/IWB technologies in their classrooms, but many of these educators do not make good use of this instructional technology in a way that enhances teaching and learning. Smart Board training lacks the component of connecting teaching and learning using the technology. Teachers need support with effective Smart Board usage. Budget cuts to education make technology professional development difficult to provide adequate training using the Smart Board. School system needs to empower teachers by providing quality technology professional development using Smart Boards.

The literature revealed several themes influencing the implementation of Smart Board technology in a classrooms lesson. The cost of implementation theme creates problems for districts. Smart Board equipment installation cost along with training for teacher demands much of the budget of the districts. The next theme, diversity, shapes the context of the lesson. The teachers' creation of activities enables deep coverage of the learning objective relies on the use of the Smart Board technology. Future trends, another theme, provide a look into the future of how technology will adjust teaching strategies for learners in the classroom. Teachers provide new innovative lessons using the Smart Board that motivate students in the classroom. The teaching design theme shows the increase of student participation in a lesson using the Smart Board. The dynamics of lesson creating using Smart Board requires teachers to use a variety of strategies writing lessons.

Effective Smart Board professional development should include on-going, hands-on activities for teachers, on-going support, and skill building. This project study sought to identify the challenges, and barriers teachers have relating to the implementation of the Smart Board into classroom lessons. In addition, what supports teachers need to implement the Smart Board into classroom activities. The current situation of technology professional development requires a variety of strategies to meet the needs of the teachers. Providing teacher-driven technology professional development improves best practices when incorporating the Smart Board in lesson.

In the next section, the focused of the research questions that ask teacher what challenges, barriers prevent the integration of the Smart Board in classroom lessons. Additionally, section 2 also focused on the supports teachers need to integrate Smart Board into classroom instruction.

Section 2: The Methodology

Introduction

The purpose of this study was to identify the challenges and barriers teachers face when trying to incorporate Smart Boards/ IWBs into the daily routine of teaching and to explore what skills and resources teachers needed to incorporate Smart Board/IWBs in their classrooms. In order to understand teachers' attitudes toward incorporating Smart Board/IWBs in lessons, I used a mixed method case study approach (Creswell, 2012). According to Creswell (2008), this design allows the researcher to collect, analyze, and mix quantitative and qualitative methods in one study. My goal in this project study was to discover what keeps teachers from using the Smart Boards/IWBs to their fullest potential based on best practices. The main objective for the quantitative portion of the project study was to identify teachers' challenges related to the use of Smart Board/IWB technology in daily classroom activities. In the qualitative portion of the project study, I focused on what barriers were preventing teachers from using the interactive whiteboards to their fullest potential. Additionally, in the qualitative portion of this project, I sought to discover what added support teachers needed to expand lesson ideas. Using the mixed-methods case study approach provided a better understanding of the research questions. The use of both qualitative and quantitative data allowed a better picture of the project study to unfold (Creswell, 2012).

The guiding questions for this study were the following:

1. What do teachers identify as the challenges related to the use of Smart Board/IWBs?

2. What barriers are preventing teachers from using the Smart Board/IWBs to their fullest potential in the daily classroom activities?

3. What support teachers need to integrate Smart Board/IWB technologies into daily classroom activities?

This mixed-methods case study entailed a triangulation of data sources in the form of surveys, interviews, and document analysis concurrently. The theoretical framework for this project study was the root of teacher efficacy as one segment of evidence for finding out teachers' beliefs. The theoretical framework also the basis of supposition to the integration of technology in their classroom as well as the adoption of technology within the school's climate. The surveys were used to determine different job skills within the teaching profession, which I grouped into four major areas: (a) job accomplishment; (b) skill development on the job; (c) social interaction with students, parents, and colleagues' and (d) coping with job stress.

Setting and Sample

This case study research included eight teachers who identified some of the challenges related to the use of Smart Board/IWB technology in daily classroom activities. The participants in this study was a diverse group of teachers. First-year teachers, teachers with at least 4 years of teaching experience, and teachers with more than 5 years of teaching experience were the groupings of the participants. First-year

teachers included two participants. Teachers with less than 4 years of experience included three participants; teachers with over 5 years of experience included three participants. Participants for this project study was teachers employed at Berry Middle School.

Setting

The campus consisted of 776 students (35 fourth graders, 345 fifth graders, 376 sixth graders, and 20 seventh graders; WebPams Gradebook, 2013). The ethnic breakdowns for the students included 515 White, 245 Black, 10 Hispanic, five Asian, and one Native American/ Alaskan Native (WebPams Gradebook, 2013). The current school performance score is 91.8. The school performance scores are used as a measure to calculate the growth needed for adequate yearly progress under the No Child Left Behind Act (2001, 2002). The school performance scores indicate how well students performed on the state's high stakes standardized tests. The stakeholders and media use the statistical package for the social sciences (SPS) as an accurate and complete measure of school or district performance. The administrative team consists of one principal, one assistant principal, an administrative assistant, and two secretaries. All classrooms have Smart Boards/IWBs in place, and all faculty members have attended the initial training on the use of the Smart Boards/IWBs. Additional trainings are available throughout the district and are available to all teachers in the district. These trainings, as well as other professional development trainings, are available through the technology department. A schedule of trainings is available in the professional development portal for the district.

Sample

In this project study, I used a convenience sampling technique to identify teachers and administrators willing to participate in this study. The district's administration (superintendent, assistant superintendent, and chief academic officer) signed the permission to conduct research forms adapted from the institutional review board (IRB) resources (Appendix B). Additionally, I brought the forms to the principal for her signature (Appendix C). To attract participants for this project study, I spoke to each of the faculty members one-on-one, explaining my project study and the need for their help and support. This procedure helped me secure eight teachers who participated (Appendix D). I surveyed eight teachers. I interviewed eight teachers; some were the same as those who participated in the survey. The instruments I used to collect data included Teacher Efficacy, Teacher Confidence Scale, and the Teacher Sense of Efficacy Scale (long form; Hoy, 2008).

Quantitative Data Collection Procedures

In the quantitative portion of the study, I focused on the strategies that teachers used in the classroom. The first survey the teachers completed was the TES (Hoy, 2008; Appendix G). This scale included lists of teaching skills including classroom management, evaluating student work, and building learning. The survey asked teachers to rate each skill on a 6-point scale of how confident they feel with each skill: the higher the score, the more confident the responder. This scale measured three factors:

1. Confidence to teach mathematics and science

2.   Confidence to use instructional innovations

3.   Confidence to manage classrooms (Hoy, 2008)

I used Survey Monkey's online website to collect the data. I gave the teachers the website address and special login information to access this survey. The raw data were stored at www.surveymonkey.com; I have an account at the website, and it is password-protected. This is a copyrighted survey. I received permission to use the survey (Appendix E, F). A free copy of the survey is available at the following address: http://people.ehe.osu.edu/ahoy/files/2009/02/osu-confidence-2000.pdf.

The next survey the teachers completed was the TES (Hoy, 2008; Appendix H). This survey has 30 questions. The survey's premise was based on Bandura's (1977) idea that a person's self-efficacy may change from task to task. This questionnaire has seven subscales:

1.   Efficacy to influence decision making

2.   Efficacy to influence school resources

3.   Instructional efficacy

4.   Disciplinary efficacy

5.   Efficacy to enlist parental involvement

6.   Efficacy to enlist community involvement

7.   Efficacy to create a positive school environment

Teachers answered each item using a 9-point scale. All items center on the two dimensions of self-efficacy and the outcome expectation of the teacher for each of their

activities. I used Survey Monkey's online website to collect the data. I gave the teachers

the website address and special login information to access this survey. This survey is

copyrighted. I received permission to use the survey (Appendix E, F). A free copy of the

survey available at the following address:

http://people.ehe.osu.edu/ahoy/files/2009/02/tes22.pdf.

Finally, the teachers completed TSES (Hoy, 2008; Appendix I). Tschannen-

Moran and Wooldolk Hoy (2001) identified three factors in teacher efficacy when

developing this scale:

1.   Efficacy in student engagement

2.   Efficacy in instructional practices

3.   Efficacy in classroom management

This survey is copyrighted. I received permission to use the survey (Appendix E,

F). A free copy of the survey available at the following address:

http://people.ehe.osu.edu/ahoy/files/2009/02/tses.pdf.

Qualitative Data Collection Procedures

I conducted a pilot test of the interview questions (Appendix J). This process

allowed me the opportunity to see if the questions would answer my research.

Additionally through the pilot, I learned more about the translation process and the

amount of data that was collected. The pilot interview consisted of open- ended questions

intended to encourage meaningful answers to the questions about Smart Board usage in

the classroom. After the pilot test, I was quite satisfied with the answers given by the participant.

For the project study, I conducted the open-ended interview with all of the participants in order to listen to their unique points of view and to examine teaching strategies from their unique perspective. I used an Olympus VN-5200PC recorded the interviews. After each interview, I transcribed the digital recordings in order to categorize information into a coding scheme (Yin, 2014). An inductive, iterative process of reading and rereading the transcript produced subcategories for information analysis within the overall research question (Hancock, & Algozzine, 2011). Statements became units, grouped into common category headings then analyzed, and summarized. Testing subcategories established plausibility. In this way, common codes denoted and differentiated between participant's notes (Yin, 2014). Establishing information and analysis credibility involved:

1. Implementation inter-rater reliability coding checks,

2. Uncovering biases that might skew the researcher's perspective, and

3. Comparing obtained outcomes to previously published research findings (Creswell, 2012)

All information gathered separated into categories by design. A cross check of all findings was reviewed for common threads to establish validity and reliability.

Next, an analysis helped decipher common themes related to this project study. Additionally, this process provided insight to the needs of teachers for extra supports needed to implement the Smart Boards/IWBs in classroom lessons.

Human Participants

In order to protect the research participants, I obtained written informed consent (Appendix D) from all participants. Each participant gave his or her consent freely and voluntarily. In addition, those participating could have withdrawn at any time, for any reason without consequence. At the conclusion of this project study, all findings will be shared.

I met with the Parish Superintendent, the Assistant Superintendent, and the Chief Academic officer. At that time, all permission forms were signed (Appendix B) in order to meet the requirements of the Walden University IRB. In addition, a meeting with the school's principal took place to have all forms signed (Appendix C) in order to meet the requirements of the Walden University IRB. After obtaining all the proper permissions and IRB approval, participant invitations took place. Participants chose their level of participation in this process. Acceptance of an offer to participate included signing a consent form, complete survey(ies) and interview. A copy of signed agreements will be on file for five years. By ensuring that any information gathered did not contain any form of identifiable information protects participant confidentiality. I stored all the data collected in a secure locked cabinet, and I am the only person who has the key. I stored all the electronic files on my personal, password-protected computer and for added

security; I created a separate folder that requires a security password to access the data. Once I complete my research paper, I will back the data onto a portable drive I purchased just for this project. Once I complete my research I will back all my files on the drive and store it in a secure locked box at my home, and I will wipe the drive on the computer; thus providing further security.

Justification

This project study focused on the challenges and barriers that teachers have in integrating Smart Board/IWB technology into their classroom instruction, as well as the need of adding additional support for those problems. A mixed methods case study investigated the research questions in this project study. The use of both qualitative and quantitative data collection allowed data to be easily attainable as well as have a reasonable cost and effort. The analysis process clearly identified a problem does exist with Smart Board/IWBs at Berry Middle School. The results are clear and comprehensible. This research project extends the knowledge by having a better understanding of using the Smart Board/IWB, as well as providing a venue for the creation of added support for teachers to continue integrating that technology further into their lessons. The social implications call for ongoing professional development in regards to the effective use of Smart Boards/IWBs in the lesson activities. The proposed project leads to the development of a project that entails a series of additional resources for teacher. These resources consist of material and tools in the form of professional development.

Data Collection

I obtained written permission from the Superintendent, the Assistant Superintendent, and the Chief Academic Officer of the District to conduct research in the parish (Appendix B). Additionally, I obtained permission from the principal of the school to conduct research at the school (Appendix C). I also obtained permission to use the three survey instruments (Appendix E and F). Lastly, I applied to Walden University's Institutional Review Board (IRB) and received approval (IRB # 01-14-14-0189060) to conduct the research.

The survey instruments (*Teacher Self-Efficacy,* the *Teaching Confidence* (Hoy, 2008)*,* and the *Teacher's Sense of Efficacy Scales* (Hoy, 2008)), provided the insight of teaching efficacy toward technology. I used Survey Monkey to collect the data from the survey instruments. I controlled access to the surveys by providing survey links to participants. Each participant understood his or her part in this process (Appendix D).

The individual teacher interviews were an undertaking. For each of the interviews, time was scheduled, and for many unforeseen reasons, that time for almost every participant had to be changed. One participant rescheduled six times. Those interviewed provided positive feedback. Smart Board technology, on the other hand, received criticisms on the basis that it was a unanimously unfavorable form of technology.

Creswell (2012) suggested that mixed methods concurrently involved in the analysis and comparison of themes or factors from both quantitative and qualitative data.

A pilot study of the interview questions was completed. This pilot study protocol added validity of the interview portion of the qualitative portion of this study. Collection of data involved a concurrently gathering data from the participants incorporating, *Teacher Self-Efficacy* (Hoy, 2008), the *Teaching Confidence* (Hoy, 2008) and the *Teacher's Sense of Efficacy Scales* (Hoy, 2008) questions in addition, teacher interviews. This data provided an array of information answering the study research questions, creating a proposed project outcome for further professional development to improve teaching and learning with Smart Boards/IWBs in middle school classrooms.

Data Analysis

This research project study is a mixed-methods case study. The data collected concurrently and then analyzed using a triangulation strategy. A pilot study protocol added validity of the interview portion of the qualitative portion of this study. Details of this pilot protocol are explained in a subsequent sub-section. Additionally, I also used member checking to allow the participants to add any information for clarity to the interview process. The *Teacher Self-Efficacy* (Hoy, 2008)*,* the *Teaching Confidence* (Hoy, 2008)*,* and the *Teacher's Sense of Efficacy Scales* (Hoy, 2008) were the instruments I used to collect information for the quantitative portion of this project study. All survey instruments were already created and tested for validity and reliability.

Coding and analyzing of data found common themes and patterns. Yin (2014) stated that coding is a method of understanding the data and putting meaning to the data. The coding process became a task of separating all of the questions with answers into

several stacks. This method allowed themes to emerge for each of the interview questions. Color-coding the data for repeated words and phrases created an easy way of quickly identifying those themes.

Pilot Study

In the interview protocol, I conducted a pilot study of the interview questions. The pilot study began mid-January 2014 after Walden University's IRB approval. The purpose of the pilot study was to ensure the open-ended questions are sound as well as to gather information prior to the larger study. I did this to improve the quality of the questions.

The pilot study ensured the interview protocol was effective and efficient. The questions provided were open-ended. Participant's answer contributed to a more developed idea. For this pilot study, one teacher was chosen to participate. That teacher was a volunteer who wanted to participate in the project study. After the interview session was complete, the only changes made was an adjustment of the time allowed for teachers to respond to the questions.

The outcome of the pilot study concluded that the pilot study participant in the local setting was having problems when implementing the Smart Board into their classroom instruction. Additionally the participant also stated that additional professional development was needed in regards to the implementation of the Smart Board in the classroom.

Qualitative Data Analysis

All participants agreed to have their interviews audio recorded. The interview questions used were open-ended questions. After all the interviews, transcription from audio recordings occurred. After each transcription, the participant provided additional comments for the transcribed interview. This member checking process allowed the participants the opportunity to verify my interpretation of the interview and if the data was, correct. The member checking process resulted in additional information added by the participants. The process of member checking enhanced the validity of the study. Member checking is a valuable strategy for ensuring qualitative validity and involved asking participants to verify that the researcher's interpretation of the data was correct (Creswell, 2012).

Common themes and patterns appeared after multiple reviews of the interview data. Yin (2014) suggested that coding is a method of understanding or putting meaning to the data. The coding process for this project took a few steps. First, all questions were separated. Then a sorting of the questions took place. The next step, underlining key words and phrases took place for each of the questions.

Quantitative Data Analysis

The aim of quantitative research is to explain phenomena by collecting numerical data that will be analyzed using mathematical approaches (Yin, 2014). I used already created surveys instruments, which allowed me the opportunity to study these phenomena

numerically. Quantitative methods are good at providing information in breadth (Yin, 2014).

All data was collected concurrently. I used the computer program IBM SPSS Statistics 21 to analyze the raw data collected by completing a factor analysis. A factor analysis provided the basis for analyzing relationships among variables (Green & Sailkind, 2011).

Factor Analysis

The factor analysis attempts to explain the patterns of correlation with a set of variables (Green & Saikind, 2011). Green and Saikind (2012) also explained factor analysis attempts to identify factors that statistically explain variance and covariance among measures. The factor analysis usually proceeds in two stages. The first stage consists of sets or loadings. The factor loadings are the correlation coefficient between the variable and factors (Green & Saikind, 2011). Once calculated, the loadings yield theoretical variances, and covariances are observations as closely as possible to the criterion. In the second stage, the first loadings were rotated in an effort to arrive at another set of loadings that fit equally with observed variances and covariance (Green & Saikind, 2011).

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Findings

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In the qualitative portion of this study, three major themes emerged.

1. Technical difficulties challenged the teachers

2. The lack of professional development using the Smart Board

3. Finding/creating enough grade-specific content resources for the Smart

   Board

In the quantitative portion, two major findings emerged. The first major finding was that teachers were well aware of the issues related to the implementation of Smart Board. The second major finding was evidence of the need for additional professional development related to integrating this educational technology into teaching and learning. Data analysis identified the following major challenges for teachers using this technology:

1. Technical difficulties;

2. Lack of sufficient professional development opportunities; and

3. The lack of access to resources for specific content at specific grade levels.

The qualitative findings suggested that teachers have difficulties with the use of Smart Boards in the classrooms. The findings also suggested the help should be in the form of professional development. This professional development has to be in the form of usage of the Smart Board and to include finding/creating grade-specific content.

Qualitative Results

The data from the participant interviews and triangulation of evidence revealed that teachers have concerns when trying to incorporate the Smart Board into their lessons. The teachers also have major challenges and barriers when incorporating the Smart Boards/IWBs into their lessons. Teachers' were able to identify some of the challenges related to the use of Smart Boards/IWBs in the classroom. In addition, teachers were able

to identify support systems that will help them to integrate Smart Boards/IWBs into their lessons.

After each interview, I transcribed the information from the audio recording. Then I printed each interview and marked it for occurring patterns. After I gave that copy to the participant, so they can check the accuracy of the interview. I did this for each of the eight participants. Member checking enhanced the validity of the study (Yin, 2014). Member checking is a valuable strategy for ensuring qualitative validity and involved asking participant to verify that the researcher's interpretations of the data were correct (Creswell, 2012).

Teacher Identified Challenges

The first guiding research question for this study was "What do teachers identify as the challenges related to the use of Smart Board/IWB technology in daily classroom?" During the interview, I asked several questions to probe about the major issues that may create barriers to using this technological tool for effective teaching and learning. As with all technology, numerous things can cause problems with attempting to use this technology in the lessons. The overall majority of teachers interviewed were able to voice challenges that keep them from using the Smart Board/IWB.

The interview data analysis for this research shows the major challenges using the Smart Board/IWB in the daily classroom activities. These challenges include (a) technical difficulties (b) lack of sufficient professional development for the use of the Smart Board/IWB and (c) finding enough grade-specific content resources.

Adam (pseudonym) said, "The problem is when you run into technical difficulties." Continuing into the interview Adam also stated, "For those problems I have no control, either the school system is going to fix those problems are they are not, until then I have to have another plan." Adam went on to say, "There is not enough."

Chris (pseudonym) stated, "Only problem I've seen is if the website is down or the computer doesn't accept the software." As the interview continued, Chris also said, "A frustration I have is when the Smart Board doesn't work or acts quirky, like the pens will not write."

Sonja (pseudonym) stated, "Even though I have had lots of professional development training I still do not fully understand how to use the Smart Board fully." Ava (pseudonym) said, "More in-depth workshops are needed to help me implement the Smart Board." Chris also said, "I would attend more professional development training if the workshops were held at times that would allow me the opportunity to attend."

Lois (pseudonym) said, "I remember working on a notebook file at home and then it didn't work right at school."

Barriers

As the interviews progressed with the participant teachers, it became apparent that they are bothered with several factors that kept them from using the Smart Board/IWB.

Joy (pseudonym) said, "Time, flat out time is a problem." George (pseudonym) also stated, "It is the knowledge of what the board is capable of doing that is a barrier for me."

Sonja went on to elaborate, "I think time as far as barriers because I have 27 kids in here. If one or two are up there, I still have 25 not doing anything on the Smart Board. I haven't figured out how to make it a small group thing without it affecting the rest of the class."

Needed Supports

When implementing any technology in the classroom, support is a necessity. Technology is always improving or changing. The support needs to be in place for the successful implementation process to be complete.

Sonja said, "Even though I have gone to those classes, and I liked them and I know how to use the board, I think that we need more professional development to support teachers." Caryn stated, "More workshops are needed for creating Smart Board activities."

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Quantitative Results

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The data from the participant surveys revealed (a) teachers identified problems using the Smart Board and (b) the need for professional development. I transferred the quantitative data from Survey Monkey's online storage to complete the factor analysis. Scale ranges for the *Teachers' Sense of Efficacy Scale* (Hoy, 2008) were from one-nothing to nine- a great deal. Scales ranges for the *Teacher Confidence Scale* (Hoy, 2008) were from one-Strongly disagree to six- strongly agree. Scales ranges for the *Teacher Efficacy Scale* (Hoy, 2008) *were* from one-Strongly disagree to six- strongly agree.

The *Teachers' Sense of Efficacy Scale* (Hoy, 2008) defined teacher efficacy as the judgment of the capacity to bring about desired outcomes of student engagement and learning. This survey divided the questions into themes of instructional strategies, student engagement, and classroom management. In the first theme, instructional strategies, those survey questions yielded the average mean score of seven and the average median of seven (Table 1).

Table 1

Instructional Strategies Questions from The Teacher Efficacy Survey (Hoy, 2008)

Questions	Mean	Median	St Dev
How well can you respond to difficult question for your students?	7.63	7.50	1.06
How much can you gage student comprehension of what you have taught?	7.63	7.00	.916
To what extent can you craft good questions for your students?	7.13	7.00	1.24
How much can you do to adjust your lessons to the proper level for individual students?	6.88	7.00	1.12
How much can you use a variety of assessments strategies?	7.38	7.00	1.18
To what extend can you provide an alternative explanation or example when students are confused?	7.88	7.50	.991
How well can you implement alternative strategies in your classrooms?	6.88	7.00	1.24
How well can you provide appropriate challenges for very capable students	6.88	7.00	.641

Note. Questions pertaining to instructional strategies were taken from the Teacher Efficacy Survey (A. Hoy, 2008). A free copy of the survey available at the following address: http://people.ehe.osu.edu/ahoy/files/2009/02/tes22.pdf

The table results suggested that teachers had *quite a bit* of influence on the instructional strategies that take place in their classrooms. The second theme in the *Teachers Sense of Efficacy Scale* (Hoy, 2008) relates to student engagement. According to the data, teachers surveyed believed they have little more that "some influence" on engaging students in the lessons (Table 2). This group of questions also denotes the ability to control students' behavior and the ability to help improve those students who need extra help.

Table 2

Student Engagement Questions from The Teacher Efficacy Survey (Hoy, 2008)

Questions	Mean	Median	St Dev
How much can you do to get through to the most difficult students?	6.50	6.50	1.15
How much can you do to help your students think critically	7.13	7.00	.835
How much can you do to motivate students who show low interest in schoolwork?	6.25	6.00	1.28
How much can you do to get the students to believe they can do well in schoolwork?	7.50	7.00	1.44
How much can you do to help your student's value learning?	7.25	7.00	.886
How much can you do to foster student's creativity?	7.38	7.00	1.18
How much can you do to improve the understanding of a student who is failing?	6.50	6.50	1.3
How much can you assist families in helping their children do well in school?	7.0	7.00	.926

Note. Questions pertaining to student engagement were taken from the Teacher Efficacy Survey (A. Hoy, 2008). A free copy of the survey available at the following address: http://people.ehe.osu.edu/ahoy/files/2009/02/tes22.pdf

The last set of questions in the *Teachers' Sense of Efficacy Scale* (Hoy, 2008), relates to classroom management. These questions refer to how well teachers believe they

influence and respond to disrespectful students and handle defiance in the classroom

(Table 3).

Table 3

Classroom Management Questions from The Teacher Efficacy Survey (Hoy, 2008)

Questions	Mean	Median	St Dev
How much can you do to control disruptive behavior in the classroom	7.38	7.00	1.18
To what extent can you make your expectations clear about student behavior?	8.63	9.00	.74
How well can you establish routines to keep activities running smoothly?	7.88	8.00	1.12
How much can you do to get children to follow classroom rules?	7.88	7.50	.991
How much can you do to calm a student who is disruptive or noisy	6.75	7.00	1.38
How well can you establish a classroom management system with each group of students?	7.88	8.50	1.35
How well can you keep a few problem students from ruining an entire lesson?	7.25	7.00	1.03
How well can you respond to defiant student?	6.75	7.00	1.38

Note. Questions pertaining to classroom management were taken from the Teacher Efficacy Survey (A. Hoy, 2008). A free copy of the survey available at the following address: http://people.ehe.osu.edu/ahoy/files/2009/02/tes22.pdf

The results of the *TSES* show that the average score for all questions was seven. This result corresponds to the answer between *some influence* and *quite a bit of influence* on the scale. In other words, teachers feel that they have a little more than *some influence* in bringing about desired outcomes in the classroom while still not reaching the maximum learning potential.

The *Teacher Confidence Scale* (Hoy, 2008) measures the self-esteem of the individual. The average score for the confidence level was a five. Teachers feel they moderately agree they can provide successful learning experiences in the classroom while

still not reaching the highest level of confidence in securing resources for optimal student learning.

The *Teacher's Efficacy Scale* (Hoy, 2008) measures the extent an individual can organize and bring about desired outcomes. Teachers average a score of four on this survey, which means they agree slightly more than disagree that their influences enact change in the classroom.

Looking at the bigger picture, teacher average a score of five on all of the questions from the surveys combined. The score suggests that overall, teachers take responsibility for the content they present to students, but also know that there is room for improvement or professional development.

Summary of Results

In this project study, I used both qualitative and quantitative methods to gain insight into the research questions that guided this case study. The purpose of this study was to identify the challenges and barriers teachers face with trying to incorporate Smart Board/IWB into the daily routines of teaching. The findings indicated three major problems teachers faced when trying to incorporate Smart Board technology in the classroom. The data gathered from the eight interviews, as well as the data from the surveys, represents the practices, feelings, and beliefs of the teachers who use the Smart Board in their classrooms. I reviewed the data gained in this process and found common patterns and themes that connected to the research questions.

This doctoral study focused on the challenges and barriers teachers face when trying to integrate Smart Board technology, as well as the supports needed to enhance teaching and learning in the classroom. The data collected from the interviews, and the member checking confirmed that all participants have difficulties with trying to incorporate Smart Board technology in the classroom. The findings also showed that there is a lack of sufficient professional development for integrating Smart Board technology in the classroom. Additionally, teachers also noted that there is a lack of resources for Smart Board integration in specific grade-level subject areas. One teacher, Frankie, stated that "more professional development specific to the Smart Board." He also stated, "[He] want a resource with easy access at any time." Survey results indicated that there are problems with implementing Smart Boards in the classroom exists. Surveys also indicated the need for a specific professional development about the Smart Board implementation to enhance teaching and learning. Providing professional development resources that teachers' value, as well as, have these resources available can benefit all the involved stakeholders.

Conclusion

The overall findings of this project study was enlightening. Participants in this study have attended many Smart Board trainings/workshops in addition to the initial training. Some attended the same workshop as many as four times to gain an understanding of the material covered. According to this research study, five out of eight participants had continuing difficulties while using the Smart Board. These findings from

this local site indicate that there is still a need for additional professional development in relation to Smart Board implementation. The results from this project study invited the creation of a professional learning community in regards to Smart Board integration.

This professional learning community will provide learning opportunities that will facilitate and increase the effective use of Smart Boards/IWBs in daily classroom activities. Although my project focuses on the local school district problems, I expect that the resources will also be of value to the global educational community. My hope is that positive social change through perpetual professional development will most-likely lead to more students' engagement in classroom activities leading to increased effectiveness of teaching and learning activities.

I included information about the methodology, analysis, and conclusions in this section. In addition, I concluded this section with a discussion about a plausible solution to the problem of integrating Smart Board technology in the daily routines of the classroom. Section 3 will contain the details of the proposed project as well as the rationale for selection this project. Included will be a review of current literature that provides support for the project genre. The next section will also include a detailed discussion of the project the implementation as well as the project evaluation strategy.

Section 3: The Project

Introduction

The outcome of this project study was a professional development workshop to provide the best practices for lesson planning and teaching when using the Smart Board/IWBs (Appendix A). I will begin Section 3 with a brief description of the project, which is a professional development workshop that will lead to professional learning communities (PLC). In addition, I will continue the section with a discussion of the goals and the rationale for the PLC. This section also contains a review of the current publications related to the results of the data collected. A review of current literature provided the background for the professional development project. Lastly, included is a detailed description of the proposed PLC, on-going updates, and its influence on teachers.

Description and Goals

The proposed PLC for Smart Boards/IWBs developed from the problem that exists at Berry Middle School. Currently, the Southern Gulf Coast States spent millions of dollars implementing Smart Board/IWB equipment into classrooms, while not providing adequate support for teachers using the technology (Higgins, et al.). The PLC follow-up and additional resources for teachers to integrate the best practices of Smart Board/IWB technology in daily lesson activities is a logical choice to help teachers integrate the technology into their classrooms. Because sufficient professional development is one of the essential elements for best practices, it was necessary to create a resource that teachers can access (Dufour, 2014). This project provides a set of

professional development activities designed for addressing the needs of the teachers and ensuring learning for all.

The anticipated outcome of the proposed PLC is that participating teachers will gain new insights and skills for Smart Board and would effectively use this education technology to improve teaching and learning in their classrooms. A PLC, as defined by Zhao (2013), introduces a way teachers can improve the quality of teaching. This PLC provides a new and innovative workshop for teachers to focus on the themes most important to the team. I intend for this proposed PLC to provide teachers with additional resources to explain possible fixes for many common problems encountered with the implementation of the Smart Boards/IWBs in the daily lesson activities. By the end of the school year, the PLC teams should have been able to solve most problems related to the Smart Board. Teachers' skills and knowledge should have increased, providing more learning opportunities for students.

This proposed professional development project has the following goals: (a) provide a shared vision and collaboration for success with Smart Boards and (b) provide support through self and peer evaluation, peer mentoring, and knowledge and skill building. These goals will provide a basic outline for teachers to understand the importance of implementing Smart Board technology into daily instruction. Additionally, this professional development will provide teachers with knowledge and skills they can use in their classroom.

The first goal provides a partial solution to the problem of integrating Smart Board/IWB technology into lesson design. The proposed PLC will allow a collaboration effort to help with implementing Smart Board technology in class lessons. The collaboration leads to better communication among teachers. The second goal helps teachers overcome barriers they encounter while integrating Smart Board/IWB technology into daily lesson activities.

The proposed PLC embraces the following behavior outcomes:

1. Participating teachers will collaborate to gain insight into their strengths and weaknesses regarding integration of the Smart Board technology into their daily practice.

2. Educators will be able to share lesson plans and ideas with others in a professional learning community.

The proposed professional development project, once initiated, would allow the teacher to implement best practices in a classroom lesson. An active participant pool is one of the keys for successful implementation of the new resource.

Rationale

Findings from the mixed-methods case study inquiry presented in Section 2 served as a base for the selection of the project genre. The district's professional development plan for the school year did not contain any follow-up training for teachers to use Smart Board/IWB technology in classroom lessons. Based on the findings of the data collected, the project design supports the creation of a professional development

series (Dufour, 2014). I created a PLC to meet the needs of the teachers (Derver & Lash, 2013). Providing teachers with the PLC will provide a partial solution to this problem. Dufour (2014) suggested that the use of the PLC is the most effective form of professional development that teachers would be able to draw on to improve their best practices. Using this medium makes the needed information easier for teachers to incorporate the Smart Board into classroom lessons (Dufour, 2014).

Review of the Literature

In this review of the literature. I examine additional information based on the results found in previous sections. The outcomes of the review and research provided the basis for the proposed professional development and the PLC. This section continues with an analysis of recent publications on the needs of teachers when integrating Smart Board/IWB technology into daily classroom lesson activities.

While searching for recent publications, I used online libraries of Walden University and Tangipahoa Parish Library Systems, along with the library of Southeastern Louisiana University. Furthermore, I used the online Google scholar web searches to locate additional information. Databases used included *Academic Search Complete, ProQuest Central, Thoreau, Computer & Applied Sciences Complete, EBSCO, Education Research Complete, ERIC-Education Resources Information Center, Gale Group, and SAGE Premier.* Boolean search included *professional development, online professional development, professional learning community, and teacher professional*

development, administrative trends, using professional development, cost of professional development, teacher leadership, online learning, and *leadership development.*

Using the findings from Section 2, the search for additional information led to the creation of the professional development module. Additionally, a PLC will be created to help teachers use best practices when implementing Smart Board technology in classroom activities. With the professional development module and the PLC, teachers will have a plethora of resources available to help with the implementation of Smart Boards.

Theoretical Framework

A pragmatic approach served as the underpinning concept for the implementation of the PLC. In the pragmatic approach, the educational research should be of immediate assistance to learning institutions and educators (Lodico, Spaulding, & Voegtle, 2010). An effective PLC is based upon the work of a collaborative group that implements a set of rigorous standards to implement Smart Boards in the daily classroom activities. This professional development model provides experiences for educators to make informed decisions concerning the implementation of the Smart Board in the classroom. Jacobs (2010) explained that the new knowledge should cultivate a culture that nurtures creativity in all of learners. Glogowska (2011) explained that the growing popularity of the pragmatic approach among educational researchers because that it allows scholars to choose "the methodology best suited to answering the research question rather than conforming to a methodical orthodoxy" (p. 251). Using this approach will allows teachers

the opportunity to use the professional development PLC as a means to collaborate and find answers to problems they have in the implementation of the Smart Board in their classrooms.

To achieve the goals of the proposed professional development and PLC project, I created a professional development module for Smart Board/IWB technology aimed to support teachers in the local school district. This step allows support for teachers' in lesson planning and design. This professional development project will be available to everyone. The plan for the PLC would be to have a clear vision and shared mission for implementing Smart Board technology into classroom lessons.

The sessions are organized and structured for enhancing Smart Board usage in lesson activities. There is a need for a focus and direction for each of the session. In addition, there must also be a focus and direction for the PLC team meeting that will follow. Educators need to work together to motivate and inspire others to increase student achievement. Teachers need to be willing to adapt change to the growing educational community. PLC team members are committed to paying attention to details and build on establishing best practices in the classroom.

During the initial stage of the PLC model, learning essentials are created. The model can also be described as continuous learning improvements for the educators. The following stage focus on the incorporation of a system of strategic plans and goals for teacher to achieve full implementation of the Smart Board into daily classroom activities. Time must be given for initiating the plans and goals. The PLC teams must collect data,

analyze that data, and adjust the plans and goals. Using this method allows the educators to determine what is working and what is not.

DuFour (2013) indicated that the purpose of the PLC collaboration is to aid and engage the members. The engagement must be focused on the right work in order to accomplish the goals.

Another component of an effective PLC determines what measures will be taken when things are not working. PLC team sessions will allow participants to collaborate and discuss best practices to guide others. The PLC will continue to strive for increasing the Smart Board usage in classroom lessons.

Professional Development

Professional development reform is taking on a new look. Administrators are not using professional development models that include teacher collaboration. Supports for school leaders in professional development models are having people work collaboratively (Rieckhoff & Larsen, 2012). This new collaborate effort has a strong impact on vision of the group of administrators that are taking the initiative to create PLCs with their school teams. The new technology advances have changed the look of teaching in the classroom (Bolt, 2012). Rieckhoff and Larsen (2012) also stated that meaningful professional development must take place. Bolt (2012) stated that the approach to teacher professional development has not changed from the face-to-face mode yet. In any form according to Bolt (2012) participants need time to take in the

information learned and internalized it. Teachers need time to go and explore with the new knowledge and give the newfound information a test run in the classroom.

Teacher professional development is very essential to education reform. (Jenkins & Agamba, 2013) In the new order of common core adopted by 46 states, the missing link is teacher professional development. According to Jenkins and Agamba (2013), teacher professional development needs six features (content focus, active learning, duration, collective participation, coherence or format and alignment). With the adoption of Common core State Standards, the time is now to have effective professional development. The effects teacher professional development will have a positive influence in the classroom.

According to Veslor and Wright (2012), today's leadership requires professionals learn self-motivation and discipline. These skills help the learners in the class find success in the lesson. The Collaboration among colleagues allows a grounded culture develop and grow in the common framework toward the common goal of the team (Veslor & Wright, 2012). Using the same common practices with the Smart Board should provide our students with the necessary skills needed for the test.

Online professional development (OPD) is yet another method of meeting the needs of a growing trend to provide additional opportunities for teacher to expand their knowledge. Treag, Kleinman and Peterson (2002) stated that online professional development (OPD) should include the needs of the learners and should develop a plan based on those needs. Berger and Jim (2014) stated that the professional association

contributes to the development of the files and shapes professional development. The professional development money has gotten tighter; professional development has changed too in-house or relying on a new type of professional development (Berger, 2014). Berger, (2014) also stated providers of professional development should consider online as a vehicle to deliver the information. The value of online learning is an approach to enhance classroom learning (Saade, Kiaic & Nebeeb, 2012).

Alternatives to the one-size fit all professional development model is starting to take shape (Taylor et al. 2011). Professional development neglects experienced teachers. This new version of professional development allows for better differentiation for teachers in the different stages of the teaching career. New model professional development allows teacher to choose the professionalization enhanced pedagogical knowledge as well as create a positive work environment and teacher self-efficacy. Experienced teachers appreciate the opportunities to share new knowledge with others.

Professional Learning Communities

According the Dufour (2014), professional development provides the necessary skills teachers need to provide meaningful learning. Professional development need to be ongoing, collaborative, and job-embedded and results oriented (Dufour, 2014). It is also Dufour's (2014) belief that schools and districts need to function as a professional learning community (PLC). A PLC is a combination of individuals with an interest in education (DuFour, 2004). Adult learners need the PLC model for continued improvement in their careers (DuFour, 2014). In this model, all individuals become a

resource. From this team of individuals, a plan of action is created to follow and then executed, followed by an assessment of the plan to evaluate what was good, what was bad and what still needs to be addressed (DuFour, 2014).

Quality professional development requires many key components to effective professional growth (Derver & Lash, 2013). Also stated by Derver and Lash (2013) is that the professional growth occurs then the impact to learning is affected. Pocket (2012) stated teachers have a direct impact on the learning of their students. Improving the instructional practices using professional development should be the central focus of any school reform (Pockert, 2012). Teachers can guide their professional growth involving themselves in PLC's (Pockert, 2012). Using the PLC model, teachers can resolve the dilemmas they face through collaboration and site based inquiry (Pockert, 2012). The key to the success of the PLC is that everyone engages in the topic or problem as a team (Wells & Feun, 2013). Using the PLC model for teachers should allow all individuals a say and that will enhance communication about the use of technology in the classroom. In addition, the members will be able to collaborate and assist each other in the quest for better implementation of Smart Board technology in the classroom lessons.

Implementation

This sub-section describes professional development in the learning community project for this research study. In this section, I will also discuss the possible resources and existing supports and potential barriers as well as an explanation of the proposal for

implementation and timetable. Additionally, I will clarify the roles and responsibilities related to the PLC.

The implementation process for this PLC model will require teachers to meet as teams to discuss the Smart Board technology. In addition, the teams will troubleshoot any problems that occur when using the Smart Board and provide solutions to those problems. The PLC teams will also share knowledge with others who are not members of that particular learning team.

Table 4

3 Day Training

Day 1: Training of the PLC leaders

- Overview of goals and outcomes

- Activity:

- PLC training

  - What is a PLC and what's the BIG idea

  - Basic elements of a PLC

  - Key characteristics

  - How do Adults Learn?

  - Group Dynamics

  o Activity: What do you Bring as a Strength

  - What really happens after people leave a meeting?

  - Collaboration killers

- o Roles of a PLC Leader

  - ▪ Activity: Ten Roles for Teacher Leaders

    - • Focus on Learning

  - ▪ Collaborative Culture

  - ▪ Templates and examples

  - ▪ Debrief

Day 2: PLC Membership Training

- • Overview of Goal and Outcomes

- • Function of a PLC

- • Activity: Teacher Smart Board Technology Survey

- • Professional Learning Communities: Focus on Curriculum Teams

- • Foundation of PLC

- • Four Pillars of a PLC

- • Debrief

Day 3: PLC Membership Training Continued

- • Overview of Goal and Outcomes

- • Professional Learning Communities

- • Review of forms

- • Collaborative Team Meetings

- • Debrief

- Closing

Potential Resources and Existing Supports

Some resources will be necessary for providing the PLC professional development project. I have developed a comprehensive plan to implement and evaluate the PLC (Appendix A). These consist of an invitation to join the PLC, a survey for each participant to complete at the beginning and end of the professional development activities that assess the group in terms of a PLC, and a questionnaire to evaluate the entire process (Appendix A).

The school system has already implemented several PLC's throughout the district and many are members of different PLC's. However, this PLC will be created to help those in need of additional assistance with implementation of the Smart Board into classroom lessons. Using the PLC will allow teachers to have access to additional resources and teams can build open door climates for their classrooms. Some resources will be necessary for providing the PLC professional development project. I have developed a comprehensive plan to implement and evaluate the PLC (Appendix A). These consist of an invitation to join the PLC, a survey for each participant to complete at the beginning and end of the professional development activities that assess the group in terms of a PLC, and a questionnaire to evaluate the entire process (Appendix A).

The school system has already implemented several PLC's throughout the district and many are members of different PLC's. However, this PLC will be created to help those in need of additional assistance with implementation of the Smart Board into

classroom lessons. Using the PLC will allow teachers to have access to additional resources and teams can build open door climates for their classrooms.

Potential Barriers

The proposed professional development learning community will be an asset to the district. One potential obstacle to implementation may include a lack of interest from teachers. According to Easton (2012), the concepts of PLCs are fading away. Still another obstacle that may stand in the way of a successful implementation is teacher attitudes Easton, 2012). I hope the PLC professional development project will pique the interest of teachers or at least motivate them to consider the possibility that they could be using the Smart Board/IWBs more in their lessons. Easton (2012) states PLCs do foster thinking and collaborating among the participants. This PLC must fulfill the need of the teachers to implement the Smart Board in classroom lessons.

Providing the teachers with the resources of the professional development module and the formation of PLC team will foster new teaching strategies in Smart Board implementation. Belonging to a PLC team will help teachers' foster new communications between the professionals. Using the professional development module will help alleviate any apprehension when forming the PLC teams.

Proposal for Implementation and Timetable

The PLC plan is included in this project study. Initial PLC overview meeting will be held at the beginning of the year meetings for teachers. At this meeting, participants will be placed on individual PLC teams. Newly formed teams will meet for the first time

to determine goals, objectives as well as dates, time, location of the monthly meetings that will continue throughout the school year. Offering this format allows teachers to gain professional knowledge by collaborating and getting help for the members of the learning community. By doing so, gives teachers additional time to devote to other responsibilities.

Roles and Responsibilities

As part of this project study, I developed a plan and the activities that provide guidance for participants of the PLC. For example, a PowerPoint slideshow is available to the teacher leader when introducing new participants to the PLC and in guiding the PLC group (Appendix A). Although the PLC professional development series conducted over the school year, as with any such community, the members will decide the long-term timeline and the potential to keep the group as an ongoing support structure for teachers. I will be providing the overview of the professional learning community as well as the first meeting plan. The teacher leader is accountable for gathering supplies, keeping meeting notes, submitting meeting information for accountability, and other material necessary for the monthly meetings. Additionally the teacher leader is responsible for distributing the survey a summative assessment for evaluating the activities.

The teacher participants will be expected to attend the sessions and actively engage in the activities. Session times should be scheduled during common planning times.

Project Evaluation

The professional development learning community project will be an added resource for all teachers in the district. The overall goals of the professional development module and the professional learning community project are to provide a resource to teachers, aiding in incorporating Smart Board/IWB technology into their classrooms. The evaluation goal makes sure that the most current and pertinent information will be available to teachers. The current stakeholders would be the teachers who need to provide interactive lessons for students.

The summative assessment will be administered to all the PLC participants. The guiding questions listed below are based upon the outcomes that are listed earlier in this section. Participants of the PLC will provide information related to the following questions:

- How have the PLC sessions provided strategies and methods for incorporating Smart Board technology into classroom lessons?

- How effective were the sessions for solving common problems with the Smart Board?

- How effective were the sessions for finding and creating files to use with the Smart Board?

In addition to the above questions, participants will be asked to address the following issues:

- What do you feel are three strengths of the PLC sessions?

- What do you feel are three weakness of the PLC sessions?

- What do you feel are some needed improvements the PLC session to address Smart Board implementation in the classroom?

The evaluation will provide useful data to measure the success rate of the PLC, and to suggest potential areas for improvement. The Teachers Smart Board Technology Survey will be used at the beginning and end of the year to determine growth of the participants in the PLC.

Implications Including Social Change

Local Community

This professional development project will benefit the teachers in the district. The teachers will have another resource available to them to help with incorporating Smart Board/IWB technology into the lessons. Additionally, students will benefit from the lesson prepared on the use of Smart Board/IWB technology. Students will be able to participate more interactively with the addition of Smart Board/IWB technology into the classroom activities.

The professional development project is important to students because they will have a more interactive lesson in which they will be more engaged in the lesson. Engaging students promotes a positive learning environment where the students can grow and learn. Administration will see an increase of teachers using the Smart Board/IWB technology for interactive lessons with students actively participating in classroom activities.

Teachers can participate in the PLC team risk-free (Gallagher, & LaBrie, 2012).

Risk-free allows teachers to focus on the problem of Smart Board implementation in the

classroom. Teachers are using the resources and each other to build confidence when

using the Smart Boards. Once teachers have the knowledge and skills necessary to

implement the Smart Boards in the classrooms, the student learning will increase (Derver,

& Lash, 2013).

Far-Reaching

The larger context of this professional development project will provide a

resource for all teachers who use Smart Board/IBW technology. The PLC professional

development resource provides teachers with extra resources when planning lessons.

Teachers can show an increase in their evaluations each year by incorporating the Smart

Board as part of their use of technology in the classroom.

For teachers, the increase of the professional development will allow best

practices to emerge in the teaching of lessons in the daily routine of the classroom. With

the increase of the Smart Board implementation, the students will receive media-rich

lessons that should lead to more participation in the classroom and higher scores on tests.

Technology has proven to be a method proven that allows students to become active

learners in the classrooms.

This professional development learning community is a great source for all

teachers across the nation to increase interactive lessons in all classrooms. The PLC is a

way teachers can feel unrestricted when asking for help when using the Smart Boards.

The small membership of the PLC teams allows teachers to personalize the lessons with their group to have that added comfort level.

Conclusion

The purpose of my project study identified and explored the challenges teacher face related to use of the Smart Board/IWB technologies. Additionally, I explored the barriers preventing teachers from using Smart Board/IWB to their fullest potential, as well as, the needs related to supporting teachers to integrate the Smart Board/IWB into instruction. The professional development project, upon implementation, will be an on-going effort to help teachers implement Smart Board/IWB technology into classroom lessons. The yearly evaluation of the professional development learning community will guide the new information topics. It will be a continuous effort for the teachers to communicate to have the most-current information available for discussion and implementation.

The goal of this project study was to discover what keeps teachers from fully using the Smart Board/IWBs with daily instruction. It is the goal of the professional development learning community to be a resource of information for teachers to use in lesson planning to incorporate Smart Board/IWBs activities into their lessons. Teachers could use this professional learning community to provide best practices in the lessons they provide for students. The positive changes initialed by the use of this project will most-likely lead to students' more actively engaged in classroom activities and increase the effectiveness of teaching and learning in the classrooms.

Section 4: Reflections and Conclusions

Introduction

In the final section of my project study, I will share my insights and reflections about this experience. I will also include a summary of my work with conclusive remarks of my scholarly work. Included in this section will be a reflection of mu scholarship. Additionally, I will provide an analysis of me as a scholar and practitioner. Lastly, this section will conclude with a glimpse of the potential impact and positive social change that will result from this project study. I will also make suggestions about how to extend my research and general suggestions about further research related to the problem and purpose of my project study.

Project Strengths

In this project study, I used a mixed methods case study approach to the technical difficulties teachers are experiencing in implementing the Smart Board into their daily classroom activities. Teachers understand that there is a lack of professional development on using and implementing the Smart Board. Teachers needed to find/create grade-specific material to use interactively with students. Using the PLC as a media to disseminate the information to the teachers was the logical choice to reach participating teachers. This method of professional development will allow teachers to take responsibility for their professional development. The collaboration between the participants in the PLC will be valuable to everyone. Other project strengths for this project include minimal cost for implementation, as well as not having to buy any

equipment or hiring of a consultant. Additionally, with the implementation of the PLC, there will be a reduction in teacher isolation as well as having better informed and committed teachers in the classrooms. Lastly, another strength would be the academic gain for the students in the classrooms.

Recommendations for the Remediation of Limitations

Participation in a PLC is often at the teacher's discretion. The participants may not contribute to the learning community in a manner that is conducive to the culture of the team. Another problem could be the makeup of the learning community; there may be conflicts of personality that could cause somewhat of a problem with the makeup of the PLC. It may be possible to keep the team together, and if the focus stays on the topic and the leader provides specific learning experience for everyone.

Years of traditional professional development and PLCs has not given teachers enough support in the classroom. Transforming professional development and the creation of PLC teams have opened up new and exciting times in education reform. The delivery of media-rich lesson has teachers waiting for support when implementing the Smart Board technology in their classrooms. This project study allowed a small look into the challenges and barriers teachers face when incorporating this technology. In the local district, training has fallen short when supporting teachers to implement the Smart Board technology.

Scholarship

Scholarship of teaching and learning starts with the idea that teaching is scholarly work (Ginsberg & Bernstein, 2011). Ginsberg and Bernstein (2011) suggest that academia does not talk enough about teaching. Using these skills will create a new open-mindedness teachers need to improve student academic outcomes.

In my journey, I became skilled at canvassing many literacy resources that enhanced my project study. An in-depth analysis of these scholarly publications allowed me to formulate the problem statement and research questions. As I traversed into the methodology development stage, the use of a mixed methods approach to understanding the underpinnings of the project study seemed the logical choice. Data collection proved to be a daunting task. The coordination of interviews, along with the completion of online surveys, tested my scheduling ability. The analysis of the data collected, again proved challenging.

Creating a project based on the findings became the next phase of the study. This process allowed me to create an avenue to help each teacher move forward with the use of the Smart Board. This part of the journey was one of the hardest parts of the entire project. This phase of the project kept me busy with changes to my research, and I developed the project into something that will benefit the overall aspects of the audience I was trying to reach.

Finally, completing the rewrites and changes to the document made this document worthy of helping change the face of professional development. Once approved, I will be

able to share my finding with the local and district schools. It is my hope that they will adopt the PLC model in having other teachers collaborate to have learning team working toward a common goal for the betterment of the students.

Deciding to start this journey was not an easy task. I had to look at various aspects of my life. I had to consider my family, friends, career, and health. Once the decision was made, I was off on a journey that tested me throughout every semester. Each semester challenged me and molded me into a knowledgeable person. These tasks throughout this journey provided the necessary steps for me to validate my foothold as a learned professional in the educational community.

Project Development

My current project study development began as a recurring event of having to share my knowledge with fellow colleagues concerning a variety of issues with the Smart Board. Because I decided to further my education, the classes I took at Walden University helped me formulate these events into a formal research question to investigate. Using the Walden University library's holdings, I was able to identify a gap in practice. Further investigation led me to the inception of a methodology to explore this problem.

After the collection and analysis of data, it was clear teachers needed something to assist them with this problem. The project creation was intended to improve the ongoing supported that teachers needed with the implementation of Smart Board technology in the daily classroom activity. Project development for this project required

me to read and research new information about PLCs. I had to focus my reading and research on the implementation of the PLC for the benefit of the teachers. I learned that there are many different ways PLC are used, and no one way is best. The blending of all the information gathered helped me to create this new idea of a PLC for Smart Boards. It is my belief that the PLC resource will assist teachers with multiple forms of professional development to assist with Smart Board issues. This resource will allow quick, effective means to alleviate frustration and keep the interactive aspect to lessons.

Leadership and Change

Technology is constantly changing. New leaders in educational technology must help classroom teachers effectively use the technology tools. Using best practices in lesson design will benefit all learners in the classroom. Educational leaders must be able to understand where teachers are and then assume the task of moving them toward a new way of thinking.

Kuhn (1962) provided a vision on rethinking how programmed people are to believe the information given without a second thought. Kuhn also stated that a challenge traditional thinking and ask necessary questions to gain a new perspective. According to Kuhn, paradigms are the catalysts that prompt scientists to find new discoveries. These paradigms are necessary to help the people adjust to the changing world. Change takes time. Change brought about carefully will be more acceptable to the intended audience.

McLuhan and Zingrone (1995) stated that the media is the message. It is up to the people to decode this message and make meaning from it. Children understand the new

gaming devices of today, making it no wonder the kids today are bored in the classrooms. Students want the fast-paced, multi-tasking events like games in the classroom. Jacobs (2010) stated that the curriculum is not the only focus; concurrently, the focus needs to cultivate a culture of creativity in all learners. Technology is a part of the everyday world. Educational leaders effect change in the classroom. As new leaders assume the roles in education, a paradigm shift to accept technology as an assistive tool for teachers is necessary.

Analysis of Self as Scholar

My interest in learning has led me on a journey toward a goal that I hope will eventually affect others in education. I found successes along the way, but I found I needed more to fulfill a need that burns deep inside. The search for knowledge has been a driving force within me. I hope my teaching I will be able to convey that message to my students.

The doctoral journey at Walden University was a path with many obstacles that I had to overcome. Over the past several semesters, it is been noted by my committee that major improvements in my writing skills have occurred. The course-work I have taken at Walden University provided me with an opportunity to practice and apply my knowledge allowing me to expand my thinking and understanding.

As a scholar, I have learned much, I certainly did not expect this journey to take so long. This process has been humbling at times. I have had to learn that writing for scholarship is a very different type of writing. This research has provided me with a good

foundation to start my forward steps into new areas of education. With this project study completed, I will continue to improve my writing skills, as well as improve my skills as a researcher. I hope to continue to be a lifelong learner whether that leads me to continue working with students in the classroom or move into the supervisor's role.

Analysis of Self as Practitioner

Taking classes at Walden University quickly immersed me in being a practitioner. I had to adapt to social change and become a change agent to meet the rigorous requirements of the doctoral program. I had to find ways to improve interactive instruction in the classroom and improve the learning in the classroom.

I am interested in developing my skills as an educational innovator. My current project allowed me to experience a part of education that interested me. I feel the need to sharpen my educational research skills and knowledge to be able to share with my colleagues.

Analysis of Self as Project Developer

My doctoral project study had many roadblocks. These roadblocks caused some major setbacks. The main challenge was time. The time issue caused me to fall further behind on my timeline for completing my doctoral journey. The difficulties caused major frustrations for me.

The data finally collected lead to the project Professional Learning Community (PLC). The hardest part was the creation of the model for the PLC. The next issue will be to challenge myself to use the project as a springboard for others in the district to use this

model to help teachers implement Smart Board in the daily lessons. If for nothing else but to help, the students understand the new and daunting standards and objectives they must master.

The Project's Potential Impact on Social Change

The purpose of this study identified the challenges and barriers teachers face incorporating Smart Boards/IWBs into the daily routines of teaching. Creating interactive resources often takes teachers additional time to engage the learners.

The research showed the overall need for additional and on-going professional development to support teachers as implementation of Smart Board/IWBs are quickly becoming a vital part of the daily classroom activities. Increasing teacher technology skills may well encourage increased use of the Smart Board/IWB more interactivity in the classroom.

Because of this project study, social change is encouraged by allowing teachers additional time to explore and create interactive lessons for objectives taught throughout the school year. The potential for improved student performance and learning is another impact that should be seen in the future. Honoring some of the findings by administration would help to increase teacher enthusiasm for technology integration.

Directions for Future Research

This project study added to the body of knowledge in that many teachers are experiencing issues with the Smart Board/IWB implementation. At this local level, several incidents caused teacher frustration with the Smart Boards/IWBs. Additionally,

teachers also understand the importance of professional development to help with the issues. Specifically teachers were stating that there is not enough time to create meaningful interactive activities for students or that the computer hardware had a malfunction.

The current study was limited to a small number of participants in only one school in the school system in one of the Gulf Coast states. This research should be repeated with a larger sample. The repeated study should include all the schools in the school systems district or at least with one subject area.

A study using all teachers of the school system would provide a better understanding of the barriers and frustrations of teachers in the classroom when using the Smart Board/IWB technology. Using the data from the PLC evaluations will also be possible research project to measure the effectiveness of the PLC. In addition, because this PLC will focus specifically on Smart Board technology it possibly other research on the technology usage in the classrooms and the effect on student achievement should be conducted.

Conclusion

Technology continues to add more to lessons in the classroom. The Smart Board/IWB adds the interactivity to lessons and engages students. Sometimes these Smart Boards/IWBs cause barriers and frustrations for teachers when implemented in the classroom.

This project study represented an attempt to fill the gap of knowledge about Smart Board infusion into classroom lessons, as well as, to address the problem of inadequate professional development. This research included a professional development learning strategy that is teacher-driven. Jacobs (2010) stated that a change in strategy promotes professional community well versed in developing a 21st century curriculum.

Positive social change occurs when stakeholders are empowered to participate willfully. Professional learning communities creates an environment where teachers can express thought and ideas with others and benefit from the learning experiences from the team meetings. Research-based strategies combined with positive teacher self-efficacy creates a meaningful learning experience where teaching and learning will improve.

Over the course of the development of this research, I have found that the experiences have changed and challenged me to reach beyond expectations. I have moments of joy as well as having those days of almost giving up. In the final analysis, I have found myself a better teacher, and leader. I take this new information with me as I continue to make a difference in the educational field.

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Appendix A: The Project

Professional Development:

A Professional Learning Community (PLC) focused on using Smart Board in daily

classroom activities.

By Elizabeth Ann Lewis Pourciau

Introduction

Teachers use the Smart Board in their classrooms and yet still find difficulties with proper implementation procedures. The problem is the lack of effective professional development. At the local level, the district has invested millions of dollars to provide every classroom with a Smart Boards but inadequate teacher trainings have left teachers frustrated and not effectively incorporating Smart Board technology into lessons. A need exists that will provide teachers with a meaningful solution to this problem. In my project study, teachers, even though they attended Smart Board trainings, still needed additional training to help effectively implement Smart Board technology into their classrooms. The results of this project study suggested the creation of the proposed professional learning community (PLC) in regards to Smart Board integration to assist the teachers in gaining knowledge and skills. Eaton (2012) states adult learning is essential for schools. The PLC structure format proved a new way of collaboration (Eaton, 2012). Collaboration among teachers fosters a new way of allowing teachers to express their strategies in an environment that is non-threatening.

Goals and Outcomes

The goal of the project is to provide a broad overview of the professional development Learning Community to fit needs of all district educators. These people also will need to be encouraged to attend a proposed training.

It is the goal of the planned professional development series that participants will demonstrate the following behaviors:

- Provide a shared vision and collaboration for success with Smart Board.

- Provide support through self, peer mentoring, knowledge, and skill building.

The outcomes of this professional development is to provide teachers with support when incorporating Smart Board technology into classroom lessons. Creating a Professional Learning Community will allow teachers to create the learning paths they need according to their individual needs.

The outcomes of the planned professional development series that participants will demonstrate the following behaviors:

- Participating teachers will collaborate to gain insight into their strengths and weaknesses regarding integration of the Smart Board technology in their daily practice.

- Educators will be able to share lesson plans and ideas with others in a professional learning community.

The professional development training includes research-based strategies, and resources to guide the design and implementation of the professional development professional learning community in Smart Board technology. The use of professional learning community model improved the support and resources that the teachers have expressed in the outcomes expressed in the data of the associated project study.

Timeline

Short term Training

      A 3-day training event will provide leaders and teachers with the knowledge to implement the PLC model. Day 1 training will focus on the leaders of the PLC groups. This days training will focus on activities for team leaders on helping PLC teams individualize the professional development. Days 2 and 3 will focus on all members of the PLC group. Day 2 training will focus on creating the knowledge base and function of a PLC in the professional development. Most of Day 3 will involve the formation of PLC teams and conducting the PLC first team meetings (Table 4).

On-Going Training

      The ongoing professional development PLC will occur monthly throughout the school year during common planning times. PLC teams will determine topics for meeting based on the needs of the teachers. The PLC team members will establish PLC leaders. Teachers are responsible for taking notes, participating, and collaboration. The plan is a basic design for developing effective professional development that meets the needs of the teachers to include Smart Board integration into daily teaching. All teacher are included in the targeted audience (Table 4).

Table 4

Timeline chart.

Short Term Initial 3- Day Training	
Day 1	PLC team leader Training

Day 2	All participant day Training
Day 3	All participants day training continued

Long-Term Monthly meetings with possible topics	
Month	Possible Topics
Sept.	Building a PLC
Oct.	notebook files
Nov.	notebook files
Dec.	lesson plans
Jan.	lesson plans
Feb.	Templates
Mar.	Templates
Apr.	Tips
May	Tips

Note. Possible topics are just a suggestion.

PowerPoint Slideshow

The following PowerPoint slideshow incorporates the 3-day professional

development training. The PowerPoint is designed to be used as the training procedures

for the 3-day workshop. The first days training focuses on the training of the PLC team leaders. Days 2 and 3 focus on the entire professional development participants.

The training provides a shared vision and collaboration for the participants as members of the professional learning community (PLC). This PLC helps provide support through self, peer-monitoring, knowledge and skills building. Participating in this professional development allows teachers to gain insight for collaboration. Strengths and weakness of skills can be shared as part of this PLC process. Finally, the sharing of ideas and lesson planning in the PLC provides added supports teachers need when incorporating Smart Board technology into daily classroom activities.

The information in the slides should be presented in the 3-day training for the participants of the professional development. The PowerPoint has been adapted from: All Things PLC; and Solution Tree'.

Slide 1

Professional Learning Communities (PLC)

Welcome to a new school year. I know this year will be an exciting a very successful. This year we will be implementing Professional Learning Comminutes (PLCs). I hope that you are ready to begin this new year with a new vision and goals.

Slide 2

•Day One

Slide 3

Overview

• **Day 1**
  • **Training of the PLC leaders**

• Day 2
  • PLC Membership Training

• Day 3
  • PLC Membership Training continued
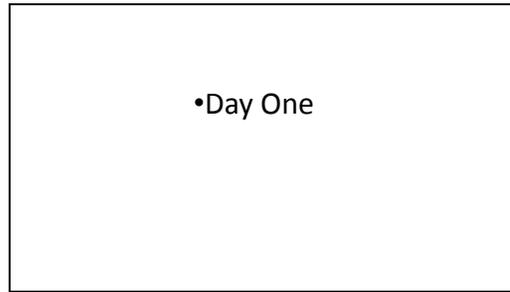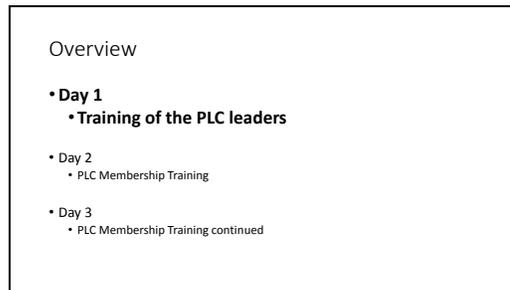
Slide 4

Goals and Outcomes

• Goals:
  • Provide a shared vision and collaboration for success with Smart Board
  • Provide support through self, peer mentoring, knowledge, and skill building.
• Outcomes:
  • Participating teachers will collaborate to gain insight into their strengths and weaknesses regarding integration of the Smart Board technology in their daily practice.
  • Educators will be able to share lesson plans and ideas with others in the professional learning community.

Goals
Provide a shared vision and collaboration for success with Smart Boards
Provide support through self, peer mentoring, knowledge and skills building.

Outcomes
Participating teachers will collaborate to gain insight into their strengths and weaknesses regarding integration of Smart Board tech

Slide 5

Introduction Activity

·.

Introduction activity: Provide the following directions to the group.
• Each participant takes a sticky note from the table supplies and write their name on it.
• Find a partner; introduce one another in 60 Seconds.
  • Name/ Years in education
  • Subject teaching this year
  • One goal you want to accomplish this year
• After the partners have completed the introductions
• Round 2 Continue with these instructions
  • Switch names…
  • Find a new partner…
  • Introduce yourself as the name on your paper using the information you gathered from the meeting
• Round 3
  • Same as round 2 only with a new partner

- Round 4
  - Find the person with your name on it.
  - Find out how closely the information they share matches what you said in the beginning.
- Ask :
  - How many ended the activity with the information somewhat accurate?
  - How many ended the activity hearing things you never said or done?

Slide 6

What is a PLC?

- An on going- process in which educators work <u>collaboratively</u> in recurring cycles of collective inquiry and action research to achieve better <u>results</u> for the student they serve.

- **PLC's operate under the assumption that the key to improved <u>learning</u> for students is continuous, job embedded learning for educators.**
  DuFour, DuFour, Eaker and Many (2010)

Slide 7

PLC Big Ideas & Core Values

• **Ensuring that students learn**
  • *Learning for all*
• **A Culture of Collaboration**
  • *Teamwork*
• **Focus on Results**
  • *Data-Driven Decisions*

Slide 8

4 Basic Elements of PLCs

• Mission
  • Why
  • Why do we exist? (purpose)
• Vision
  • What?
  • What do we hope to become?
• Values
  • How?
  • How must we behave?
• Goals
  • Which steps and when?

Slide 9

> ### Research On PLCs
>
> - Shows several overall benefits for teachers: Reduction in teacher isolation, increased commitment to school mission and goals, collective responsibility for student success, lower rates of absenteeism, and commitments to making changes in practice (Hord, pp. 33-34).

Slide 10

> ### PLCs Done Right Show Promise
>
> - Rick DuFour and Robert Eaker (1998, 2002, 2004) suggest staff in effective schools work together to answer three critical questions:
>   - (1) Exactly what is it we want all students to learn?
>   - (2) How do we know if they learned it?
>   - (3) What will we do if they don't learn?

Slide 11

**What are Key Characteristics
of PLCs?**

• **Focus on Smart Board Integration**
  • Results Orientation
  • Action Orientation and Experimentation
  • Collaborative Culture Focused on technology
  • Collective Inquiry into Smart Board integration
  • Continuous Improvement

Slide 12

Why PLCs?

• One-shot in-services are not effective.
• Only 5-8% of what is learned at a workshop is actually implemented.
• Most workshops require no follow-up, support, coaching, or feedback.
• Most training occurs too far away from the classroom.
• Most workshops/trainings include little discussion about actual classroom practice and instruction.

Slide 13

Why PLC's?

•Most staff development has been mandatory.

•Most school inservices are designed with little input from the learners (teachers).

•Most staff development treats all learners the same - no differentiated instruction for the variety of needs of each teacher.

•Most adults need social interaction to learn.

• A great deal of adults' learning is based on experience, and sharing those experiences has not been tapped adequately.

Slide 14

How Do Adults Learn?

• **Pedagogy** is a term used to describe child and adolescent learning.
• **Andragogy** is a term used to describe adult learning theory
• Andragogy has 4 principles about adult learning

Slide 15

Principle #1

The first principle of andragogy assumes **adults are motivated to learn based on experience and personal interests.** Adults need to know why they should learn something before undertaking to learn it. While adults are responsive to some external motivators, the most potent motivators are internal pressures. This principle assumes that all normal adults want to keep growing and learning.

Slide 16

Principle #2

The second principle of andragogy assumes adults' orientation to learning is life-centered. **Therefore, experience is the richest source for an adult's learning.** Past experiences play a major role in new learning that takes place for the mature learner. Adults come into an educational activity with both a greater volume and a different quality of life experience from youth.

Slide 17

Principle #3

The third principle of andragogy assumes **adults have a deep need to be responsible and to direct their own learning.** Adults want to be involved in helping choose and select their own learning experiences and to be in control of the learning itself.

Slide 18

Principle #4

The fourth principle of andragogy is related to **adults' readiness to learn. Adults react positively to just-in-time training.** That is, adults are motivated to learn things based upon a real-life need to know. Adults have different needs at different stages in their careers. This principle is important when designing adult learning situations.

Slide 19

Changing Attitudes and Beliefs

- It must be understood that most learning occurs through experimentation and trial and error. Convincing a teacher, up front, that a new instructional strategy will work is probably a waste of time. They must be allowed to try it in a safe, supporting environment.

Slide 20

Effective Professional Development

- Develops, reinforces, and sustains group work using collaborative groups.
- Involves active participation of teachers.
- Is developed with the needs of the teachers and students as the priority.
- Sustains a focus over time – continuous and ongoing
- Learning takes place as close to the classroom as possible.
- Use of formative assessments to actively monitor student learning and provides feedback to make adjusts.

Slide 21

> Why PLC's
>
> • Research about teacher learning supports the idea that teachers learn best from their own practice and discussions with other teachers about such practices.

Slide 22

> Definition of a Professional Learning Community
>
> Professional learning community (PLC) groups are synergistic, self-directed, learning teams that work collaboratively to improve teachers' knowledge and skills and student learning.

Slide 23

Characteristics of PLCs

Synergistic PLC teams have the following characerics:
- Effective PLCs have a common goal.
- Effective PLCs are interdependent.
- Effective PLCs have a sense of empowerment.
- Effective PLCs have participative involvement.
- Effective PLCs are interactive.
- Effective PLCs are appreciative and understanding.
- Effective PLCs compromise and build consensus for the good of the cause.
- Effective PLCs Implement and reflect.

Slide 24

Purpose of PLCs

- Develop a deeper understanding of academic content.
- Support the implementation of curricular and instructional initiatives and support each other.
- Integrate and give coherence to a school's instructional programs and practices.
- Target a school-wide instructional need.
- Provide a time when teachers can examine student work together.
- Study research on teaching and learning
- Monitor the impact of instructional initiatives on students (action research).

Slide 25

Why PLC's?

• Teacher's are empowered to work to improve student learning.
• Their sense of affiliation, with each other and with the school, and their sense of mutual support is increased by collaborative work with peers.
• Teachers' sense of personal dignity in their profession is increased.
• Teachers' collective responsibility increases.
• It is brain-based

Slide 26

Retention Rates for Learning

Lecture – 5%
Reading – 10%
Audiovisual – 20%
Demonstration – 30%
Discussion Group – 50%
Practice by Doing – 75%
Teach Others/Immediate Use of Learning – 90%
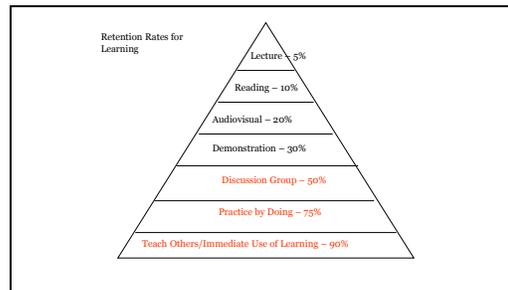
Slide 27

Why PLCs?

• Aligned to the way adults learn best.
• Is sustained and ongoing
• Staff is more motivated and engaged
• Creates a community of learners.
• Aligned to characteristics of effective staff development

Slide 28

GROUP DYNAMICS

Slide 29

What Does an Effective Team…

• Look like?

• Sound like?

• Feel like?

• Accomplish?

Slide 30

STAGES OF A TEAM

FORMING, STORMING,
NORMING AND
PERFORMING

Slide 31

Forming

- This is the initial stage of a team. It allows for getting to know one another and make new friends.
- During this phase, the team meets and learns about opportunities and challenges. They also agree on goals and begin to tackle the task.
- This is the opportunity to see how each member works as an individual and see how they respond to pressure.

Slide 32

Storming

- This stage is necessary for the growth of the team.
- In this phase, different ideas compete for consideration.
- The team addresses issues such as; what problems are we supposed to solve? How will we function independently and together? What leadership model will we accept?
- Team members open up to one another and confront each others' ideas and perspectives during this phase.
- Tolerance of each team member and their differences needs to be emphasized.

Slide 33

Norming

- In this stage team members adjust their behavior to each other as they develop work habits that make team work seem more natural and fluid.
- Team members often work through this stage by agreeing on rules, values, professional behavior, shared methods, working tools and even taboos.
- During this phase, team members begin to trust each other, and motivation increases.

Slide 34

Performing

- When teams reach this stage, they are high-performing and function as a unit as they find ways to get the job done smoothly and efficiently without inappropriate conflict or the need for external supervision.
- Team members have become interdependent and are motivated and knowledgeable in this phase.
- Even highest performing teams may revert to earlier stages in certain circumstances. They may even go through this cycle many times as they react to changes.

Slide 35

What Strengths Do *YOU* Bring to the Team?

I am good at _____, so
when _____ happens, I'll be
responsible for _____.

Slide 36

Where do you think you are?

Slide 37

> What *really* happens
> after people leave the
> meetings?

Slide 38

> What do you do when
> you see a "look"
> between two team
> members when a third
> person talks?

133

Slide 39

What do you think the
identity of the leadership
team has to the rest of
the staff?

Slide 40

20 Collaboration Killers

1. It will never work
2. Let's form a focus group and do a survey
3. It's too early in the year
4. That's not my job
5. We tried that before
6. There's no money in the budget
7. Let's just think about it...
8. It's too close to the holidays
9. Let's not rush into anything
10. Maybe we should form a committee
11. It's really too late in the year
12. We'll never have administrative support
13. Let's wail until next year
14. No one else does it that way
15. We've never done it that way
16. We already tried it in my old school
17. My old school didn't do it that way
18. It wouldn't work here
19. It can't be done
20. Everyone would hate it

Slide 41

Roles of PLC Leaders

Slide 42

Leadership ≠ Leader

Leadership = Capacity Building

Slide 43

Teacher Leader use many Hats

- Resource Provider
- Instructional Specialist
- Curriculum Specialist
- Classroom Supporter

- Learning Facilitator
- Mentor
- School Leader
- Data Coach
- Catalyst for Change
- Learner

Slide 44

Activity: "Ten Roles for Teacher Leaders Reflection Sheet"

•In your group folder

•Fill out both columns

•Talk with your table about your assessment vs. how others view you

•What area do you want to work on?

Slide 45

Leading for Learning

▸ Intense Professional Development

▸ Honoring Time

▸ Focus-Student/Data Driven

▸ Monitoring

▸ Observation and
  Conferencing
  ◦ Building Consensus

Focus on Learning

Slide 46

4 Important Questions to Guide PLCs

1. What do we want students to know?

2. How will we know when they know it?

3. What will we do when they don't?

4. What will we do when they already
   know it?

Focus on Learning

Slide 47

Initiating a Collaborative Culture

▶ Build the Spirit

▶ Make the purpose explicit

▶ Accept Responsibility

• Don't give up

• Deal with issues

• Facilitate leadership
  • Develop agendas
  • Supply materials
  • Etc…

A Collaborative Culture

Slide 48

Collaborative Cultures Can…

▶ Build on existing expertise

▶ Pool resources

▶ Provide moral support

▶ Create a culture of trust

▶ Confront problems and celebrate successes

▶ Become empowered and assertive

A Collaborative Culture

Slide 49

Keeping Your Team Focused

▶ Establish Norms:
  ◦ 7 Norms of Collaboration
  ◦ Build Consensus

▶ Provide evidence of student learning—develop common formative assessments

▶ Data Driven Dialogue
  ◦ Study state assessment results
  ◦ Summative & Formative Assessments
  ◦ Where to Start? 4 Questions

Focus on Results

▶ Identify areas of improvement

Slide 50

7 Norms of Collaboration

▶ Pausing
▶ Paraphrasing
▶ Probing for Specificity
▶ Putting Ideas On the Table
▶ Paying Attention to Self and Others
▶ Presuming Positive Intentions
▶ Promoting A Spirit of Inquiry

Slide 51

Activity: Building Spirit: Hopes and Desires
• As a group discuss the following questions. The idea
  to set goals and look for common ground.

1. What are some hallmarks of the past year or years?

2. What are some hopes and desires for your   school
   this coming year?
   In 5 years?

A Collaborative
Culture

Slide 52

Data Template Examples

•Here's What, So What!, Now What!
•Right Angle
•Star Gazing
•Road Block Removal
•Data Charts

Slide 53

Debrief

- What did you accomplish today?
  - Forms
  - Norms
  - Time
  - Schedules
  - Logs/Agendas
  - Data
  - Groups

Slide 54

Day 2

Slide 55

Overview

• Day 1
  • Training of the PLC leaders

• Day 2
  • PLC Membership Training

• Day 3
  • PLC Membership Training continued

Slide 56

Goals and Outcomes

• Goals:
  • Provide a shared vision and collaboration for success with Smart Board
  • Provide support through self, peer mentoring, knowledge, and skill building.
• Outcomes:
  • Participating teachers will collaborate to gain insight into their strengths and weaknesses regarding integration of the Smart Board technology in their daily practice.
  • Educators will be able to share lesson plans and ideas with others in the professional learning community.

Goals
Provide a shared vision and collaboration for success with Smart Boards
Provide support through self, peer mentoring, knowledge and skills building.

Outcomes
Participating teachers will collaborate to gain insight into their strengths and weaknesses regarding integration of Smart Board tech

Slide 57

Function of a PL

Slide 58

THE PLC VISION

Sharing ideas & learning from colleagues with the focus on student learning

Slide 59

What do PLC's discuss
FOUR CORNERS

Do you…Strongly Agree, Agree, feel Neutral or Disagree?
1. PLCs are valuable and useful in our school.
2. When teacher knowledge of content and standards increases, student learning increases.
3. When teacher knowledge of good teaching strategies grows, student learning increases.
4. When teachers know their students' current levels of understanding and gaps in knowledge, classroom time is used more effectively.
5. When teachers share ideas, teaching strategies, and lessons, teacher workload decreases and students have richer learning experiences.
6. When teachers converse about student learning and performance, teachers and students can benefit.
7. PLCs are valuable and useful in our school.

Slide 60

Using Agendas/Logs

• Agendas are necessary to maintain focus. They may be created by the PLC leader or collaboratively (during PLC time, via email, or other).
• Logs/Minutes will help PLC members to reflect and implement.
• Plan time for: celebrating, reflecting, revisiting, planning, dealing with logistics
• BE DEDICATED TO THE AGENDA, BUT NOT A SLAVE TO IT!

Slide 61

Professional Learning Communities

Is your school organization ready for Professional Learning Communities?
- Do you as a **school leader** have the necessary experiential background, as well as pertinent knowledge/skill set to successfully implement PLCs?
- Does the **staff** have the necessary experiential background, as well as pertinent knowledge/skill set to successfully adopt and participate in PLCs?
- Does your school's **Mission, Vision and Core Values** align with Professional Learning Communities?

61

Slide 62

Professional Learning Communities:
Essential Questions
- How do we define PLCs?
- What are essential characteristics?
- How do they form?
- Who gets to be part of a PLC?
- How do you know work is being accomplished?
- How do you know when the work is completed?
- How do PLC members act?
- How are PLC members held accountable?
- Who leads PLCs?
- What knowledge/skills are needed to effectively lead a PLC?
- How are PLCs assessed/evaluated? . . . Should they be?

62

Validation we are doing the right thing

Slide 63

Professional Learning Communities: Example of Key Characteristics

- A focus on **student learning**
- A **collaborative** culture
- Collective inquiry into **research-based** best practice
- **Action orientation** – professional learning by doing
- All members **mutually accountable** for targeted results

Adapted from Richard DuFour
(Learning By Doing – 2006)

63

Slide 64

Professional Learning Communities: Rationale

- Why Professional Learning Communities?

- What distinguishes Professional Learning Communities from committees, teams, cohorts, ad-hoc groups . . . ?

64

Slide 65

Why Professional Learning Communities?

- Abundant research indicates they work:
  - Robert Marzano
  - Richard DuFour
  - Kati Haycock
  - Linda Darling-Hammond
  - Mike Schmoker
  - Ron Edmonds
  - Larry Lezotte
- Collective intelligence is more powerful than that of any individual
  - Do you/we believe in this? If so, there are several critical questions associated with PLCs that must be asked/answered.

65

Validation we are doing the right thing

Slide 66

Professional Learning Communities: FLEXIBILITY

- Having the freedom to pursue important tasks for a **long period of time** (staying the course)

- Being **nimble** enough to confront new challenges, to take on new members with alacrity

- Expanding focus when the need arises

66

Part Two: Ensuring flexibility – How do we balance the need for stability and focus while allowing for individual interest?

Slide 67

Professional Learning Communities: FLEXIBILITY

- Flexibility is a necessary characteristic of effective and productive PLCs. The challenge to ensure flexibility is significant in that **ardent, opposing forces may be present**.
- How do we balance –
    - Depth and Breadth?
    - Stability and Change?
    - Diversity and Focus?
    - Networking and Integration?

67

Slide 68

Professional Learning Communities: EFFECTIVENESS

- Not all PLCs are equally effective

- We need to ensure there is clarity, precision, rigor, discipline and clear purpose to the work of PLCs so that they successfully raise both staff and students to higher levels of performance.

- How is PLC effectiveness measured?

68

Slide 69

Professional Learning Communities: SUSTAINABILITY

• How can we work to create learning communities that support enduring change that results in:
    • Improved teaching and services for all students?
    • Improved student achievement for all students?
• Confirmative Evaluation
    • Ensuring our efforts result in necessary changes/improvements

69

Slide 70

Professional Learning Communities: What is Needed

• There must be a PLC Framework in place which provides clarity and confirmation of:

    • Your **definition** of PLC

    • How PLCs align with and contribute to your **Mission, Vision, Core Values**

    • A **confirmation by all staff** that PLCs add value to the organization

    • **Motivation and readiness**

70

Slide 71

Professional Learning Communities: What is Needed

- There must be a PLC Framework in place which provides clarity and confirmation of:
  - A **systematic** means of implementation
  - An understanding of the **culture change** typically associated with PLC implementation
  - Alignment of PLC efforts to **targeted school- wide student achievement goals**
  - **Resource** allocation and alignment

71

Slide 72

Learning is the Work

- In seeking <u>deep change</u>, **people have to learn in the settings in which they work**. It turns out that learning in this way, individually and collectively, requires enormous focused and sustained attention to a small set of key factors that are essential for success.
- Continued on next slide . . .

Slide 73

> ## Learning is the Work
>
> - If one looks closely at the companies that do this well, such as Toyota and Southwest Airlines, what is striking is that being successful year after year, decade after decade, demands concentrated effort by scores of people reinforcing and leveraging each other's efforts. This is why so few organizations do it.
>   - Richard Elmore – Harvard School of Educational Leadership (2008)

Slide 74

> ## A 7-Step Process
>
> - It is imperative for schools leaders to focus on each of the seven steps to the successful institutionalization of high performance teams (Professional Learning Communities)
>   - Culture shift
>   - Defining PLC/High Performance
>   - Identifying essential leadership characteristics
>   - Goal setting (effective decision making)
>   - Evaluation of team effectiveness
>   - Sustainability

Slide 75

It's hard work – but it works!

- As much attention must be paid to the health and performance of teams as it is paid individuals in your school organization.
- Teams are actually more fragile than individuals
- It requires 100% attention, 100% of the time, indefinitely . . . This take resources and tremendous energy.

Slide 76

Sustained Growth

- Leverage your collective expertise
- Improve your professional practice
- Improve student achievement
  - Sustaining organizational growth through the development of teams and individuals.

Slide 77

Teacher Smart Board Technology Survey

Slide 78

Professional Learning Communities
A Focus on Curriculum Teams

Slide 79

Change in the Mission of Education

Old Mission
- Every Student *CAN* learn
- Assessment OF Learning (Summative)
- Select and Sort Students
- Winners and Losers
- Focus on Teaching

New Mission
- Every Student *WILL* learn
- Assessment FOR Learning (Formative)
- Pyramid of Intervention/RTI
- Failure is Not an Option
- Focus on Learning

Slide 80

A Shift in PLC Focus

- This is not a change of direction.
- **Interest-Based Professional Learning Communities** showed us what it takes to function as high performing teams and the positive outcomes that result from their efforts.

Slide 81

A Shift in PLC Focus – Continued . . .

• The PLC focus is **shifting to Curriculum Teams** that exhibit the
behaviors of high functioning Professional Learning Communities.
• Our expectation is for **another surge of growth in API/AYP** through
improved instructional practice, resulting in improved student
achievement.

Slide 82

**The Foundation of
Professional Learning Communities**

•Three Big Ideas
•Five Characteristics
•Four Corollary Questions

Slide 83

PLC – Three Big Ideas

- **1. Ensuring that students learn**
  - *Learning for all*
- **2. A Culture of Collaboration**
  - *Teamwork*
- **3. Focus on Results**
  - *Data-Driven Decisions*

Same as PDSA

Slide 84

Big Idea #1
Focus on Learning

- The ultimate purpose of schools is to ensure high levels of learning for **ALL** students.
- If this is true, then we will:
  - Clarify what each student is expected to learn
  - Monitor each student's learning on a timely basis
  - Create systems to ensure students receive support if they are not learning

Slide 85

> **Big Idea #2**
> **Collaborative Culture**
>
> "We can achieve our fundamental purpose of high
> levels of learning for all students only if we work
> together. We cultivate a collaborative culture
> through the development of
> high performing teams."
>
> –DuFour, DuFour and Eaker

Slide 86

> **Possible PLC Structures**
>
> - Course alike teams
> - Grade level teams
> - Vertical teams
> - Similar responsibility teams
>   - (Learning Supports, SDAIE)
> - Interdisciplinary teams
> - TOT – Site/District

Slide 87

Big Idea #3
Focus on Results

- We assess our effectiveness on the basis of results rather than intention.
- Individuals, teams, and schools seek relevant data and information and use that information to promote continuous improvement.
- What does the data tell us?

Slide 88

A Shift in Response

- Frequent common formative assessments to:
  - Inform student decisions
  - Assess frequently
  - Developed jointly by PLC teams
  - Collaborate on response to interventions
  - Monitor student proficiency
  - Respond when kids don't learn

158

Slide 89

Pyramid of Interventions

R T I
Response to Intervention
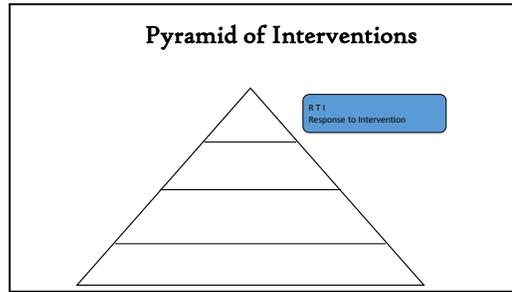
Slide 90

Five Characteristics

• Focus on Learning
• Collaborative Culture
• Collective Inquiry
• Action Oriented
• Results Oriented

Reference document

Slide 91

4 Critical Questions

Student Learning Expectations
SMART Goals

What do we want each ...
to learn, know, or be able to do?

What evidence do we have of the
learning?
Formative Assessment

How will we respond when some
students don't learn?

How will we respond to those who
have already learned?
Pyramid Of Interventions
&differentiated Instruction

Slide 92

What is Collaboration?

- A **systematic** process in which we work together,
  interdependently, to analyze and **impact**
  professional practice in order to improve our
  individual and collective results.

- DuFour, DuFour, & Eaker (2002)

Plc pg. 43
Wright Family

Slide 93

Collaboration . . .

- Requires time
- Requires commitment
- Requires trust
- Requires a mindset that collective intelligence is more powerful than individual thought

Slide 94

Question to Consider...

- The most critical question to consider when reflecting on the collaboration in our school is not, "Do we collaborate?"
- The far more important question is, "What do we collaborate about?"

Slide 95

Learning by Doing

• Capacity building… is not just workshops and professional development for all. It is the daily habit of working together, and you can't learn this from a workshop or course. You need to learn it by doing it and having mechanisms for getting better at it on purpose.

Plc pg. 59

Slide 96

Professional Learning Community Characteristics

• **Shared mission, vision, values, and goals**
• **Collective inquiry**
• **Collaborative teams**
• **Action orientation and experimentation**
• **Continuous improvement**
• **Results orientation**

Slide 97

The Four Pillars of a PLC

- **Mission**
- **Vision**
- **Values**
- **Goals**

•collective commitment to guiding principles that articulate what the people in the school believe and what they seek to create
•embedded in the hearts and minds of the people throughout the school

Slide 98

The Four Pillars of a PLC

- **Mission**
- Vision
- Values
- Goals

•collective commitment to guiding principles that articulate what the people in the school believe and what they seek to create
•embedded in the hearts and minds of the people throughout the school

Slide 99

MISSION

The **mission** of an organization is
found by answering the question:

"Why do we exist?"

Slide 100

MISSION

Fundamental Questions to Answer

1. What is it we expect all students to learn?

2. How will we know when they have learned it?

3. How will we respond when they don't learn?

4. How will we respond when they *already* know it?

Slide 101

The Four Pillars of a PLC

- Mission
- **Vision**
- Values
- Goals

•collective commitment to guiding principles that articulate what the people in the school believe and what they seek to create
•embedded in the hearts and minds of the people throughout the school

Slide 102

VISION

The **vision** of an organization is
found by answering the question:
*"What do we hope to become at
some point in the future?"*

Slide 103

VISION

Fundamental Questions to Answer

1. "What are the essentials for our students?"

2. "If we did an exemplary job with the
   essentials, what would that look like?"

Slide 104

VISION Statements

• Research-based and generated through collective
  inquiry
• Credible, with a focus on the essentials
• Used as a blueprint for improvement
• Widely shared through broad collaboration

Slide 105

The Four Pillars of a PLC

- Mission
- Vision
- **Values**
- Goals

•collective commitment to guiding principles that articulate what the people in the school believe and what they seek to create
•embedded in the hearts and minds of the people throughout the school

Slide 106

VALUES

• The **values** of an organization are found by answering the question:
  • *"How must we behave to create the school that will achieve our purpose?"*
• *Values are guides for day to day actions*

Slide 107

Professional Learning Community
VALUE Statements

_____

Represent a Fundamental Shift
- from *belief* to *behavior*
- from *thinking* to *doing*
- from *"we believe"* to *"we will"*

Slide 108

VALUES Statements

_____

- **Few in number**
- **Collaboratively and inclusively written with involvement or representation from all staff members**

168

Slide 109

The Four Pillars of a PLC

- Mission
- Vision
- Values
- **Goals**

•collective commitment to guiding principles that articulate what the people in the school believe and what they seek to create
•embedded in the hearts and minds of the people throughout the school

Slide 110

GOALS

The **goals** of an organization are
found by answering the question:
"What results do we seek and how will we know we are making progress?"

169

Slide 111

- Provide short-term priorities and define steps to take to achieve the "benchmarks"

- Foster both the results orientation of the PLC *and* the individual and collective accountability for achieving the results

- Are essential to the collaborative team process

Slide 112

The Four Pillars of a PLC
- Review -

Mission: *Clarifies Priorities/Sharpens Focus*

Vision: *Gives Direction*

Values: *Guide Behavior*

Goals: *Establish Priorities*

Slide 113

Professional Learning Community Characteristics

• Shared mission, vision, values, and goals

•**Collective inquiry**

• Collaborative teams
• Action orientation and experimentation
• Continuous improvement
• Results orientation

Slide 114

PLC's Require
COLLECTIVE INQUIRY

• When engaged in a process of *collective inquiry* we are asked to:
  • Question the status quo
  • Seek new methods
  • Test those methods
  • Reflect on the results

Slide 115

When engaged in PLC
COLLECTIVE INQUIRY

- The process of *searching* for the answers is more important than *having* an answer.

Slide 116

Professional Learning Community Characteristics

- Shared mission, vision, values, and goals
- Collective inquiry
- **Collaborative teams**
- Action orientation and experimentation
- Continuous improvement
- Results orientation

Slide 117

> *PLC's Require*
> **COLLABORATIVE TEAMS**
> _____
>
> • A systematic process in which we work together *interdependently* to analyze, adapt and improve professional practice in order to improve our *individual* and *collective* student achievement results.

Slide 118

> *Professional Learning Communities*
> **Assumptions about Collaboration**
> _____
>
> • **If schools are to improve, staff must develop the capacity to function as professional learning communities.**
> • **If schools are to function as professional learning communities, they must develop a collaborative culture.**

Slide 119

Professional Learning Communities
Assumptions about Collaboration

- **If schools are to develop a collaborative culture, they must overcome traditions of isolation.**
- **If schools are to overcome their traditions of isolation, teachers must learn to work in effective, high performing teams.**

Slide 120

Professional Learning Community Characteristics

- **Shared mission, vision, values, and goals**
- **Collective inquiry**
- **Collaborative teams**
- **Action orientation and experimentation**
- **Continuous improvement**
- **Results orientation**

Slide 121

Professional Learning Communities
Require Action Orientation and Experimentation

• "Research based DOING"

• Developing and testing hypotheses

• Developing, testing, evaluating theories

Slide 122

Professional Learning Communities
Action Orientation and Experimentation

• Having tolerance for and benefiting from
  results that aren't anticipated
• Seeing "failed experiments" as valued learning

Slide 123

> *Professional Learning Community*
> *Characteristics*
>
> ---
>
> • **Shared mission, vision, values, and goals**
> • **Collective inquiry**
> • **Collaborative teams**
> • **Action orientation and experimentation**
> • **Continuous improvement**
> • **Results orientation**

Slide 124

> *PLC's are Focused on*
> **CONTINUOUS IMPROVEMENT**
>
> ---
>
> **Each member of the organization (school) is engaged in considering key questions:**
> • *What is our fundamental purpose?*
> • *What do we hope to achieve?*
> • *What are our strategies for becoming better?*
> • *What criteria will we use to assess our improvement efforts?*

Slide 125

Professional Learning Community Characteristics

• Shared mission, vision, values, and goals
• Collective inquiry
• Collaborative teams
• Action orientation and experimentation
• Continuous improvement
• **Results orientation**

Slide 126

PLC's Have a
RESULTS ORIENTATION

Outcomes
not outputs
are the measure of success.

Slide 127

Professional Learning Community
  Characteristics

- Shared mission, vision, values, and goals
- Collective inquiry
- Collaborative teams
- Action orientation and experimentation
- Continuous improvement
- Results orientation

Slide 128

Professional Learning Community
Taking ACTION

- "Perhaps the greatest insight we have gained in our work
  with school districts across the continent is that schools that
  take the plunge and actually begin *doing* the work of a PLC
  develop their capacity to help students learn at high levels far
  more effectively than schools that spend years *preparing* to
  become PLCs through reading or even training."

                    - Richard DuFour, et. al.
                    Learning by Doing

Slide 129

Professional Learning Communities
Essential Questions

- How do they form?
- How do you know when the work is completed?
- How are they evaluated?
- How do you build in flexibility?
- How to you ensure a targeted focus?
- Who leads them?
- What skills do PLC leaders need?
- How do you determine if your school organization has the capacity to implement PLCs?

Slide 130

Debrief

- What did you accomplish today?
  - Forms
  - Norms
  - Time
  - Schedules
  - Logs/Agendas
  - Data
  - Groups

Slide 131

•Day 3

Slide 132

Overview

• Day 1
  • Training of the PLC leaders

• Day 2
  • PLC Membership Training

•Day 3
  •PLC Membership Training continued
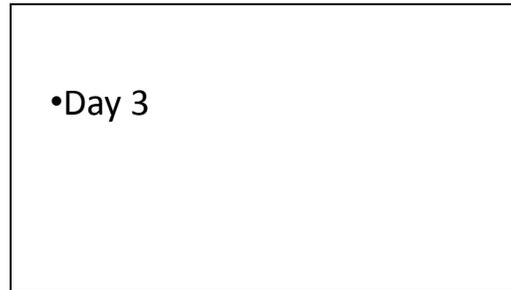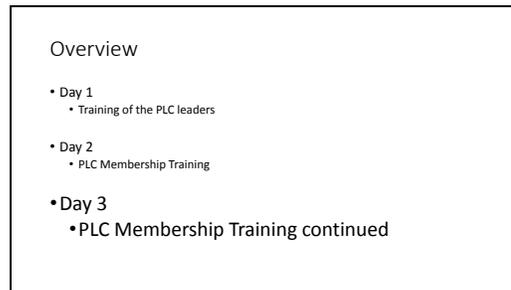
Slide 133

Goals and Outcomes

• Goals:
  • Provide a shared vision and collaboration for success with Smart Board
  • Provide support through self, peer mentoring, knowledge, and skill building.
• Outcomes:
  • Participating teachers will collaborate to gain insight into their strengths and weaknesses regarding integration of the Smart Board technology in their daily practice.
  • Educators will be able to share lesson plans and ideas with others in the professional learning community.

Goals
Provide a shared vision and collaboration for success with Smart Boards
Provide support through self, peer mentoring, knowledge and skills building.

Outcomes
Participating teachers will collaborate to gain insight into their strengths and weaknesses regarding integration of Smart Board tech

Slide 134

Professional Learning Communities

Creating powerful and effective learning for teachers and students

Slide 135

It is not the *strongest* of the species that survive, nor the most intelligent, but the one most responsive to change.
   - Charles Darwin

BQ peppy Lena

Slide 136

Education as it used to be . . . .

• We had data
• We shared data
• We complained
• We said the data was invalid
• We sighed
• We agreed that we needed to improve
• We went back and taught more of the same, in the same ways we always had!!

Slide 137

Suddenly we realized…
THIS IS NOT WORKING!!!

- No Real Improvement!!
- The Horse is Dead!!! Time to Dismount!!
- Common advice from knowledgeable horse trainers includes the adage,
- "When the horse dies…dismount."

Slide 138

Okay… That seems simple enough…

- However, we didn't always follow that advice! Instead, we chose from an array of other alternatives:
- Buying a stronger whip
- Switching riders
- Appointing a committee to study the horse
- Creating dead horse riding standards

Slide 139

We All Want to Experience…..

Success
Connection—Feeling a part of a
something bigger than ourselves
The feeling we're making a difference

But changing what we have always done is
troubling, hard work and literally hurts!!

Slide 140

Just maybe we need to …..

Clean out the barn and reorganize the stables
Develop a training course for riding a dead
horse
Get an advocate for the horse
Blame the horse's parents.

Slide 141

Let's begin with our School
Wide Goals….

Collaboratively developed
Measurable
Attainable but a stretch
All accountable for results
Results communicated to all stakeholders
Focus deeply on a few things – If you can't count them
on one hand, you're taking on too much.

Slide 142

How Can We Do This?

Create Professional Learning Communities
Regularly scheduled time and focus for
teachers to research, study, reflect, and plan
together

Slide 143

What is a Professional Learning Community?
A team with an intentional focus on learning which results in continuous school improvement

Slide 144

Professional Learning Communities can also be called a **Professional Study Group** or **Collaborative Planning Group**

Slide 145

Why Use a Professional Learning Community?

Focuses the site and individual Professional Learning on school improvement related to student performance
Job embedded Professional Learning has the greatest likelihood of changing the tradition and culture of an educational environment
Becomes manageable as collaborative teams become units of change
Can be accomplished with a limited budget
Does not allowing RESISTERS to stop necessary change
Provides a vehicle for proactively managing change, now and in the future!
Provides a proven method for real results

Slide 146

Keep in mind that with a Professional Learning Community Professional Development is......

Ongoing

Job embedded

Collaborative

Is evaluated to the confirmative (change of practice) level

Slide 147

A Professional Learning Community...

IS NOT a prescription

IS NOT a new program

IS NOT a meeting focused on administration
and management details

Slide 148

Attributes of a Professional Learning Community

Shared and Supportive Leadership

Shared Values and Vision

Collective Learning and Application of Learning

Supportive Conditions

Shared Personal Practice

Slide 149

Shared and Supportive Leadership

Principals support a collegial relationship with teachers, distribute leadership and decision-making, and promote and nurture leadership development among staff

Shared Values and Vision

An unwavering focus on student learning guides decisions about teaching and learning, and promotes accountability for actions.

Slide 150

Collective Learning and Application of Learning

People at all levels work collaboratively to solve problems and improve learning opportunities. Together they seek new knowledge and skills, as well as applying their new learning to their work.

Supportive Conditions

Physical conditions as well as personal and professional interactions support the work of school staff.

Slide 151

Shared Personal Practice

Teacher interaction occurs within a formalized structure to provide encouragement and feedback on instructional practices in an atmosphere of mutual respect and trust.

Slide 152

It is easy to begin…..

Determine an area of study
Book Study
Data analysis
Review of student work
Review of teacher work
Curriculum alignment

Professional Learning Team formats
Whole school
Grade level teams
Content area teams
Interest-based teams

Slide 153

In order for Professional Learning Communities
to be successfully developed and implemented
they need to respond to the following
questions:

How do they form?
How do you know when the work is completed?
How are they evaluated?
How do you build in flexibility?
How to you ensure a targeted focus?
Who leads them?
What skills do PLC leaders need?
How do you determine if your school organization has the
capacity to implement PLCs?

Slide 154

Plan thoughtfully and take action. Monitor
carefully the health and vitality of your PLCs.
Support PLC leaders and meet with them
regularly. Not all PLCs will be equally effective.
They can be fragile. Deep implementation of
professional learning communities constitutes a
significant culture shift for most
schools/districts. Recognize this!
Shifting culture is perhaps the most difficult
organizational challenge there is.

Slide 155

The challenge is significant.

The risks of taking action may result in
improved practice, improved educational
services and improved student achievement.

The risks of inactivity may be disengaged and
disillusioned students. This simply in not an
option.

Slide 156

forms

• Review of the forms to be completed for each of the PLC meetings
    • Results from the Teacher Smart Board Technology Survey
    • Professional Learning Community Planning Tool
    • First PLC Meeting Agenda

Slide 157

Collaborative Time: Team Meetings

Work on:
- Agenda and log format
- Norms
- Calendar Map of Activities
- Data Options
- Finding Time for PLCs to Meet
- Get your questions answered
- Making this your own

Slide 158

Debrief

- What did you accomplish today?
  - Forms
  - Norms
  - Time
  - Schedules
  - Logs/Agendas
  - Data
  - Groups

Slide 159

Closing

Next Meeting Date:
_____

Please email PLC team leaders if you have
 topics for the agenda!

Slide 160

References
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  from http://go.solution-
  tree.com/PLCbookshttp://quality.cr.k12.ia.us/PLC/indexPLC.html

Day One: Training of the PLC Leaders

The first day of the training will begin with an overview of the training, and the

goals and objectives for the professional development (PPT slides 1-5). The next slide is

an introduction activity used for two purposes. First, as a way for the group to introduce

themselves and as an icebreaker to help ease any tensions in the room. The next slides (7-

13) provide a definition a PLC and gives the background information of a PLC (DuFour,

DuFour, Eaker, & Manny, 2010). Slides 14-18 gives an overview of how adults learn. The next few slides (19-28) explain the importance of using the professional learning community as a model for professional development. After, group dynamics are described and discussed (slides 28-34). Slide 35 is an activity. This activity, the PLC team leaders are asked to reflect on their strength and formally write down those strengths. Additionally, team leaders are being asked to be proactive and have them write down their responsibilities. The next few slides (36-40) discuss and explores with the group what really happens when collaboration occur. With slides 41-43 the roles of the PLC leaders are explained, and discussed. Slide 44 is another activity. This activity requires PLC team leaders to reflect on the roles of a teacher leader. Then as a table group discuss the self-assessment vs, how others see you. Finally, a few minutes are given to allow everyone a chance to write down what areas need work. The next grouping of slides (45-50) discuss the topic of focused learning and collaborative cultures. Slide 51 is another activity. This activity helps PLC team leaders set goals for their teams. The next slide explains the data templates and charts. Finally, slide 53 is a debriefing of the learning of the day. With this slide, a summation of the day's activities are given in relation to the goals and objectives. In addition, a few minutes are given to the group for writing down what they have accomplished today and a focus for PLC team leaders for the school year.

Day 2: PLC Membership Training

This day of training is designed for anyone who is interested in learning more about professional learning communities. Participants will be given the opportunity to join a PLC group. The training begins with an overview of the training and a review of the goals and objectives (PPT slides 55-56). In the next several slides (57-72) a discussion of the function of the PLC as well as the characteristics of a PLC are discussed and reviewed. The next group of slide (72-76) discuss the topic learning requires work. Slide 77 is an activity. This activity is the Teacher Smart Board Technology Survey. The survey teachers are to answer a series of questions related to Smart Board usage. This survey will be tallied and used as a formal assessment for the overall success of the PLC project. In the next grouping of slides (78-82) discuss the PLC with a focus on curriculum teams. Slides 83-89 discuss the big idea behind having a successful PLC team along with the shifts in change that occur. In the next group of slides (90-96), the group will discuss the characteristics of a PLC and the importance of collaboration. Continuing the training with slides 97-112, the group discusses the impact of the four pillars of a PLC. With this section, groups will create a mission, vision, values and goals wanting to achieve this school year. The next set of slides discuss the characteristics of PLC (slides113-129). Slide 130 is a debriefing of the days training. At this time, all training will be reviewed in terms of the goals and objectives. The group will be asked to reflect of the days training.

Day 3: PLC Membership Training Continued

This days training begins with an overview of the training and the goals and objectives. Additionally, a summary of the previous days training will also begin this training. The

training continues with a look at the professional learning communities as it relates to teachers and students (slides 134-140). Slide 141 discusses the school wide goals. Slides 142-155 discuss the creation of the PLC. The next slide discussion of the forms are discussed and examples shown. Slide 157 is the collaborative team meetings. With this slide, a breakdown of all the teams will be shown all participants have been placed with a team and a team leader. The individual teams will move to different areas and conduct their first team meeting. After 2 hours, all of the participants will gather back into the main meeting room. The training will then continue with a debriefing of the entire PLC training (slide 158). The participants will be asked to reflect on the PLC as a model to improve Smart Board implementation as well as write any question they may have the PLC team leaders to address. The final slide in the presentation will have the groups write down their meeting dates.

Evaluation Plan

Teachers are expected to participate and implement strategies learned through the membership in a professional learning community. Teacher are expected to take an active role in their practice, which included a reflection on the effectiveness of Smart Board technology usage. Project evaluation will be done in two stages using two different methods. The summative assessment results will be collected at the end of the PLC meeting monthly. The tool used to collect this information will be the Professional Learning Committee Planning Tool. A sample form is included in this document. The

formative assessment will be collected at the beginning of the year and again at the end of

the year using the Teacher Technology Survey. The survey is included in the document.

Outcomes data from both formative and summative measures will be compiled to

help leaders in making the professional development learning communities more

efficient. Using this method will provide the staff with well-informed teachers' and

needed improvements.

Teacher Smart Board Technology Survey

How frequently do you use your Smart Board
- ○ Daily
- ○ 3-4 days a week
- ○ 1-2 days a week
- ○ Less than one day

Describe your comfort level using the Smart Board
- ○ Novice
- ○ Basic
- ○ Intermediate
- ○ Advance
- ○ Expert

Descibe how you use your Smart Board

	not yet	aware of	learning	capable and confident	could teach others
Project lesson, websites, etc	○	○	○	○	○
Create lessons using Smart Notebook	○	○	○	○	○
Record students responses	○	○	○	○	○
Engage students' interactively (games, activities)	○	○	○	○	○
Provide time for students' createion or presentation	○	○	○	○	○

How confident are you.....

	not yet	aware of	learning	capable and confident	could teach others
Setting up the Smart Board	○	○	○	○	○
Connecting to the computer	○	○	○	○	○
Orienting the board	○	○	○	○	○
Writing with digital ink	○	○	○	○	○
using the onscreen keyboard	○	○	○	○	○
Open/save Notebook files	○	○	○	○	○
Open/save PPT files	○	○	○	○	○
Navigation from the board	○	○	○	○	○
Adding text/pages/pictures/shapes in Notebook	○	○	○	○	○
Adding text/pages/pictures/shapes in PPT	○	○	○	○	○
Deleting /undo/redo Notebook files	○	○	○	○	○
Deleting/undo/redo PPT files	○	○	○	○	○
Using Screen capture	○	○	○	○	○

Using video capture	○	○	○	○	○
Search gallery	○	○	○	○	○
Use screen shade	○	○	○	○	○
Use magnifier	○	○	○	○	○
Use spotlight	○	○	○	○	○
Reside/move images or text	○	○	○	○	○
Using magic pen and shape pen	○	○	○	○	○
Creating table in notebook and or PPT	○	○	○	○	○
Clone objects	○	○	○	○	○
Animate objects	○	○	○	○	○
Pin page/use dual page	○	○	○	○	○
Printing/exporting Notebook files and or PPT files	○	○	○	○	○
Use background and themes in Notebook files and or PPT files	○	○	○	○	○
Create interactive activities in Notebook files and or PPT files	○	○	○	○	○
Customize tool bars	○	○	○	○	○

What still eludes you about the Smart Board

Submit

Professional Learning Community Planning Tool

Date Grade Team members Time		
Reality: Currently _____members of the PLC team are using _____(aspect of Smart Board) FOCUS: By _____(date) _____members of the PLC team will use _____(aspect of Smart Board) effectively in daily lessons		
Goal: What needs Improving? 1. How does it affect classroom? 2. How does this align with standards and objectives?		
Strategies and Steps		
Next steps (becomes agenda for next meeting)		
Follow up questions:		

First PLC Meeting Agenda

Purpose: To ensure all teacher are using the Smart Board effectively

1. Distribute/Collect the survey

2. Discuss Expectations

    a. What is a successful group?

    b. How can we be sure we are successful?

3. Focus topic/Planning tool

    a. Goal: What needs improving?

        i. How does it affect classroom?

        ii. How does this align with standards and objectives

    b. The plan to achieve this goal?

4. Next steps

    a.

    b.

Summary

This professional learning community professional development was created to meet the needs of the teachers at the local school. Other schools will be able to use this model with a little modification to meet the specific needs of the school. The following goals have been presented: (1) Provide a shared vision and collaboration for success with Smart Board technology; (2) Provide support through self, peer monitored, knowledge and skill building. The following outcomes have also been presented: (1) Participant teachers will collaborate to gain insight into strengths and weaknesses regarding integration of Smart Board technology into daily practice. (2) Educators will be able to share lessons and ideas with other in a professional learning community.

Using the timeline provided in the training should meet most requirements of a professional development training. The presenter may need to change the schedule to fit the times allotted but the individual district. The PowerPoint slides included are designed to help the presenter when conducting the training. All of the slides included creates the 3-day training with all of the necessary components to fulfill the goals and outcome stated in this project study. The evaluation methods provided in this training also helps the PLC team make data-driven decisions based on the needs of the participants.

For all stakeholders, the long-term benefits of the professional learning community professional development are designed to promote a positive interaction among colleagues. Additionally, this plan will promote continual life-long learning among the educators within the professional learning community. The sharing of lessons and ideas provides educators with yet another method to support the integration of Smart Board technologies into successful teaching and learning.

References

Erkens, Cassandra, et. al. <u>The Collaborative Teacher</u>. Bloomington: Solution Tree, 2008.

    (p. 33-54)

Hord, S. M., & Southwest Educational Development Lab., A. X. (1997). *Professional*

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www.allthingsassessment.info

Appendix B: Letter of Cooperation from a Community Research Partner (District)

Letter of Cooperation from a Community Research Partner (District)

{Insert information here]

Date

Dear Student,

Based on my review of your research proposal, I give permission for you to conduct the study entitled- _____ within the _____. As part of this study, I authorize you to complete a convenience sampling of teachers at school. Use already created instruments of teacher efficacy via internet website. Also, use member checking to complete the project. Individuals' participation will be voluntary and at their own discretion.

We understand that our organization's responsibilities include allowing teacher to answer interview questions and answer online survey questions. Additionally allow teachers to submit artifacts to support the project. We reserve the right to withdraw from the study at any time if our circumstances change.

I confirm that I am authorized to approve research in this setting.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the research team without permission from the Walden University IRB.

Sincerely,

Authorization Official

Contact Information

Walden University policy on electronic signatures: An electronic signature is just as valid as a written signature as long as both parties have agreed to conduct the transaction electronically. Electronic signatures are regulated by the Uniform Electronic Transactions Act. Electronic signatures are only valid when the signer is either (a) the sender of the email, or (b) copied on the email containing the signed document. Legally an "electronic signature" can be the person's typed name, their email address, or any other identifying marker. Walden University staff verify any electronic signatures that do not originate from a password-protected source (i.e., an email address officially on file with Walden).

Appendix C: Letter of Cooperation from a Community Research Partner (School)

Letter of Cooperation from a Community Research Partner (School)

[Insert school information]
Date
Dear Student,
Based on my review of your research proposal, I give permission for you to conduct the study entitled- _____ within the_____. As part of this study, I authorize you to complete a convenience sampling of teachers at school. Use already created instruments of teacher efficacy. Also, use member checking to complete the project. Individuals' participation will be voluntary and at their own discretion.

We understand that our organization's responsibilities include allowing teacher to answer interview questions and answer online survey questions. Additionally allow teachers to submit artifacts to support the project. We reserve the right to withdraw from the study at any time if our circumstances change.

I confirm that I am authorized to approve research in this setting.

I understand that the data collected will remain entirely confidential and may not be provided to anyone outside of the research team without permission from the Walden University IRB.

Sincerely,
Authorization Official
Contact Information

Walden University policy on electronic signatures: An electronic signature is just as valid as a written signature as long as both parties have agreed to conduct the transaction electronically. Electronic signatures are regulated by the Uniform Electronic Transactions Act. Electronic signatures are only valid when the signer is either (a) the sender of the email, or (b) copied on the email containing the signed document. Legally an "electronic signature" can be the person's typed name, their email address, or any other identifying marker. Walden University staff verify any electronic signatures that do not originate from a password-protected source (i.e., an email address officially on file with Walden).

Appendix D: Consent Form (Participant)

CONSENT FORM (Participant)

You are invited to take part in a research study of Elizabeth Ann Lewis Pourciau. This research project involve finding more about the uses of Smart Boards in Middle School Classrooms. The researcher is inviting middle school grade teachers to be in the study. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

This study is being conducted by a researcher named Elizabeth Ann Lewis Pourciau, who is a doctoral student at Walden University. You may already know the researcher as a teacher but this study is separate from that role.

Background Information:
The purpose of this study is to identify the challenges and barriers teacher face when trying to use Smart Boards into the daily routines of teaching.

Procedures:
If you agree to be in this study, you will be asked to:
- Sign a consent form (5 min)
- Roles for possible participants (participants may choose 1 or more of the following)
    o Complete Online Teacher Efficacy Survey – Link will be provided upon agreement to participate. (20-30 min)
    o Complete Online Teacher Confidence Survey-- Link will be provided upon agreement to participate. 20-30 min)
    o Complete Online Sense of Efficacy Scale survey-- Link will be provided upon agreement to participate. (20-30 min)
    o Participate in Interview questions (45-55 min)
    o Participate Member Checking (member checking is review and validation of material for checking accuracy)(40-50 min)

Here are some sample questions:
- What is one strength and one weakness of the Smart Board/ IWB as an instructional tool?
- What types of activities are you using with your Smart Board/IWB?
- What do you need to integrate whiteboard technology into your lessons more often?

Voluntary Nature of the Study:
This study is voluntary. Everyone will respect your decision of whether or not you choose to be in the study. Declining or discontinuing will not negatively impact the participants' relationship with the researcher. No one at Martha Vinyard Elementary School or Tangipahoa Parish School Systems will treat you differently if you decide not to be in the study. If you decide to join the study now, you can still change your mind later. You may stop at any time. Online survey question will allow skip of questions.

Risks and Benefits of Being in the Study:
Being in this type of study involves some risk of the minor discomforts that can be encountered in daily life, such as fatigue, stress, or becoming upset. Being in this study would not pose risk to your safety or wellbeing.

The benefits of this study are to obtain a better understanding of the usages for the Smart Board/IWB technology in teachers' classrooms.
Payment:
There will be no form of payment for participation in this research.

Privacy:
Any information you provide will be kept confidential. The researcher will not use your personal information for any purposes outside of this research project. Also, the researcher will not include your name or anything else that could identify you in the study reports. Data will be kept secure by Elizabeth Pourciau on a personal laptop that is secured by password. Additionally all data will be copied to a separate jump drive dedicated to this project study. This and all other material will be kept in a locked file cabinet that only she has access to the key. Data will be kept for a period of at least 5 years, as required by the university.

Contacts and Questions:
You may ask any questions you have now. Or if you have questions later, you may contact the researcher via cell phone 985-507-4915. If you want to talk privately about your rights as a participant, you can call Dr. Leilani Endicott. She is the Walden University representative who can discuss this with you. Her phone number is 612-312-1210. Walden University's approval number for this study is 01-14-14-0189060 and it expires on **<u>January 13, 2015.</u>**

The researcher will give you a copy of this form to keep. (For face-to-face research)

Statement of Consent:

I have read the above information and I feel I understand the study well enough to make a decision about my involvement. By signing below, I understand that I am agreeing to the terms described above.

Printed Name of Participant

_____

Date of consent

_____

Participant's Signature

_____

Researcher's Signature

_____

Appendix E: Email permission

Re: Permission to use surveys. - Message (HTML)

FILE   MESSAGE

Ignore | Delete | Reply Reply Forward More | Meeting | hold Team Email Reply & Delete | To Manager Done Create New | Move | Rules OneNote Actions | Mark Unread | Categorize | Follow Up | Translate | Find Related Select | Zoom

Delete   Respond   Quick Steps   Move   Tags   Editing   Zoom
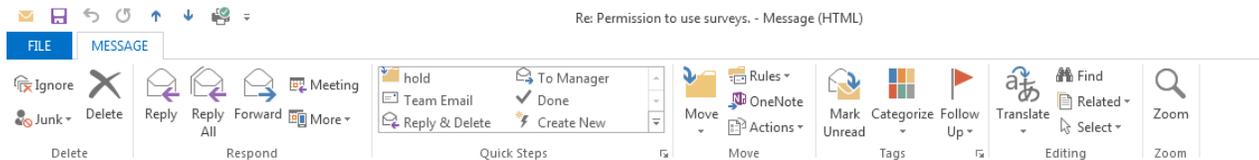
Mon 10/28/2013 2:45 PM

Anita Woolfolk Hoy <anitahoy@mac.com>

Re: Permission to use surveys.

To   Elizabeth Pourciau

You forwarded this message on 10/29/2013 7:18 AM.

You are welcome to use those instruments in your research.

Anita

Anita Woolfolk Hoy
Professor Emerita
The Ohio State University
3687 Pebble Creek Circle, Unit 102
Naples, FL 34108
anitahoy@mac.com
315-640-2017

On Oct 28, 2013, at 2:20 PM, Elizabeth Pourciau <ELIZABETH.POURCIAU@tangischools.org> wrote:

Dr. Hoy,

I am writing you to get permission to use the following surveys in my Project Study for my dissertation.

Teacher Confidence Scale
Teacher Efficacy
Teacher's Sense of Efficacy Scale

Thank you very much for you time and efforts.

Elizabeth Pourciau

Appendix F: Letter to use the TESES

Letter to use the Teachers' Sense of Efficacy Scale

ANITA WOOLFOLK HOY, PH.D.   **PROFESSOR**
PSYCHOLOGICAL
STUDIES IN
EDUCATION

Dear

You have my permission to use the *Teachers' Sense of Efficacy Scale* in your research.
A copy of both the long and short forms of the instrument as well as scoring
instructions can be found at:

http://www.coe.ohio-state.edu/ahoy/researchinstruments.htm

Best wishes in your work,

Anita Woolfolk Hoy

Anita
Woolfolk
Hoy, Ph.D.
Professor

COLLEGE OF EDUCATION
29 WEST WOODRUFF AVENUE
COLUMBUS, OHIO 43210-1177
HOY.17@OSU.EDU

PHONE   614-292-3774
WWW.COE.OHIO-STATE.EDU/AHOY   FAX 614-292-7900

Appendix G: Teachers Confidence Scale

Teacher Confidence Scale
ID Code: (Mother's month and day of birth and her initials)
Undergrad degree_____ Institution_____ Major_____ Minor_____
Please list the High School Advanced Placement classes you took, if any_____

Teacher Confidence Scale

Instructions: Please indicate your opinion about each statement by circling the appropriate response at the right of the statement. There are no right or wrong answers. We are interested in your frank opinions. Your responses are confidential.
Key: 1=Strong Disagree   2= Moderately Disagree   3= Disagree slightly more than agree
 4= Agree slightly more than disagree   5= Moderately Agree   6= Strongly Agree

I am confident in my ability to   (Disagree---- $\rightarrow$ Agree)
- locate resources for preparing mathematics lessons   1   2   3   4   5   6
- teach science as a co-inquirer with students   1   2   3   4   5   6
- use journals in teaching   1   2   3   4   5   6
- construct a web   1   2   3   4   5   6
- integrate language arts teaching   1   2   3   4   5   6
- use a variety of assessments techniques   1   2   3   4   5   6
- determine the academic needs of my students   1   2   3   4   5   6
- select appropriate literature for thematic teaching   1   2   3   4   5   6
- evaluate students' work   1   2   3   4   5   6
- teach effectively in an urban school   1   2   3   4   5   6
- facilitate class discussion   1   2   3   4   5   6
- establish a feeling of community in my classes   1   2   3   4   5   6
- incorporate deferment activities and curricula into science teaching   1   2   3   4   5   6
- develop an assessment rubric   1   2   3   4   5   6
- create integrated lesson and units   1   2   3   4   5   6
- construct student –centered activities   1   2   3   4   5   6
- teach basic concepts of fractions   1   2   3   4   5   6
- manage classrooms   1   2   3   4   5   6
- teach algebra   1   2   3   4   5   6
- use cooperative learning approaches   1   2   3   4   5   6
- facilitate students' communication about mathematics (through journals, discussions, etc.)   1 2 3 4 5 6
- explain the meaning of standardized test scores to students and parents   1   2   3   4   5   6
- implement a variety of science teaching strategies that incorporate inquiry-based learning   1 2 3 4 5 6
- develop number sense in children   1   2   3   4   5   6
- build learning in science on children's intuitive understandings   1   2   3   4   5   6
- connect mathematics to literature   1   2   3   4   5   6
- analyze my teaching in an objective and ethical manner   1   2   3   4   5   6
- give students concrete experiences in learning mathematics   1   2   3   4   5   6
- use media to support teaching and learning   1   2   3   4   5   6

- o   evaluate software for teaching and learning 1   2   3   4   5   6
- o   Understand that impact of cultural diversity on classroom content, context, & instructional strategies   1   2   3   4   5   6
- o   Define the social in social studies 1   2   3   4   5   6

Appendix H: Teacher Efficacy Scale

Teacher Efficacy[1]

A number of statements about organizations, people and teaching are presented below. The purpose is to gather information regarding the actual attitudes of educators concerning these statements. There are no correct or incorrect answers. We are interested only in your frank opinions. Your responses will remain confidential.

Instructions: Please indicate your personal opinion about each statement by circling the appropriate response at the right of each statement.

Key: 1=Strongly Agree 2= Moderatly Agree 3= Agree slightly more than disagree 4= Disagree 5= Moderately Disagree 6= Strongly Disagree

1. When a student does better than usually, many times it is because I exert a little extra effort. 1 2 3 4 5 6
2. The hours in my class have little influence on students compared to the influence 1 2 3 4 5 6
3. The amount a student can learn is primarily related to family background. 1 2 3 4 5 6
4. If students aren't disciplined at home, they aren't likely to accept any discipline. 1 2 3 4 5 6
5. I have enough training to deal with almost any learning problem. 1 2 3 4 5 6
6. When a student is having difficulty with an assignment, I am usually able to adjust it his/her level. 1 2 3 4 5 6
7. When a student gets a better grade that he/she usually gets, it is usually because I found better ways of teaching that student. 1 2 3 4 5 6
8. When I try, I can get through to most difficult students. 1 2 3 4 5 6
9. A teacher is very limited in what he/she can achieve because a student's home environment large influence on his/her achievement. 1 2 3 4 5 6
10. Teachers are not a very powerful influence on student achievement when all factors are considered. 1 2 3 4 5 6
11. When the grades of my students improve, it is usually because I found more effective approaches. 1 2 3 4 5 6
12. If a student masters a new concept quickly, this might be because I know the necessary steps in teaching that concept. 1 2 3 4 5 6
13. If parents would do more for their children, I could do more. 1 2 3 4 5 6
14. IF a student did not remember information, I gave in a previous lesson; I would know how to increase his/her retention I the next lesson. 1 2 3 4 5 6
15. The influences of a student's home experiences can be overcome by good teaching 1 2 3 4 5 6
16. IF a student in my class becomes disruptive and noisy. I feel assured that I know some techniques to redirect him/her quickly. 1 2 3 4 5 6
17. Even a teacher with good teaching abilities may not reach many students 1 2 3 4 5 6
18. If one of my students couldn't do a class assignment, I would be able to accurately assess whether the assignment used was the correct level of difficulty. 1 2 3 4 5 6
19. If I really try hard, I can get through to even the most difficult or unmotivated students 1 2 3 4 5 6
20. When it comes right down to it, a teacher really can't do much because most of a student's motivation and performance depends on his or her home environment. 1 2 3 4 5 6
21. Some students need to be placed in slower groups so they are not subjected to unrealistic expectations. 1 2 3 4 5 6
22. My teacher training program and/or experiences has given me the necessary skills to be an effective teacher. 1 2 3 4 5 6

---

[1] From Woolfolk, A.E. & Hoy, W.K. (1990). Prospective teacher's sense of efficacy and beliefs about control. *Journal of Educational Psychology, 82*, 81-91. Originally based on the Teacher Efficacy Scale developed by S.

Gibson & M. Dembo (1984). Teacher Efficacy: a construct validation. *Journal of Educational Psychology, 76,* 569-582.

Appendix I: Teachers' Sense of Efficacy Scale 1 (long)

Teachers' Sense of Efficacy Scale1 (long form)

Teacher Beliefs   **How much can you do?**

		Nothing	Very Little	Some	Quite a Bit	A Great Deal
	Directions: This questionnaire is designed to help us gain a better understanding of the kinds of things that create difficulties for teachers in their school activity. Please indicate your opinion about each of the statements below. Your answers are confidential					
1	How much can you do to get through to the most difficulty students?	(1) (2)	(3) (4)	(5) (6)	(7) (8)	(9)
2	How much can you do to help your students think critically?	(1) (2)	(3) (4)	(5) (6)	(7) (8)	(9)
3	How much can you do to control disruptive behavior in the classroom?	(1) (2)	(3) (4)	(5) (6)	(7) (8)	(9)
4	How much can you do to motivate students who show low interest in schoolwork?	(1) (2)	(3) (4)	(5) (6)	(7) (8)	(9)
5	To what extent can you make your expectations clear about student behavior?	(1) (2)	(3) (4)	(5) (6)	(7) (8)	(9)
6	How much can you do to get the students to believe they can do well I school work?	(1) (2)	(3) (4)	(5) (6)	(7) (8)	(9)
7	How well can you respond to difficult question from your students?	(1) (2)	(3) (4)	(5) (6)	(7) (8)	(9)
8	How well can you establish routines to keep activities running smoothly?	(1) (2)	(3) (4)	(5) (6)	(7) (8)	(9)
9	How much can you do to help your student's value learning?	(1) (2)	(3) (4)	(5) (6)	(7) (8)	(9)
10	How much can you gage student comprehension of what you have taught?	(1) (2)	(3) (4)	(5) (6)	(7) (8)	(9)
11	To what extent can you craft good questions for your students?	(1) (2)	(3) (4)	(5) (6)	(7) (8)	(9)
12	How much can you do to foster student's creativity?	(1) (2)	(3) (4)	(5) (6)	(7) (8)	(9)
13	How much can you do to get children to follow classroom rules?	(1) (2)	(3) (4)	(5) (6)	(7) (8)	(9)
14	How much can you do to improve the understanding of a student who is failing?	(1) (2)	(3) (4)	(5) (6)	(7) (8)	(9)
15	How much can you do to calm a student who is disruptive or noisy?	(1) (2)	(3) (4)	(5) (6)	(7) (8)	(9)
16	How well can you establish a classroom management system with each group of students?	(1) (2)	(3) (4)	(5) (6)	(7) (8)	(9)
17	How much can you do to adjust you lessons to the proper level for individual students?	(1) (2)	(3) (4)	(5) (6)	(7) (8)	(9)
18	How much can you use a variety of assessments strategies?	(1) (2)	(3) (4)	(5) (6)	(7) (8)	(9)
19	How well can you keep a few problem students from ruining an entire lesson?	(1) (2)	(3) (4)	(5) (6)	(7) (8)	(9)
20	To what extent can you provide an alternative explanation or example when students are confused?	(1) (2)	(3) (4)	(5) (6)	(7) (8)	(9)
21	How well can you respond to defiant students?	(1) (2)	(3) (4)	(5) (6)	(7) (8)	(9)

22 How much can you assist families in helping their children do well in school?

(1) (2)   (3) (4)   (5) (6)   (7) (8)   (9)

23 How well can you implement alternative strategies in your classroom?

(1) (2)   (3) (4)   (5) (6)   (7) (8)   (9)

24 How well can you provide appropriate challenges for very capable students?

(1) (2)   (3) (4)   (5) (6)   (7) (8)   (9)

Appendix J: Pilot/Interview Questions

Pilot/Interview Questions

1. What is one strength and one weakness of the Smart Board/IWB as an instructional tool?
2. What specifically is an observer likely to see when looking at the use of instructional technology?
3. How would you describe your professional development training for integrating IWB capabilities into you teaching?
4. What do teachers identify as the challenges related to the use of interactive whiteboards or Smart Board Technology in daily classroom activities?
5. How has having a Smart Board in the classroom affected lesson planning?
6. Using the Smart Board/IWB for teaching lesson objectives, what percentage of the time daily do you use the board? The students use the board.
7. What barriers are preventing teachers from using the interactive white board (IWBs) to its fullest potential?
8. Which feature would you like to know more about so that you might use them in your lesson?
9. What are the challenges of using the Smart Board/IWB as an instructional tool in the classroom?
10. Describe one successful lesson using the Smart Board/IWB and what do you believe made it successful?
11. Describe one unsuccessful lesson using the Smart Board/IWB and what do you believe made it unsuccessful?
12. How important is the use of the Smart Board/IWB in daily lesson activities for teaching and learning?
13. What types of activities are you using with your Smart Board/IWB?
14. In what ways do you feel the Smart Board/IWB changes lesson dynamics?
15. What are you biggest frustrations of the Smart Board/IWB?
16. What is the biggest hurdle you face as a teacher using the Smart Board/IWBs?
17. How do you see Smart Board/IWB technology being used in the future if classroom teaching and learning?
18. What techniques do you use to keep students actively involved during a lesson?
19. What supports do teachers need to integrate Smart Board technology into instruction in daily classroom activities?

20. How does classroom management change when you are using technology?
21. What types of frustrations or barriers do you experience in trying to use technology in your teaching?
22. How do you try to overcome these frustrations?
23. How is technology changing the way you teach?
24. What do you need to integrate whiteboard technology into your lesson more often?

Appendix K: Certification of Completion (NIH)

Certificate of Completion

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that Elizabeth Pourciau successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 09/11/2011

Certification Number: 744920

Curriculum Vitae

Professional Profile
Eager to bring students, faculty, staff, and others into the twenty-first century using a unique combination of education experience coupled with 15 years teaching experience.
- Working toward earning Doctorate Degree in Teaching and Learning
- Have more than 50 hours additional to my Master's Degree
- Hold Master's Degree in Education
- Hold Bachelor's Degree in Elementary Education
- Dedicated to serve as a future Technology Facilitator
- Dedicated to serve as a future Technology Leader
- Dedicated to serve as a future school leader
- Dedicated to enthusiastic and dynamic teaching as a means of creating and nurturing a lifelong love of knowledge in children
- Experienced in use of the Internet and educational software
- Experience in repairing computers (hardware and software) and the network problems.
- Education

Tangipahoa Parish Leadership Academy, 2013
    Tangipahoa Paris School System, Amite, LA, completed

M. ED. +30, 2011 Teaching and Learning
    Walden University, Minneapolis, MN NCATE approved

Tangipahoa Parish Leadership Academy, 2009
    Tangipahoa Paris School System, Amite, LA, completed

M.ED., 2003 Educational Technology, Administration and Supervision
    Southeastern Louisiana University, Hammond, LA NCATE Approved

B.A., 1999 Elementary Education,
    Southeastern La University, Hammond, LA NCATE Approved

General Areas of Certification
- Certificate Number A421163
- EDL 1 Certificate 8/6/2014
- 2013. Executive Leadership Academy. 2012-2013 Tangipahoa parish School System Executive Leadership Training.
- 2009. Leadership Academy. 2008-2009 Tangipahoa Parish School System Leadership Academy Training.

- Computer Literacy, Grade(s): 1-12, 3/1/2006
- Supervisor of Student Teaching Grade(s): 1-12, 2/17/2004
- Educational Technology Leader, Grade(s): K-12, 2/17/2004
- Educational Technology Facilitator, Grade(s): 1-12, 2/17/2004
- Valid for Life for Continuous Service 10/13/2003
- Elementary Grade(s): 1-8, 6/24/1999
- Lower Elementary Grade(s): 1-4, 6/24/1999

Computer Skills

- Work both with PC and MAC computers
- Knowledge of the Internet and Intranet
- System installations and repairs
- Work with Microsoft Office XP, 2003, 2007, 2010 and 2013
- Worked with creating Web Pages
- Created video production
- Experience digital and digital video camera/camcorders

Workshops/Classes –2005- present

- EAGLE Training 10/30/2014
- Technology Refinement for Teachers 10/14/2014
- Crisis Awareness Training 10/13/2014
- Getting started with Typing Agent 4.0 (Webnair) 8/5/2014
- LearnZillion 8/5/2014
- EAGLE Training 2/27/2014
- SOS For 2-8 ELA and Math Teachers (websites to teach Common Core) 1/6/2014
- Student Statistics 8/8/2013
- The Whatever Zone Bullying and Suicide Prevention 8/8/2013
- Leader in Me- The 7 Habits of Highly Effective People –7/15/2013-7/17/2013
- BayouBUG- Region 2 ST. Tammany School Board 6/7/2013
- Technology SLAM- Region 2 WBRPSB 3/9/2013
- Glogster EDU 1/30/2013
- Teacher Strategy Showcase 1/4/2013
- SMART Response Clickers 11/15/2012
- SMARTBoard #4 Silly Rabbit, SMART Boards are for kids 10/08/2012
- Prezi in the Classroom BB class 10/1/2012
- SMARTBoard #3- One Size Fits All 10/1/2012
- Fraction Nation 9/27/2012
- FASTTMath Next Generation Implementation 9/27/2012

- Schoolwires Teacher Websites #1 9/24/2012
- EAGLE Training 9/19/2012
- SMART Notebook 11: New Layout and Features 9/06/2012
- Skills Tutor workshop 8/27/2012
- TAP Rubric Implementation Strategies for Teachers 8/7/2012
- E2020 Virtual Learning Opportunities for GRADES 6-12 8/2/2012
- NETT Conference-Northshore Excellence in Teaching with Technology Conference- 6/20/2012
- E 20/20 Virtual Learning General Awareness Training 5/22/2012
- TAP Teacher Instructional Rubric Training 5/22/2012
- Common Sore State Standards(CCSS) ELA Overview (Grades 2-5) 5/21/2012
- Value Added model 5/21/2012
- Green Screen's a Scream 4/28/2012
- Larry Bell Improving Student Achievement 8/8/2011
- Learning Stations training 7/25/2011
- Fish! Philosophy training 07/12/2011
- Crazy Talk 2/24/2011
- Newsmaker 2/15/2011
- Webinar: Teacher Researcher Toolkit 1/26/2011 Kappa Delta PI Sponsor
- PD360 Update Training 1/25/2011
- Webinar: Teacher- Researcher Toolkit 1/26/2011 Kappa Delta PI sponsor
- Webinar: Using Questions to Engage, Teach and Manage Your Students 1/11/2011 Kappa Delta PI sponsor
- John Hodge Presentation 1/3/2011
- Creating Lesson Plans for All Learners: Differentiated Instruction in Action 11/11/2010 Webinar Kappa Delta PI sponsor
- EAGLE Training 9/28/2010
- Scranton Performance Series Viewing reports and using data 9/23/2010
- District wide Progress Monitoring procedures for all Teachers 8/4/2010
- Inclusion workshop and follow-up11/9/2009 and 1/4/2010
- English Textbook In-Service 7-8 Grades 8/11/2009
- Leadership Academy 2008-2009 Sessions
- Scranton Achievement Series- Creating Benchmark Tests 7/27/2009
- SMARTBoard Training- Advanced 7/23/009
- Smart Board Training #2-I am Smarter Than a SMART board 7/20/2009
- Smart Board Training #1- Are You Smarter Than a Smart board? 7/20/2009
- Digging Deep Into the Curriculum - English/Language Arts - 7th-8th 6/3/2009
- SPS School Performance Score Growth Meeting 5/26/2009
- Publish It!- 4/20/2009

- Picture This- 3/30/2009
- PowerPoint - The Game is ON! - Part II 10/03/2008
- Visual Literacy 10/15/2008
- Voice Threads 9/29/2008
- Thinking Maps Software 10/08/2008
- Microsoft PowerPoint 2007 /22/2008
- Microsoft Excel 2007 7/21/2008
- Microsoft Word 2007 07/21/2008
- PowerPoint - The Game is ON 6/30/2008
- 3Rs of Internet - Resources Riches and Really Good Stuff 6/16/2008
- The Point of PowerPoint 2/18/2008
- F.I.S.H. - Free Ideas Start Here   3/31/2008
- Curricular Mapping Class (30 hours) – PBS Teacherline Course 5/15/2007
- LEAP Query Training 10/17/2007
- EAGLE Training 8/9/2007
- Write from the Beginning / Write for the Future - 1 Day training for Middle School Teachers   1/18/2007
- Avatars - Creating Cyber Critters 1/06/2007
- Write for the Future for Secondary English/Content Area Teachers 7/26/2006
- Kagan Cooperative Learning (Secondary)/17/2006
- Gaggle E-mail for Students 11/17/2005
- Internet Treasures for Teachers Bb 10/24/2005
- LaTAAP 3 day training 7/27/2005

Employment

Teacher, Martha Vinyard Elementary School, Ponchatoula, Louisiana 2011- present
    Teaching 5th and 6th grade Computer Literacy
    Teaching 6th grade, Study Skills
    Teaching 5th and 6th grade boys P.E.
    Teaching E 20/20 Virtual Learning

Teacher, Hammond Junior High School, Hammond, Louisiana 2001--2011
    Teaching 7th and 8th grade Computer Literacy
    Teaching 7th grade English Language Arts, and Technology
    Committee Chair for School Improvement Team, and Technology
    Lead Teacher for LEAP remediation
    Worked with 21st Century afterschool program

Teacher, Amite Westside Middle School, Amite, Louisiana 2000-2001
    Teaching 5th grade Social Studies

Teacher, Franklinton Junior High School, Franklinton, Louisiana 1999-2000
   800 Main Street Franklinton, LA 70438   985-839-3436
   Teaching 8th grade English Language Arts

Paraprofessional, Computer Tech, Loranger Elementary School, Loranger, Louisiana 1995-1998
   Worked with K-4 students in the computer lab that supplemented the Reading, Writing, and Math curriculum
   Worked with Pre-K-4 teachers, paraprofessionals, administrative personnel, students, teachers and parents to expand knowledge in the technology supplementing Reading, Writing, and Math curriculum
   Helped fix and repair computer problems in the school

Paraprofessional, Reading Tutor, Loranger Elementary School, Loranger, Louisiana 1986-1995
   Worked with 1st grade students in a program that supplemented the Reading Curriculum
   Worked with 1st grade Teachers to help provide supplemental instruction to the reading curriculum

Counter Help, Burger King, Hammond, Louisiana 1982-1986
   Worked as cashier and counter help in the Burger King fast Food Stores

Professional Affiliations
AEX KDP- Honor Society
NCTE
ISTE
LACUE
ASCD
SLU Alumni Association
Loranger High School Alumni Association