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POST-PROFESSIONAL DEVELOPMENT PERCEPTIONS OF TEACHERS OF

RESEARCH BASED INSTRUCTIONAL PRACTICES

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Abstract

Professional development is critical to the success of schools in this time of accountability for student achievement; but research has suggested that teachers tend to teach the way they were taught (Gardner, 1999; Jonassen, 1981). The purpose of the study was to examine the teacher's perceptions of the implementation of research-based instructional strategies in a comprehensive career and technical high school located in Central Pennsylvania. The information is based on the perceptions and attitudes of teachers and how they implemented the instructional strategies in their classrooms in all curriculum areas. The high school provides a comprehensive academic and technical curriculum and instruction to 850 students. The geographical area served by the school consists of rural, suburban and urban communities. Survey data was collected in addition to individual interviews of teachers by the researcher and summaries of group reflection meetings of staff. The data showed that teachers will implement the research-based instructional strategies with proper professional development and time to integrate the new found strategies. Teachers and administrators must give the strategies time to be analyzed, adopted and adapted to fit each teacher, subject, and class. The data of this particular study demonstrated that the demographics of the school staff and student body, and the cross curriculum applications and implementation of the researched based instructional strategies, lent itself to test the theories of the application and implementations of the research-based instructional strategies.

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Acknowledgements

This study is dedicated to the many people who put their own lives on hold for me, especially my children, Joshua and Michayla. They taught me more than I ever knew about patience, striving for a goal and being independent. My daughter reminds me that, "People who mind don't matter and the people who matter don't mind." I thank my mother, Virginia, who also has sacrificed, worried and lost sleep over this project with me. I could never have completed it without her ongoing encouragement and the time and space to work beyond what I thought was possible. To my special friends, Shelly, Charlie, Maria, Madeleine, Ida and Marilyn, I thank them for their support each step of the way. They have each done so much to help me persevere, especially when I seemingly lost my sense of purpose.

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It is my sincere desire that this research does not find its final resting place on a reference shelf but is used to alter the delivery of professional development services for all teachers that will allow them to try it out and try it on before moving to the next new thing. That school leaders will take the time … 3-6 years to allow an implementation of an initiative to reach all teachers and students and allow teachers to have input into their own professional development.

Post-Professional Development Perceptions of Teachers of

Research-Based Instructional Practices

Chapter 1

The last twenty years of educational reforms have included how the role of teachers and their professional development are linked to student achievement. Landmark studies, A Nation at Risk (1983), Educating Americans for the 21st Century (1983), Investing in People (1989), America's Choice: High Skill or Low Wages (1990), the SCANS report, What Work Requires of Schools (1991), and Before It Is Too Late (2000) by Senator John Glenn (Bracey, 2001) have attacked the traditional American school system. Following these reports in 2001, President George W. Bush and the late Senator Edward Kennedy introduced the highly accountable federal legislation *No Child Left Behind* (NCLB), which is designed to ensure all students who graduate from any high school are prepared to be a productive member of society (USDOE, 2005).

Although the reports have been published the research shows that educational change depends on what teachers do and think (Fullan, 1991). A school can only function as well as the teachers and administrators who work within the school. Goodlad (1984) found everything depends on the actions of the teacher, which although encouraging is a daunting expectation to place on teachers. Professional development is critical to the success of schools in this time of accountability for student achievement. The purpose of this study is to examine the perceptions and attitudes of teachers about the implementation of the researched based strategies and the implication of utilizing

research-based instructional strategies in their classrooms after undergoing professional development at a Career and Technical School in Central Pennsylvania.

The comprehensive Career and Technical High School used in this study provides instruction in all curriculum areas including English, math, science, social studies, foreign language, additional electives and 26 career and technical programs (CTE). The school utilizes a half day schedule with eight –42 minute classroom periods. Students attend five academic classes and three career and technical classes each day. The school provides educational instruction to approximately 850 students from six consortium districts, who have entered into a financial support agreement with the career and technical school, and four tuition districts, who pay tuition based on amount of students accepted to the school, that make up the demographic of Dauphin County, Pennsylvania.

Administrators and teachers at the school have received professional development training in research-based instructional theory and applications beginning in the 2007-2008 school year. This training consisted of four non-consecutive days of intensive professional development through the first year of implementation for each administrator and teacher, which is followed up with periodic reflection meetings with teachers and principals in subsequent years. As new teachers are hired they receive identical training.

Currently, the school employs seven administrators and 88 teachers (43 regular education teachers, 19 special education teachers, and 26 career and technical education teachers). As the Assistant Director of the comprehensive area career and technical school, the author works closely with staff in the areas of curriculum, instruction,

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assessment and most importantly the professional development of administrators and teachers. The author began by assisting new career and technical teachers in their student teaching practicum conducted by the Pennsylvania State University. This is a training to help new career and technical educators learn fundamental information about lesson and curriculum planning, and instruction and assessment. In the current position, the author oversaw the Pennsylvania Department of Education Strategic Plan Approved Mentor program of all new hires of professional staff. This year-long program is designed to assist new teachers understand and develop the lifelong practices of implementing new curriculum, instruction and assessment based on research driven strategies. The author continues to serve all teachers by researching, implementing and serving as a coach for various professional development opportunities. The author does not conduct teacher observations that would be used to evaluate teachers for Pennsylvania Department of Education and/or tenure. These observations are completed by the school principal and two vice–principals.

It is from this administrative perspective that the author is constantly seeking the answer to the research question: *What are the post-professional development perceptions of teachers on the training of the instructional practices?* The author was interested in how information gleaned from the implementation of new instructional strategies at this school could be shared with other schools looking to raise student achievement through the professional development of the administrators and teachers. The final research was completed to examine the successful use of the strategies in the classrooms of the school and detail the attitudes and perceptions of the teaching staff.

Purpose of the Study

The purpose of the study was to examine perceptions and attitudes of the teachers of the professional development program as they were implementing the research-based instructional strategies in the areas of curriculum, lesson planning, instruction and assessment in a comprehensive career and technical school located in Central Pennsylvania. This study examined the attitudes and perceptions of the teachers and the implementation of the instructional strategies, by addressing all curriculum areas including English, math, science, social studies, foreign language, additional electives and 26 CTE programs.

Significance of the Study

The literature from *No Child Left Behind* and Pennsylvania *Act 48*, PDE Certification Standards, suggests that professional development, while desired by teachers, has come about as mandatory requirements to keep certification valid, and is not conducted to help the individual teacher to address teaching strategies. This particular study reviewed locally collected data as to the types of professional development teachers are receiving and to what rate they are implementing the strategies received in their professional development activities. What are the factors that will motivate them to become daily users of the instruction they have received and how has/will it be monitored? As the school's personnel have designed their in-service training, what particular factors have been established that makes this implementation of strategies a school wide endeavor?

Research Questions

The study examined the following research questions:

1) How do the teachers perceive the professional development of the research-based instructional strategies?

2) What are the attitudes of teachers as they adapted and adopted the instructional strategies to their instruction?

3) What factors are motivating the teachers to actively include the strategies in their instructional models?

Limitations

The author is the Assistant Director in charge of professional development and curriculum, this alone could have an effect on the teacher's willingness to share information. The author used various methods to gain information, interviews, focus groups and a voluntary anonymous questionnaire to be able to gain information that was not prejudiced by the opinions of the author. The questionnaire was completed on a volunteer basis to capture the teacher's perceptions and attitudes concerning the professional development. All information was recorded anonymously. This was a convenience sample as all participants are certified teachers employed at Dauphin County Technical School. No teacher was required to complete the survey. All participants were

instructed in writing that if they complete the survey, the information and the details will be used by the administration and Professional Development committee of the Dauphin County Technical School to address the future needs in the professional development of the current staff.

Assumptions

Prior to conducting the study, it has been the belief of the primary investigator that teachers have a tendency to teach as their favorite teacher taught them. Research has suggested that teachers do tend to teach the way they were taught (Gardner, 1999; Jonassen, 1981). Furthermore to impede the addition of the research-based instructional strategies, some teachers are not willing to adapt or adopt teaching strategies based on a professional development activity. In their research, Joyce and Showers (1983) found that there is very little implementation of strategies by a teacher who merely attends an in-service, perhaps as little as 10%. Joyce, Showers & Bennett (1987) have long suggested that teachers do not transfer the knowledge and skills they learned in training sessions to classroom practice. Their research indicates that learning theory, observing demonstrations, and even practicing skills in a training session resulted in, at best, a 5% transfer of skills to the classroom. Joyce and Showers (2002) concluded that "to bring a teaching model of medium complexity under control requires 20 or 25 trials in the classroom over a period of 8-10 weeks": (p74). Teachers seek out the strategies that most reflect their teaching style and only slightly modify their instructional techniques. To see true change in the school: Administration and teaching staff have to be held accountable

to begin using the research-based instructional strategies if there are to be any long lasting adoptions of the strategies into each lesson in each subject matter. "And just as athletes, teachers need ongoing practice and feedback while they are trying to incorporate new strategies into their repertoire" Bickmore (2010).

Definition of Terms

There are many terms used by many professional development specialists that mean the same thing and can be confusing to teachers and students who may be using them out of context or making them fit where the terms (such as activating strategies, "do nows", pre-learning, acceleration) do not belong. Many of these terms can be used interchangeable and can be taught to expand teacher knowledge but currently because of so many initiatives, there is great confusion. The following is a list of terms consistent throughout this dissertation.

Achievement- Performance on assessments (all types) including state and national assessments (Thompson, 2009).

Alignment- A process aimed at matching or coordinating two or more elements so that they mutually support, complement, or are congruent with one another.

Comprehensive Career and Technical School-(CTE) A career and technical center that provides both full academic course offerings and career and technical courses (Lacey, 2006).

Consistent- Using research-based strategies in every unit or lesson every time (Thompson, 2009).

Consortium of Schools- A groups of school districts that fund and whose students participate in the educational opportunities at a career and technical center (Lacey, 2006).

Continuous Improvement- Always improving; continuing to implement new research based instructional strategies (Thompson, 2009).

Curriculum- The format of information which is taught to students: both intended and unintended information, skills, and attitudes.

Curriculum Mapping- A collaborative process of describing the substance, sequence, and/or amount of time spent teaching a subject, skill, objective, or behavior. A curriculum plan may be used for diagnosing, coordinating, or planning improvement needed (Thompson, 2009).

Data Driven- a term to describe the use of data to set goals for increasing achievement, creating plans and objectives to reach preconceived goals, and for monitoring progress (Thompson, 2009).

Delivery System- the scheduling method by which a career and technical center offers courses (e.g., half day session) (Lacey, 2006).

Evaluation- a term to describe the systematic process of gathering, reviewing, and analyzing data from multiple sources in order to make a judgment about the value, worth, or quality in relation to established criteria.

Graphic Organizer- Visual aids designed to display and clarify information in simple, summary terms. Common examples include diagrams, flow charts, concept maps, tables, and figures of various sorts (Thompson, 2009).

Individual Professional Development Plan- A document teachers write to delineate their learning and growth goals, as well as the action steps to be taken to attain those goals.

Learning Communities- Reflective, collaborative environments where teachers and administrators work together to increase student learning, enhance teachers' practices, and improve schools (Reeves, 2006).

Learning Focus- a structured program designed by Max Thompson introduced to many schools throughout the Intermediate Units (IU) in the various parts of the Pennsylvania in 2006. LEARNING-FOCUSED is a comprehensive continuous school improvement model that: 1) provides schools with consistent learning, 2) provides exemplary strategies instruction, and 3) Integrates research-based exemplary practices (Thompson, 2009).

MAX Teaching- is an acronym that stands for the three steps of the teaching framework that any teacher can use to help all students better learn their subject matter and improve the literacy skills of all students. The essential goal of teachers who use the MAX teaching framework is to level the playing field by raising the bar for all students, in a

classroom environment that provides skill instruction to enable improved performance while engaging all students in active learning from textbooks and other forms of textual matter. The acronym stands for Motivation, Acquisition, and eXtension (Forget, 2006).

Mentoring- A paired process in which a more experienced teacher assists and guides a less experienced one.

90-90-90 Schools -schools with 90 percent poverty, 90 percent minority population, and 90 percent achievement (Reeves, 2006).

Observation- A data collecting technique in which the collector is in a position to witness the actions, hear the words, and experience the classroom atmosphere of a particular teacher during instruction.

Reading across the Content Areas- reading processes have been identified as critical for success in all content areas. Teaching reading is an integral part of all content areas: "Every teacher must be a reading teacher" (Billmeyer, 1996). One concern teachers express is that students do not have the skills to read and comprehend content-based text. Therefore, content area teachers need to be skilled in content-based reading strategies (Billmeyer, 1996). Skills needed depend on the content and text. Content teachers are best qualified to help students comprehend the material presented by developing prior knowledge related to the topic.

Standards- statements that identify the essential knowledge, skills, behaviors, or other attributes desired.

Training- A model of professional development in which experts help teachers acquire new skills by: (a) presenting the skill's rationale, (b) demonstrating the skill, (c) creating opportunities for teachers to practice the new skill and receive feedback on their practice, and (d) providing follow up guidance and assistance to teachers using the new skill in the classroom over an extended period of time.

Walkthrough- A member of the administration or the professional development team spends time in each classroom at each grade and subject level to monitor the use of research-based instructional strategies (Thompson, 2009).

Summary

The introduction shows us professional development and its application are not new topics and have been explored by various researchers mainly to emphasize the changes that are needed if we are going to see improvement in student achievement and their scores on achievement tests. There are many terms, ideas and research to be shared on the subject but it is what each administrator and teacher does that will make the ultimate difference for the students.

Chapter II

Review of the Literature

Blase & Kirby, (2008) have shown that administrators must encourage a culture and climate of innovation. Teachers perform better when principals value their professional judgments and give them the autonomy to make the decisions to improve practice. Thriving school officials and administrators have researched the instructional strategies that are right for their context, make thoughtful decisions about what needs to change, and choose long term commitment to help teachers internalize change and move student improvement forward. Leitch & Day (2000) have found in their research that teachers are more likely to stay within their comfort zones and, in turn, are less likely to make the optimal decisions that will best meet their teaching goals. Thus, teachers must receive from their administrators the ability and time to explore, adapt, adopt and evaluate new instructional approaches that can capture the full range of student learning. Research has shown that the single most important factor for a successful school is having an excellent teacher in every classroom (Salazar, 2008). To add to the need for proper leadership, McEwan (2002 p.37) wrote: "Leadership is influencing others to change, learn, grow, expand, move forward, do things differently, become independent, take responsibility, and achieve goals. Highly effective teachers wield this influence in three very different, but highly connected arenas: the classroom, the school and the community". Furthermore, the *TTA Handbook of Guidance*, (2003) states to teach

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effectively, teachers need to have the capacity and commitment to analyze and reflect on their own practice, and to improve it throughout their careers through professional development and engagement with new knowledge and ideas. Teachers need to experience new environments as learners themselves in order to implement changes in their instruction; because the teachers experience the frustrations and joys working with any new material, they can better understand the difficulties their students may be having understanding the new information (Moar, 1999).

Wenglinsky (2002) examined the relationship between teachers' practices and the effects on student achievement. He found that high quality professional development activities that focus on higher-order thinking skills and diversity issues do appear to strongly influence classroom practice. Teacher quality and classroom practices do have an effect on student achievement that is equal to or exceeds that of socioeconomic status of the student. Wenglinsky also identified five aspects of teacher quality that affect student achievement: They were 1) a teacher's major, 2) professional development in higher-order thinking skills, 3) diversity training, 4) use of hands on learning in classrooms, and 5) focusing on higher-order thinking skills in the classroom (Wenglinsky, 2002, p.1-3.).

The message being communicated to teachers and administrators is that they must continually look at professional development as a lifelong learning commitment. The education of teachers is not a onetime investment but a constant refreshing of strategies and implementation of new teaching techniques to meet the ever changing needs of

today's students. Therefore, the review of literature will examine more closely the following topics: 1) Current trends in professional development, 2) teachers' perceptions of professional development, 3) research on effective schools, and 4) research on effective teachers.

Current Trends in Professional Development for Educators

Currently in the realm of education, the focus of in-service training has shifted from providing professional development to teachers and administrators on the basis of furthering their own development to focusing more on the needs of the students they instruct. In an effort to target this area of professional development, more schools are trying to target the educational gaps in student learning. However, there are multiple factors that are contributing to significant gaps (Killion, 2002; McTighe & Thomas, 2003). According to the most recent data from the U.S. Department of Education, more than one out of four high school students in the class of 2005-2006 did not graduate in four years; in fact, fewer students in the class of 2005-2006 graduated on time than did students in the class of 2005-2005 (Cataldi, Laird, & KewalRamani, 2009). A number of in-school factors lead to student drop out: students don't think that the content and classes are interesting, don't feel connected to the school, and don't see the purpose or relevance in the work they are doing (Bridgeland, Dilulio, &Morrison, 2006). Research continues to show the needs of the students should be the top priority driving the educator's professional development goals and determine the content for the adult professional development to meet the needs of the students they teach. Furthermore, schools have the

power to create the conditions under which students can achieve highly; become motivated for learning; and stay connected academically, socially, and emotionally (ASCD, 2009).

To be able to offer the professional development that will have the most impact on student performance, in-service trainers must begin to look at strategies that will affect the instructional model. Learning theory tells us that adults are motivated to acquire new knowledge by meaningful problems to solve more so than by assigned tasks to complete (Knowles, Holton, & Swanson, 1998). Applying this finding to teachers' professional development, any trainer must look at the school data including the needs of the student body, and then formulate a plan that meets those needs by teaching the teachers new instructional strategies.

Honawar (2005) found through research on teaching methods, when effective teachers taught well structured skills and expository material, the teachers used the following procedures: 1) begin a lesson with a short review of previous learning, 2) begin a lesson with a short statement of goals, 3) present new material in small steps, providing for student practice after each step, 4) give clear and detailed instructions and explanations, 5) provide a high level of practice for all students, 6) ask a large number of questions to check for student understanding, and obtain responses from all students, 7) guide students during initial practice, 8) provide systematic feedback and corrections, and 9) provide explicit instruction and practice for seatwork exercises and, where necessary, monitor student during seatwork.

The effort of a comprehensive school improvement plan must support the teacher's continuous development on the job (Gordon, 2004). School administration and governing bodies must plan with teachers using the student data to develop a system of professional development that will fit the needs of the individual teachers, school organization and students. To do this effectively, all school officials and teachers must analyze student data, observe current instructional methods, ask tough questions as to the curriculum concepts and essential information, and be ready to improve and utilize new strategies.

In their book, *The First Days of School,* Wong & Wong (2001) noted, that "Training is one of the best ways to send a message to your teachers that you value them and want them to succeed and stay. Much worse than training people and losing them is not training them and keeping them (p.v). Similarly, Darling-Hammond (2007) found in reviewing the latest research that it is teacher qualifications, teacher knowledge, and skills that make more difference for student learning than any other single factor. In the introduction of *Teaching Teachers: Professional Development to Improve Student Achievement* (2005), by the American Educational Research Association, stated in the Research Points: Essential Information for Educational Policy: "Good teachers form the foundation of good schools, and improving teacher's skills and knowledge is one of the most important investments of time and money that local, state, and national leaders make in education. Our changing goals for learning, coupled with shifts in curriculum emphasis and deeper understanding of teacher learning and student thinking, have led to

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new findings about the impact of teacher professional development and how best to sharpen teacher's skills and knowledge" (p 3-4).

Guskey (2002) identified the Five Levels of Assessment, as applied to teachers' professional development as:

Level 1: Teachers' reaction

Level 2: Teachers' learning

Level 3: Organizational support and change

Level 4: Teachers' use of new knowledge and skills

Level 5: Student learning outcomes

Using these five levels, professional development goes from being just a theory being shared with teachers to a justified initiative that can cause change in student learning outcomes.

To be able to introduce the changes, schools must have in place supportive policies, strong leadership, sufficient resources, and a positive climate aimed at increasing student learning (Newmann, Smith, Allenworth, & Bryk, 2001). There must be a collecting of evidence by completing brief walk-throughs of multiple classrooms by teams of teachers and administrators to sample broadly and create a composite school-wide portrait (Richardson, 2001b). From the observable information collected and student data, teachers and administrators are in a position to begin to use a collaborative

problem solving model, which involves two or more teachers and administrators thinking and working together. Given this process, worthwhile leaning will occur (Roberts & Pruitt, 2003).

Following the logic of Roberts & Pruitt, many other authors also concur, reporting that the research based instruction must be closely modeled and monitored and the administration and the staff must have the same interpretation of what should take place to begin to see changes. Murphy & Lick (2001) stated that to improve education and see change the following must occur: 1) school improvement or shared decision making teams must be created whose charges can be broad and wide-ranging, 2) curriculum development committees, with goals often more narrowly defined by content area must meet to discuss the initiative, and 3) study groups, wherein teachers learn together about a topic of mutual interest and demonstrate what they have acquired in the classrooms, and 4) to assemble assessment teams that create tests or other measures of student learning outcomes to be used by multiple teachers to show consistency throughout the subject matter (Langer, Colter, & Goff, 2003).

Research has shown that teachers need a support system to help build from the initiative to move it forward to see the change. One such aspect of this is mentoring with a more experienced educator helping and guiding novice teachers (Portner, 2003). Some schools and curriculum teams create critical friends, wherein either pairs or groups challenge and support each other in any number of areas (Bambino, 2002). All these

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supports allow for teachers to feel safe and supported during the initial phase of using new teaching models in their own classrooms.

To be able to associate the changes taking place in the classroom with student outcomes, teachers may choose to use student work analysis, with teachers examining samples of student work to enable their improvement of subsequent instruction with students (Richardson, 2001a). Another popular method, which has become to be called learning communities, is where there are groups of teachers reviewing a lesson taught, where teachers jointly create, demonstrate, discuss, debrief, and improve a particular lesson (Richardson,(2004).

This idea of teaching the teacher is well documented. It is believed that framing adult collaborations around common concerns for students can elevate relevance to, commitment from, and learning by teachers (Roberts & Pruitt, 2003). Joyce & Showers (2002) found there are five components necessary for training of adults to be effective for skill acquisition and use. The five components are: 1) theory, 2) demonstration, 3) practice, 4) feedback, and 5) follow-up or coaching. In the initial component, theory, the presentation of the theory or rationale defines the value, importance, and use of the skill of interest. Often, this is what looks and sounds like a lecture or the equivalent of direct instruction for students. It is the telling or describing portion of training. Second, demonstration involves modeling the desired skill, typically by the trainer. Third, opportunities for learners to practice the skill, both while under the direction of experts, and over time in a more natural setting. Fourth, feedback that is timely and constructive

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on learners' practice, so that they can understand what they are doing well and what needs further refinement. And fifth, follow up or coaching that gives long term guidance and assistance so that what was practiced in training sessions or other simulations is transferred to the actual work setting (Joyce & Showers (2002).

Joyce & Showers (1995, 2002) indicated in their research that it takes at least 20 to 25 practice trials over approximately eight to ten weeks to transfer moderately complex new teaching skills and strategies appropriately and consistently into classroom instruction. Moreover, school administrators need to understand that it will take three to five years to implement change in instructional practices school wide (Fullan, 2001, Hall & Hord, 1987). Administrators are learning that supporting teachers' continuous development on the job is an important piece of the comprehensive school improvement plan (Gordon, 2004).

Stigler & Hiebert (1999) found through their research that the following six principles are needed for gradual, measurable improvements.   That for a school community to create a rational basis for continuing steady school improvements that meets the needs of students while also addressing the mandates in state and federal initiatives for school reform they must implement the following: 1) expect improvements to be continual, gradual, and incremental, 2) maintain a constant focus on student learning goals, 3) focus on teaching, not teachers, 4) make improvements in context, 5) make improvement in the work of the teachers and 6) build a system that can learn from its own experience

Teachers' Perceptions of Professional Development

The greatest problem facing school districts is not resistance to innovation of teaching strategies but rather it is the fragmentation, overload, and incoherence resulting from the uncritical acceptance of too many different innovations (Fullan, 1991). It is important to note that professional development programs and activities do not directly or exclusively affect improvements in student learning (Wang, Frechtling, & Sanders, 1999). Rather, their influence on students is accomplished principally through their positive effect on the knowledge and practices of teachers and school administrators. This is important to understand because if staff development for school improvement is presented as remediation for presumed deficiencies on the part of teachers, resistance from the participants is a common reaction.

If we want better outcomes, we need to look beyond isolated innovations to focus on training that affects the impact teachers have on their student's learning. The current system of training is insensitive to the fact that people work best in a climate that creates high expectations while minimizing potential personal threat (Senge, 1990). Effective professional development is school-based, collaborative, and involves teachers in the identification of what they, the teachers, need to learn (Hodges, 1996).

Characteristics of Effective Teachers

McGreal (1993) defined good teaching as knowledge of content in a specific area, knowing how to teach that particular content, general teaching knowledge, and knowledge of the students. Teachers must be willing to reflect on their own processes

and progress. Manzo(2003) stated "What gets taught is the strongest single predictor of gains in achievement." Furthermore, he then added "regardless of what a state policy or a district curriculum spells out, the classroom teacher decides what topics to cover" (Manzo, 2003b, p.8). The main point is "Educational change depends on what teachers do and think, it is as simple and as complex as that" (Fullan & Stiegelbaur, 1991, p. 117).

Borko & Puttnam (1995) offer a cognitive psychological perspective on professional development in which change in practice is associated with the inner mental workings of teachers and their constructions of new understandings in the process of learning. This refers back to the information on adult learners and how the system must allow them to process and practice the new information. Bell & Gilbert (1996) approached the issue of professional development of teachers from the constructivist perspective, showing how teachers need to investigate their own current constructs of teaching and learning before they are ready to re-construct new beliefs. A clear focus on professional development is crucial to expanding educators' knowledge and skills; certainly a prerequisite to education's mission of raising student performance (Speck & Knipe, 2001). This research reflects the need for teachers to continue to learn, demonstrate and practice the new initiatives and calls for the administrators to continue to follow up or coach as needed for proper implementation.

Studying teachers as learners, Fullan, Bennett, & Rolheiser-Bennett (1990) concluded teachers, along with other professional educators, are distinguished by four specific characteristics: 1) possession of a technical repertoire of practices and skills that

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lend confidence to their own learning, 2) reflective practices that enhance the clarity and meaning of the learning they apply to practice, 3) a disposition to research that encourages exploration and investigation in their pursuit of improved practice, and 4) openness to actively improve their teaching by introducing new techniques. This is in alignment with the research of Alexander & Murphy, (1998) who summarized their research on learning and identified five learner centered principles: 1) one's existing knowledge serves as a basis for all future learning as it filters all new experiences, 2) reflecting on experience and regulating one's thoughts and behaviors is essential to learning and development 3) motivational and affective factors, such as intrinsic motivation, emotions, personal goals, as well as the motivational characteristics of the learning/tasks, play a significant role in the learning process, 4) learning proceeds through common stages of development across a series of interdependent domains that are influenced by inherited experiential, and environmental factors and 5) learning is as much a socially shared undertaking as it is an individually constructed undertaking. It is only through system allowing the teachers the time and latitude to create teaching scenarios with the new information and refine them that the system allows for teachers to be effective.

Characteristics of Effective Schools

Douglas Reeves (2006) has outlined what it takes to create a school where all children can be successful. Starting with his 90-90-90 study of schools in the 1990s (schools with 90 percent poverty, 90 percent minority population, and 90 percent

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achievement), Reeves has documented five common practices that these high achieving school engage in: (1) accountability, (2) non-fiction writing across the curriculum, (3) frequent use of assessments, (4) immediate intervention, and (5) constant use of constructive data.

School personnel recognize the need for multiple training components to achieve transfer of training; the consistent implementation of new knowledge and practice in the classroom. As found by Joyce & Showers, (1995, 2002) who show in their research, that roughly 95 percent of participants will achieve transfer when they are provided with necessary training components. Research conducted by the NEA Foundation for the Improvement of Education (Re'nyi, 1996) defined high quality professional development as: 1) focuses goals on the improvement of student learning, 2) helps teachers and staff meet the needs of diverse students, 3) offers sufficient time for inquiry, reflection, and mentoring as part of the normal working day, 4) is sustained, rigorous and adequate for making long term changes in practice, and 5) focuses on teachers' intellectual development and leadership, 6) encourages building subject matter knowledge, understanding learning, and appreciating students' needs, 7) is designed and led by teachers and incorporates adult learning theory, 8) balances individual needs and priorities with those of the school and the district, 9) efficiently uses new technology, 10) is site based and founded on a clearly defined vision for students, and 11) effective schools utilize these components in their professional development plan. It is what makes effective teachers that make effective schools; everyone in the school community must be invested in the initiative.

Summary

Based on the previous literature, teachers need to identify the goals of the school improvement plan to best meet the needs of their students. The major emphasis should not be the remediation of the teacher instructional techniques but rather to investigate demonstrated research-based strategies and in turn implement those strategies into instruction throughout the school. The school administration, community and teachers need to understand that immediate changes will not be readily evident. Effective implementation and follow through will bring small changes that will result in student achievement.

School improvement aimed at increased student learning also requires bringing multiple elements to bear simultaneously (Killion, 2002). In order to work well together, professional development initiatives should: 1) share common premises and goals, 2) complement rather than compete with each other, and 3) address the school's top priority, student learning goals (Guskey, 1997). For teachers, whose professional ranks are subject to the scrutiny of critics seeking to identify and remove inadequate practitioners; the risk in being labeled non-learners due to infrequent participation in continuing professional development activities is both real and professionally hazardous (Cervero, 1988). The research has shown that it is important to allow teachers to be part of the planning of the professional development in their schools. It is the responsibility of the administration and the staff to review and research strategies that are proven to add in the attainment of goal oriented student outcomes. Professional development has shifted its

emphasis from working on teachers to working with teachers toward improvement of

teaching and learning for all students (Cook & Fine, 1996, p.3).

Chapter III

Methodology

The study examined the implementation of research-based educational strategies in the areas of curriculum, lesson planning, instruction and assessment in a comprehensive career and technical school located in Central Pennsylvania. This study closely examined the attitudes and perceptions of teachers regarding the implementation of the instructional strategies across all curriculum areas including English, math, science, social studies, foreign language, additional electives and 26 career and technical programs.

Research Questions

The study addressed the following research questions:

1) How did the teachers perceive the professional development of the research-based instructional strategies?

2) What were the attitudes of teachers as they adapted and adopted the instructional strategies to their instruction?

3) What factors motivated them to actively include the strategies in their instructional models?

Research Design

The study included mixed approaches of data collection. The three data collection approaches used to identify teachers questions and concerns included a survey, focus group reflection meetings and one-on-one interviews. Previous studies that have used multiple forms and protocols and focus on behavior rather than how well the teacher performs using evaluative constructs validates the collection of data (Mayer, 1999). In this study the author used additional data collection approaches to collect defining data which included focus group reflection meetings where voluntary staff members were provided prompts that allowed for open discussion. Teachers were invited to participate with various team leaders in small group discussion; those who consented to meet with the author received an explanation of the research and approved of being recorded for transcription in whole or part. The focus groups had no dynamic make up of individuals and were open to any teaching staff members who consented to the information being shared through the writing of this dissertation and subsequent research. The focus group reflection meetings were held over two in-service days in three individual 45 minute sessions that were made up of different participants.

The author also interviewed six randomly selected instructors who volunteered for one-on-one interviews which were recorded and transcribed during open times in the teacher's schedule during the school day between the November and January in service days. The six participants for the interview consisted of two regular education teachers, two special education teachers and two career and technical instructors. The author used

a school wide observation form of teaching strategies to framework the questions and to ask interviewees if they were currently using the research based strategies and to share their interpretations and examples of the strategies. The various methods to obtain data provide the basis for calling the research a descriptive case study of a school using multiple data collection strategies (Patton, 2002; Yin, 1998).

Participants

The possible participants in this study were 88 teachers employed at the Dauphin County Technical School in Harrisburg, Pennsylvania at the time of the study (Fall 2009-Spring 2010). At the time of the study 43 were regular education teachers (who teach academic courses such as English, math, science, social studies, and other related subjects); 19 were certified special education teachers who may or may not be highly qualified as designated by Pennsylvania Department of Education in a particular academic subject area; and 26 career and technical instructors who are content area experts in various trades. Each teacher is at a different level of educational training and the career and technical teachers are currently completing the necessary steps to apply for vocational instructional II certification from the Pennsylvania Department of Education.

Academic Educator

To define the various types of teachers, the researcher used the Pennsylvania Department of Education web page to lay out the structure of the teachers and their qualifications. As Dauphin County Technical School is a comprehensive school we are charged with accepting all students into the school from six sending districts as long as it

is a safe environment. That means we have teachers of various training backgrounds and needs based on their subject matter. The time students spend with a teacher is also dependent on their certification. All teachers are responsible for following the rules and regulations of the Department of Education, statewide and federal and the Board of Education, locally and state.

Special Education Educator

NCLB's Highly Qualified Teacher Requirements, due to the federal regulations mentioned earlier as *No Child Left Behind*, the role of the special education teacher changed from being a qualified special education teacher to a teacher who also specializes in a core subject area as described below. All public school teachers with primary responsibility for direct instruction in one or more of NCLB's core content areas are required to demonstrate that they satisfy the definition of a "Highly Qualified Teacher." (HQT) This requirement includes: 1) elementary level (grades K-6) teachers who teach all subjects to a particular grade; 2) middle- and secondary-level (grades 7-12) core content area instructors; 3) special education teachers who provide direct instruction in one or more core content areas; 4) English as a second language (ESL) teachers who provide direct instruction in one or more core content areas; and 5) alternative education teachers who provide direct instruction in one or more core content areas. Pennsylvania's Definition of Highly Qualified Teacher as addressed on the Pennsylvania Department of Education Web Page (2010) is to: satisfy the definition of a Highly Qualified Teacher, teachers must: A) hold at least a bachelor's degree; B) hold a valid Pennsylvania teaching

certificate (i.e., Instructional I, Instructional II or Intern certificate but not an emergency permit); and C) demonstrate subject matter competency for the core content area they teach.

In Pennsylvania, the NCLB core content areas include English, Reading/Language Arts, Mathematics, Sciences, Foreign Languages, Music and Art, and Social Studies (history, economics, geography, and civics and government). Pennsylvania is committed to the goals advanced by the *No Child Left Behind* Act (NCLB) and continues to demonstrate its good faith implementation of NCLB's specific requirements. Moreover, Pennsylvania recognizes that teacher quality has a major impact on student achievement and remains committed to the goal of ensuring that every child in Pennsylvania be taught by a high quality teacher who is equipped to teach in a way that enables every student to experience academic success. With those goals in mind, in September, 2006 the Department of Education (PDE) submitted to the US Department of Education (USDE) a revised HQT plan that provides specific information on the steps Pennsylvania is taking to reach the NCLB "highly qualified teacher" (HQT) goal in the 2006-2007 school year and beyond. The plan addresses each of the USDE requirements.

<div align="center">**Career and Technical Educator**</div>

From the Pennsylvania Department of Education web site 2010, it states: "Pennsylvania's commitment to developing an educated workforce is evidenced in our dedication to career and technical education. Career and technical schools provide

training and education for individuals ages 14 and up, as well as for business and industry partners. Economists have forecasted that the key to a successful and productive society is found in maintaining an educated workforce. Whether a student wants to become a computer technician, an aviation mechanic, or an entrepreneur, there is a training program available."

A Vocational Instructional I certification requires passage of an occupational examination, at least two years of wage earning experience in the occupation and the completion of an approved program of at least 18 semester hours in the areas of general, professional, and vocational professional education. A minimum of 50 percent of the program must be in vocational professional education. Vocational Instructional II certification requires the completion of 78 hours in an approved program and three years of satisfactory teaching on a Vocational I certificate. An instructor must also show competence on certain State required Praxis tests in reading, writing, and math.

Professional Development Activities

All volunteer participants were instructors who completed four non-consecutive days of professional development training of research-based instructional strategies (Appendix N.) in 2007-2008. The school professional development team members were trained by employees at Capital Area Intermediate Unit at regional workshops during the previous school year. Dauphin County Technical School professional development team members who received the initial training were asked to implement the strategies in their own classrooms and share success stories with other members of the teaching staff during

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the 2006-2007 school year. In the Fall of 2007, all teachers were trained utilizing a four-day non-consecutive instructional model that allowed the teachers to have time to incorporate the strategies in their instruction and attend numerous reflection meetings to discuss the impact of the implementation of the research-based instructional strategies and ask any questions of each other and trainers.

Teachers were given professional development on various related research based strategies and demonstrations on how to integrate the research based strategies into their existing instructional strategies. Some of these strategies came from Learning Focus Strategies, Reading across the Content Area, Southern Region Education Board Strategies and Max Teaching. In each professional development in-service or training, the trainers stressed to the staff that these were additional "tools for teachers to add to their teaching instructional toolbox". This toolbox terminology came from one of the trainers who shared not all strategies fit every class or every student and must be used to enhance the instruction not used as a check off or as a duty done. "The crucial point is that it is not the professional development per se, but the experience of successful implementation that changes their (teachers) attitudes and beliefs. Professional development effects a change in classroom practice which results in observed positive changes (Figure 1) in student learning which results in a change of the teacher attitude and beliefs (Guskey,2000)."

Figure 1. Guskey 's Model of Teacher Change (2000,

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                    │  Professional       │
                    │  Development of     │
                    │  Research Based     │
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│ Changes in Classroom│ │ Changes in      │ │ Change in Teachers' │
│                     │ │                 │ │ Attitudes           │
│ Practice            │ │ Student         │ │                     │
│                     │ │                 │ │ and Beliefs         │
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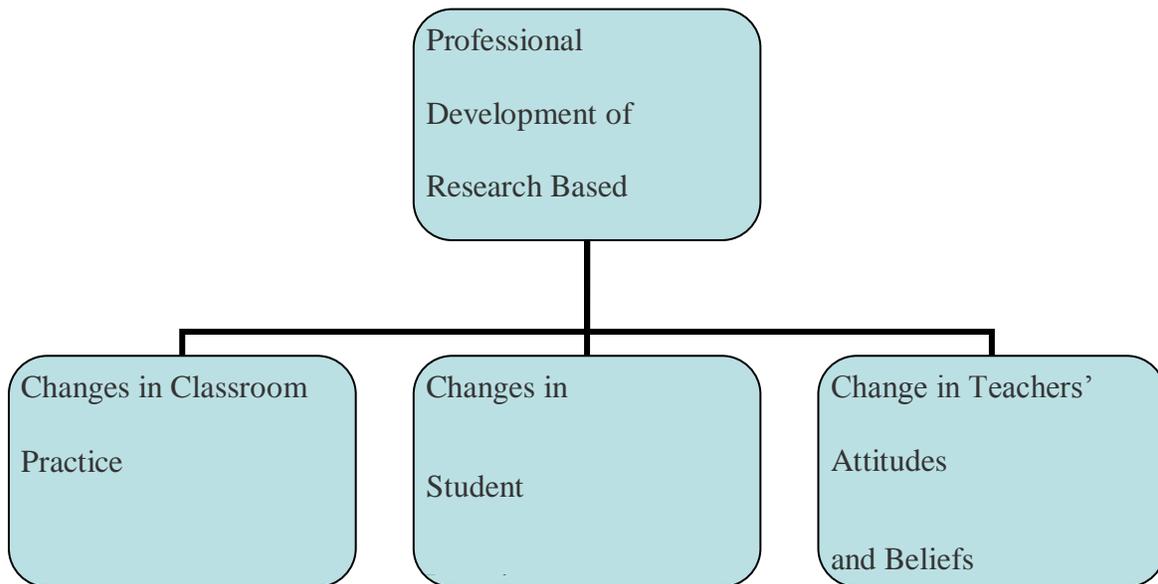
Limitations

The survey was completed by 49 volunteer teachers from the total pool of 88 teachers that participated in the professional development program. Thus no intent is made to generalize the results beyond the 49 teachers. The research was conducted with permission of the Dauphin County Technical School Joint Operating Committee, administration and staff. The bias of the author maybe construed as a limitation because of the dual role of the author of the study. The author is employed by the school district as the Assistant Director whose duties include curriculum and lesson planning, professional development planning and also coaching teachers to implement new instructional strategies. The author without knowledge may have caused participants to not share with complete abandonment their true perceptions and attitudes concerning the

professional development and subsequent adaption and adoption of the instructional strategies.

Instrumentation

The study used the Guskey's (2003) Model of Professional Development Evaluation as a basis for developing the data collection strategies and the appropriate instrumentation. The actual survey was amended with permission from Dr. Guskey to eliminate questions that were not addressing the perceptions and attitudes of the participants. Wallin, Hildebrandt, & Malik, (2008) reported multiple evaluation tools may be devised for each level of analysis, both qualitative and quantitative in nature. In addition, evaluations do not necessarily have to occur at the end of a professional development session; productive evaluations run concurrently throughout the design, deliverance, and conclusion of the professional development. There are ongoing focus group reflection meetings with administrators and staff for the purpose to discuss the implementation of the professional development activities and the results achieved through the implementation of the instructional strategies.

Professional Development Survey

The survey (Appendix C) used a Lickert Response Scale ranging from 1) Strongly Disagree, 2) Disagree, 3) Somewhat Agree, 4) Agree and 5) Strongly Agree. The survey also has open ended items which asked for input regarding 1) participant outcome, 2) organizational outcomes, and 3) student outcomes.

Guskey (2000) suggests that the effective evaluation of any professional development activity needs to incorporate five levels of evidence: 1) participants' reactions; 2) participants' learning; 3) organization support and change; 4) participants' use of new knowledge and skills; and 5) student leaning outcomes. Using the five evidence measures Guskey developed Table 1, which summarizes the data collection approaches, the survey questions and how the information was used.

Table 1

Five Critical Levels of Professional Development Evaluation

Evaluation Evidence Level	What questions are addressed?	How to gather the information?	What is measured or assessed?	How will the information be used?
1.Participants reaction	Did they like it? Was their time well spent? Did the material make sense? Will it be useful? Was the leader knowledgeable and helpful? Were the refreshments fresh and tasty? Was the room the right temperature? Were the chairs comfortable?	Questionnaires Focus Groups Interviews Personal Learning Logs	Initial satisfaction with the experience	To improve programs, design and delivery
2. Participants Learning	Did participants acquire the intended knowledge and skills?	Paper and pencil instruments Simulations and demonstrations Participants reflections (oral and/or written) Participant portfolios Case study analysis	New knowledge and skills of participants	To improve program content, format, and organization

3.Organization support and Change	What was the impact on the organization? Did it affect organizational climate and procedures? Was implementation advocated, facilitated and supported? Was the support public and overt? Were problems addressed quickly and efficiently? Were sufficient resources made available? Were success recognized and shared?	District school records Minutes from follow up meetings Questionnaires Focus Groups Structured interviews with participants and school district administrators Participant portfolios	The organizations advocacy, support, accommodations, facilitations and recognition	To document and improve organizational Support. To inform future change efforts
4.Participants use of new knowledge and skills	Did participants effectively apply the new knowledge and skills?	Questionnaires Structured interviews with participants and their supervisors Participants reflections Participants portfolios Direct observations video or audio tapes	Degree and quality of implementation	To document and improve the implementation of program contents

| 5.Student Learning Outcomes | What was the impact on students?

Did it affect student's performances or achievement?

Did it influence students physical or emotional well being?

Are students more confident as learners?

Is student attendance improving?

Are drop outs decreasing? | Student records

School records

Questionnaires

Structured interviews with students, parents, teachers and/or administrators

Participant's portfolios | Student learning outcomes:

Cognitive

Affective

Psychomotor | To focus and improve

all aspects of the

program design,

implementation and

follow up

To demonstrate

the overall impact

of professional

development |

Guskey, 2000

The amendments that were made to the survey were to define the questions as pertaining to research-based instruction and the deletion of a question concerning budget oversight. This permission was granted by Dr. Guskey in an email (Appendix E.) and personal conversation at the Pennsylvania Association of Supervision and Curriculum Development in November, 2009.

Focus Group Reflection Meetings

The other method of gaining information was focus group reflection meetings using specified prompts (Appendix F) during scheduled in-service days where teachers and administrators met to discuss strengths, weaknesses, and opportunities for growth and limitations with the implementation of the professional development instructional

strategies. As was stated previously the participants who met with the author were given

consent forms to complete and were reminded that information in part or whole may be

shared with administration, the Professional Development Committee and/or be used in

the writing of the study. The author would keep anonymity of the participants when

sharing information.

Teacher Interviews

The One-on-One Teacher Interviews were with six individual teachers who

voluntarily contacted the researcher to share their own views for the purpose of the study.

The researcher used the school's actual administrative observation form for five minute

walk throughs to get instructors to speak about uses or non uses and why (Appendix H).

The content of the form was used as a basis of terminology to ask for input into the

adaption and adoption of the research based instructional strategies. Participants were

asked to sign consent forms and were told that information from the interviews could be

used in part or whole and may be shared with administration, the Professional

Development Committee and/or be used in the writing of the final study. The author

would keep anonymity of the participants when sharing information.

Data Analysis Procedures

The Likert response scale items were analyzed using relative percent, means and

standard deviations. During in-service training, there were Focus Group Reflection

meetings where the researcher observed the dialog and recorded information shared by

teachers with their informed consent as to their perceptions, attitudes and the level of

implementation of the strategies learned during the past professional development sessions. The researcher also interviewed six teachers to discuss the positive and negative aspects of the strategies including reflections on what works for them and what may not be useful. The information from the reflection meetings and interviews was used to strengthen the understanding of the implementation of the researched-based instructional strategies with the staff's perceptions and attitude in subsequent trainings.

Validity

Participation in the self-report study was strictly voluntary. The Focus Group Reflection meetings and interviews were conducted to gain information as to the use of instructional strategies in the classroom that were learned in prior professional development. In the act of self-reporting, teachers may have chosen to embellish the actual facts in an effort to show conformity in the classroom. It is through the gathering of various data through surveys, focus group reflection meetings and interviews that the researcher was able to see a pattern of perceptions, attitudes and the use of the instructional strategies. This method of looking at various gathered data is a process called triangulation (Sagor, 2002). Another name is "convergent validity". The term means using multiple independent sources of information gathered to validate the research. Varied sources of data allow researchers to observe a phenomenon through multiple "windows" to ascertain where the data converge on the outcome.

In relation to the validity of the survey and the extent to which inferences are appropriate and meaningful, the survey created by Guskey and Roy was designed to

assess the perceptions of teachers in response to non-specific professional development activities. As this use of the survey is to gain feedback on the implementation of the research based instructional strategies, the questions may appear vague and not be fully understood by all survey takers. Due to the collection of the data by a school administrator and not fully understanding the use of the data; some instructors may not have been as truthful or forthcoming in answers. In psychometric literature this symbolizes "impression management" which means that situational variables can influence the individual endorsement of those teachers completing the survey. This speaks to the matter of specificity and to interpretation of the questions and the subsequent uses of the information collected. The validity also involves the overall evaluative judgment of the data collected. The researchers own personal attitudes and perceptions could invalidate the data and findings based on past experiences, responsibility of providing the staff with professional development, and the initiatives that are directed by Pennsylvania Department of Education and holding a leadership position in the school. To mitigate the impact of these factors, the researcher will work with the school's curriculum coordinators to allow all participating teachers to ask questions or express concerns about participating and answering questions. The curriculum coordinators shared that this practice was completed to select future professional development activities to assist teachers in carrying on the implementation and furthering their knowledge base of instructional strategies beyond the timeframe of the study.

Variables

The independent variable in this research is the professional development program (research-based instructional strategy training). The dependent variable is the degree to which each teacher implements the strategies that are presented as part of the professional development. Other relevant independent variables brought into the study include the age, gender, and educational level of each teacher. As this is a study to examine the perceptions, attitudes and what influenced the implementation of specified instructional strategies and the teacher's willingness and the ability to adapt the strategies into his or her teaching, these demographic factors were gathered to look for any trends that may want to be explored in the future.

Chapter IV

Findings

The purpose of the study as was stated in the beginning of the paper was to examine the implementation of research-based strategies in the areas of curriculum, lesson planning, instruction and assessment in a comprehensive career and technical school located in Central Pennsylvania. This study closely examined the attitudes and perceptions of the teachers and the implementation of the instructional strategies, by addressing all curriculum areas including English, math, science, social studies, foreign language, additional electives and 26 CTE programs. The research questions that were to be addressed were: 1) how did the teachers perceive the professional development of the research-based instructional strategies, 2) what were the attitudes of teachers as they adapted and adopted the instructional strategies to their instruction, and 3) what factors motivated them to actively include the strategies in their instructional models? To answer these questions, the researcher used three methods of gaining data. The first was a voluntary survey that was completed by 48 teachers. The study used a generalized survey with three open-ended questions, the second data source was focus groups made up of teachers with varied backgrounds, and finally one on one interviews with six individual teachers utilizing the form that is used by the supervising administrators for "look fors". The researcher purposely used this form to see if teachers realized that some research-based activities were universally used and others became difficult to use and may or may not be worth it for the teacher and the class they are teaching that period.

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The form was also used as a familiar tool with staff members to use consistent terminology that has been used by trainers and administration during and throughout the professional development.

Rate of Return

The rate of return was good as it was a voluntary study given over a two month period for teachers to complete without recognition nor any incentives. There were 48 participants that completed the survey in some form out of a possibility of 88 teachers on staff; so over half completed the survey. This is believed to be a good sign that teachers are interested in their own professional development. The outcome of the survey is discussed later in this chapter.

Participants

The possible participants in this study were 88 teachers employed at the Dauphin County Technical School in Harrisburg, Pennsylvania at the time of the study (Fall 2009-Spring 2010). At the time of the study 43 were regular education teachers (who teach academic courses such as English, math, science, social studies, and other related subjects); 19 were certified special education teachers who may or may not be highly qualified as designated by Pennsylvania Department of Education in a particular academic subject area; and 26 career and technical instructors who are content area experts in various career and technical programs.

Background of Participants

The background of all survey participants is that they had taught at Dauphin County Technical School for at least three years and had undergone the training of the researched-based methods. All participants would have had a chance to discuss problems or trends with administrators and other staff at in-service reflection meetings as well as speaking to individual school trainers and curriculum coordinators for help. As a requirement for all teachers, last school year (2008-2009), the Administration required all teachers to complete two full instructional units utilizing researched-based strategies and two lessons utilizing integration. These exercises proved helpful as it was obvious if someone misunderstood the use of the strategies and how it could improve the lesson. This allowed the in school trainers to work with individual teachers to help them improve and understand the templates and strategies. The in-house trainers were able to go into classrooms and model the strategies. This year (2009-2010), the principal has asked that all teachers on weekly lesson plans include where and when integration is used and to define when they are using any of the previous taught strategies. When being observed by the Principal and her team, these are points of interest to be asked about and followed through so teachers see the connection between training, curriculum development, instruction and assessment.

Gender

The gender of the participants was split almost matching the percentages of staff gender with 21 males and 27 females completing the survey. Gender may not be a significant factor however, for further research it may prove relevant to look at the numbers and see if the participants split out more because of the subject matter as to the numbers who did and did not complete the survey, or was it a lack of time, or a lack of desire to participate.

Table 2

Gender of Participants (n=48)

Gender	*n*	*%*
Male	21	43.8
Female	27	56.3

Years Teaching

The years of teaching (at any school) were broken into five year segments showing 16 teachers who have taught between 0-5 years; eight teachers who have taught 6-10 years; five teachers who taught 11-15 years, and 19 teachers who have taught 16+ years. This is a good spread of teachers based on the experiences of the faculty as a whole.

Table 3

Years of Teaching (n=48)

Years	*n*	*%*
0-5 yrs.	16	33.3
6-10 yrs.	8	16.7
11-15 yrs.	5	10.4
16+ yrs.	19	39.6

Certification

As was mentioned previously there were 48 teachers who completed the survey. 26 were academic teachers, 15 were certified special education teachers and seven were career and technical teachers employed by the school.

Table 4

Areas of Certification (n=48)

Certifications	*n*	*%*
Academic	26	54.2
Special Education	15	31.1
Career and Technical	7	14.6

Interview Results

The prime investigator who conducted the individual interviews was surprised at how many people volunteered and were willing to share their experiences. The first two who volunteered from each group were selected so as not to pick people based on any previous information about the teacher's usage habits.

Academic Instructor Interview 1

Prime Investigator- PI

Interviewee-I

PI = What are your perceptions or attitudes to the way that we're changing our in-service day, our professional development?

I=First of all, I like seeing other teachers present ideas because I think if you strive to be a good teacher then a lot of the things you do you can't claim as your own but it's just a melding of other teachers' great ideas and take them and make them your own. Part of this is you're going thru college and learning certain strategies that are already in vogue in the capitol area when I was in college doing my placement. …the only time there was disconnect was when I actually graduated and got a job in another state. And even there they weren't doing the same professional development but it was amazing to see the connections.

PI= The vocabulary was different but the actions were the same

I=The ideas were the same. But what's good I think at this point when we all understand what the research based strategies are and we become more competent and ultimately, it's time to say ok, what are teachers doing that works within the framework, which is what we're trying to do.

PI= Explain what you mean

I=In the math department; we share things that work and that's really helpful. Certain teachers are a wealth of worksheets, knowledge, and different strategies and ideas and I've picked up a lot of stuff from them…just different ways to think about teaching. And some of it you use and some of it you don't use but if we aren't exposed to it and having that time to collaborate with teachers in an in-service setting, we'll never have that opportunity.

PI=What do you think about – in some of the literature I've read – they say that some teachers not wanting to be a part of professional development because they feel like somebody is saying they're being remediated. Do you feel like that or do you feel any attitude…

I=I see the attitude. One of the biggest things I see is there is disconnect between the way people were educated and the way people are now educated. And you talk to anyone over thirty or so – I take that back – half the staff members – there seems to be a big age gap – you have teachers who've worked here for five years or less, and a ton of teachers who've been here for fifteen years or more. The problem is in that time things have really changed in college level education. I

came out of college and a lot of my peers came out of college knowing things were changing and prepared for change and understanding that that's education. And there are many teachers here that have not been in college for a long time and don't have a good concept or grasp of the fact that it's not remediating – it's helping you become a better teacher, but they don't see it that way. And the philosophy of "this is the way we've always done it and I don't understand why we have to change it"…that's something that …three years into and that's something I can't speak to. There's still a certain level that, rightly or wrongly, you have to earn your place in the building. So it's not for me to say someone's right or wrong, it's for me to say I'll do what I can to become a better teacher. And it ultimately comes down to the teachers themselves. But I do think that the younger the teacher, the more apt and willing to change and grow and just be understanding of the change because in our professional career, that's what happens. We are mostly student and teachers – when NCLB came down and all the changes –so it's changing something, whether it's the statewide curriculum or basing technical school scores on NOCTI then PSSA – that's not a big deal for me – ok, I can adapt and adjust. That is a big deal for people who have been doing it one way for twenty years.

PI=Is there anything else you'd like to share?

I=I like the direction that we're headed with programs we've enacted. I think, year in and year out, the kids I teach, coming to school are better prepared, better

behaved and it seems like every year I get a better batch of students. It's nice to see them growing and I think we do a lot of thing right and I hope that somebody someday will recognize that we do a lot of things right and give us the credit for it.

Academic Interview 2

PI=Essential Question (EQ) – do you post them or do you start your lesson with them; do you use those?

I=For health classes this year we started something new. I have been in the past using EQ but this year they have a composition book. [We] had gotten a bunch of these so we're using them and each day there is an EQ on the board, and the EQ is either the central question for the lesson or its review question. Like today, we're going to have a speaker, so tomorrow it will be about what they learned from the speaker. We will either go over it right away or we'll come back to it sometimes it's tied in so if they're watching a video they have to go back and answer the question with information they got from the video.

PI=So would you say it guides your instruction or summarizes it?

I=Yeah, I would say and the kids are definitely waiting for it each day. In fact, sometimes people will volunteer to put it up on the board so it's a good strategy.

PI=How about graphic organizers?

I=Yeah, we've always used those. Those are particularly helpful for kids who are in the IEP (Individual Education Plan) range, but it's good for all of them. We put our notes on outlines and then we have other handouts and so forth that we add to the other information as resources and even when we collect folders we do an organizer where we organize everything in order so it's easier for the kids.

PI=So you're actually using it to guide what reading assignments they have or questions that keeps them in order.

I=Right, and sometimes it highlights some of the other materials.

PI=Ok. Activating strategies – do you do any "do-nows"?

I=Yes, I used to do "do-nows", and I still do a few of them, but with the EQs they pretty much have been the "do-nows" for me because that the first thing the kids do is when they walk into the room – they grab their folders and grab their EQ book and they respond to the questions. So that gives me time to organize what I have to do and talk with some kids who have to do work and so on and so on. It's a "do-now" pretty much every single day.

PI=Does that help some of the students with key vocabulary?

I=Yeah, each time we do a new lesson and I give them their learning map, their vocabulary's at the end so we go down and we go through some of the vocabulary and it's words that we definitely hit when we get to the lesson itself.

PI=What about collaborative pairs?

I=Yeah, we do that. Specific assignments are just for that in mind. I've done a couple things where they'll work on something individually and then get in their group and then they'll actually go from their group into another group and go around to see what the other groups have done.

PI=Like a roundtable…

I=Yeah, and my elective health is pretty much all project oriented and like this last topic we were doing in first aid, they had to actually do a lot of their own organization. Two projects – they had to assemble what that they thought had to be in a first aid kit and they had to actually, between the seven of them, they had to come up with a list and then I made them either seek out the supplies or make the supplies. I had a kit and they had to put them in or explain why they put it in the kit. And then I gave them an actual resource handout that showed a typical kit and then I brought in my first aid kit and then Lil, (the School based EMT) came down and actually showed them what was in the trauma kit. Then the second part of the integration was they wrote out what they wanted to know about being an EMT, and then she came down and did a presentation on what a typical EMT does and what her role is here and she expanded on her experience and why she started. Then as a follow-up EQ – the first EQ was what do you want to know and the second EQ was what you thought of the presentation, what impacted you the most about her presentation. So we did that. Then the second project, they

just finished as of yesterday. They had to look thru the first aid handout topics and they had to pick which ones they wanted to research then went up to the library and they researched with graphics and so forth and they put together a first aid booklet. So that's what they just did yesterday. So that was totally student-oriented which is what that elective health is supposed to be more of.

PI= One of the main things that I'm trying to find out in the study is from the teacher's point of view, what are your perceptions or attitudes towards research based instruction?

I=I think it is so much better than before, because it was true – if you buy into the method and you started using it, then all of a sudden there was something bigger and better and, you know, you're supposed to be doing this so your concentration went from that to learning something new, which in essence wasn't any newer than what we'd done. But I think once you get people onboard and they develop their plans and they feel comfortable with them, and then you get the new teachers kind of using whatever they're learning and a lot of them are learning this right from the get-go. I think you have a more cohesive group of people working together and communicating on the same track. And the kids know what's going on. You know, they've been at least doing this for a period of time now that it's not something new and it's not something they're doing in this class and not doing in this class. Everybody's doing pretty much the same thing. I think the reading level has come up; I think the kids are attempting – if you ask

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the kids to read orally in class – I think most of them are volunteering to do it.

I've seen that change. They're not as reticent about sitting there not doing

anything. I think overall kids are speaking out a bit more; not afraid to volunteer.

I think it's brought about a lot of good changes.

Special Education Instructor Interview 1

P1=Do you use essential questions?

I=Yes, every day.

PI=Are they posted?

I=Yes they are and they are also on my power points.

P1= Do you find they guide your instruction?

I=They guide my instruction.

PI=And do you use them for summarizing?

I=On occasion…when I remember but they're there.

PI=Do the kids expect them?

I=Yes they do. They look on the board every morning now. I didn't think it

would work but it did. If there isn't one there, they ask me where it is.

PI= What about graphic organizers?

I=They're incorporated into one of the workbooks I have for my student so it's very easy to incorporate them; I mean they're already done for me, and they expect those now, too.

PI=Do you think that guides the instruction and the activities?

I=Not all the time. A lot of the time they go "ah, here's these graphic organizers, do we have to do this?" I mean, they know what they are and sometime they don't see the reason behind them – they don't see the connection.

PI=The reading strategies….do you tell a story to get the lesson kicked off?

I=I call it a bell-ringer activity; that's what I learned it as. It's the same thing; it's an activating strategy to get their attention, get them focused.

PI=Do you ever use key vocabulary to do that with?

I=Well, we use vocabulary every day. That's the first thing we do when we cover a chapter; we have to do our word-wall.

PI=That's the very next thing. So I'm guessing your word-wall is content driven.

I=The way we do the word-wall is I assign them each a vocabulary word for the chapter; introduce the chapter and then they have to find the definition in the context of the book and not look for it online, and then have a graphic/picture with it or a visual representation of that word.

PI=How about collaborative pairs or groups of kids?

I=It depends on the chapter or what we're studying. I don't think about doing it – it just sort of happens. I'll just say break up into groups, or break up into pairs. That's not always written on my lesson plan as such but you end up doing it.

PI=Do you think that helps engage students in their thinking, like taking a concept further than it would have if they had just listened.

I=I'm sure, and usually I try to pair up students that need some help, the other one can help them. For example, we're making change right now, so I have them working in pairs. One student, we all noticed, she was very uncomfortable with making change so one of the other students was perceptive enough to say "I'll work with her" because you're making her nervous. And he did better with her than with me.

PI=How about closure?

I=I try to remember to summarize; it's on the paper to do it, but often times the bell will ring before I get to it, but I try to.

PI= For the last three years, we tried to keep it to research-based strategies even though we've added some things. But by having the reflection meetings and giving people time to actually adapt their work to it, or modify their work, what would you say are your perceptions or your attitudes towards that?

I=Well, at first is resistance, just like anyone – well, here we go again – same old, same old, calling it something else when we already do that. But over the years, I

found myself doing a lot more of it automatically, without thinking about it – like the word-walls, like the Essential Question, and before it was a joke "did you do your Essential Question today?"…and now you just do it. Or a summary, summarizing strategies, vocab. I can see a difference; they tend to want to read more now. Not when I tell them to, but they will read the book more once they understand the vocabulary words we go over, or the concept.

PI=Do you see that attitude of teachers changing?

I=I don't see it changing, I really don't. But I do see people using this, whether they like it or not. I think maybe they don't want to admit that hey, I think some of this stuff works but you'll never hear them say it. But they do feel like they are being remediated.

Special Education Instructor Interview 2

PI=EQ – do you use them?

I=Yes

PI=Do you post them or how do you use them?

I=I put all the EQs for the week for every class.

I=I am still trying to work on more integration instruction. Especially with special education students sometimes the EQ isn't worded the way I would want to word it, or it's tailored to a topic that they might not understand or that we have

to spend more time on so that can change the scope of it but in general I try to follow the EQs and I try to make sure that they're updated weekly so that they're available for students.

PI=Do you ever use them at the end of a lesson to help summarize?

I=Yeah, we'll do tickets out the door on a regular basis. I can't say every day because for example, today I gave a quiz and that was an end of week quiz so it just doesn't happen often. But yesterday I gave a ticket out the door and I said today we answered a question how do we find the x and y intercepts. From there I said find the x and y intercepts, show me you can do this.

PI= How about graphic organizers?

I=I use graphic organizers a lot.

PI=What do you think it does for kids?

I=It gives them a guide. Because what happens is I try and teach the students – and this is my philosophy – is that if you're an auto mechanic you don't know how to fix every single car just from memory. You have a manual, so I gave them a notebook folder and I allow them to use that on anything that's graded in class stating that you put the time in to take the notes and to fill out the organizers and to keep the worksheets, therefore, you may use that as a manual to guide your learning as we do tests and quizzes. Now all the questions on the quizzes or tests or graded assignments are original questions something they wouldn't have in

their notes or notebooks, however, they have examples, they have vocabulary, they have concepts that they can apply because I really think that that is the direction that – I don't want to say education in general – but certainly the workforce as things become more specialized.

PI=You can't know everything. So it's actually teaching them that it's not as important to know something as it is how to find the something that you need to know.

I=Um, yes and no. I wouldn't agree that it's not important to know something; I would agree that it's important not to memorize something, it's important to understand the concept. Memorizing a concept doesn't do anything because what happens is if they memorize how to solve a graph a line that's y=3x+2 which is the standard form but I give them a problem a linear equation that's 3x+2y=6 and they've memorized only one way to graph it, then they've memorized the concept but don't understand the concept. So it's about understanding the concept, not just memorizing.

PI=Activating strategies – like giving them vocabulary ahead of time? Do you use them?

I=We do use the word wall. Before every unit I point out that those are the concepts we're going to be talking about. They do have vocabulary that they take down in their notes from the word wall, that's every day and every class we start off with a word problem and the reason we start every class with a word problem

is because reading is essential to all courses and real world math problems are word problems.

PI=How about collaborative pairs or group work?

I=I'm lucky enough to have a classroom set of whiteboards and we use them all the time. And we'll use them as pairs, we'll use them in little games, sometimes we'll break into teams before a test to do a review game – like review basketball or something along those lines. Sometimes we do flash cards like around the world just to practice and review basic math because of special education there are a lot of kids that are very reliant on calculators so we do a lot of collaborative pairs. I also will assign worksheets and ask them to work in partners or in my class because my classes are small I have two tables of six desks, or pods, and most classes are able to fit within the two tables. So I'll say at your table group, please work on these three problems and this side works on these three and we'll come back together and talk about them.

PI=How about closure? What do you do for your closure?

I=Usually, we will go and do a ticket out the door. We'll do a ticket out the door and then every Friday I usually give a weekly quiz. It's just a way of checking for understanding; making sure that they are following the process and directions and sometimes it necessitates a review.

PI=What are your perceptions or attitudes to the way that we're changing doing our in-service, our professional development?

I=I like it. First of all, I like seeing other teachers present ideas because I think if you strive to be a good teacher then a lot of things you do you can't claim as your own, it's just a melding of other teachers great ideas and take them and make them your own.

PI= What are your perceptions or attitudes of professional development?

I=I like there's always this perception that the teacher is a new teacher, just tell me what's new – don't tell me everything from the beginning. Or if you have people that are new, let them go to the longer one and then have the people who just need the brush-up on the new stuff.

Career and Technical Instructor interview 1

PI= Essential questions – do you post those?

I=Yes

PI=Do you use them to guide instruction, summarize – what do you use them for?

I=I refer to them and I sort of use them as a guide – yes, the guiding – remember this is what we're doing kind of going back to it, and then to summarize and use it as a ticket out the door kind of thing – if you can answer it…

PI=Do you use graphic organizers?

I=Yes

PI=What do you think they do for the students?

I=I think they help organize a very scattered mind in a very short time period.

PI= Do you ever find that they guide reading or writing or questions or assignments you'll be doing?

I=Do I use them like specifically? Yeah, I mean, I try to come up with when there's like a puzzle – I see the information so if it was like business law, we need to know about contracts and contracts need to have these seven elements. I use it in that sense. Some things really align themselves to that, but other time I think that if I try to use them and it's not naturally there, it becomes a jumble…it's just a piece of paper with some shapes on it. So I only use them when I really see the need.

PI=How about activating strategies? Do you go over key vocabulary or pose a question to begin?

I= I try to find something that will relate directly to them. So I guess that fits into the activating strategy even if it's a short media clip. For example, we saw a little clip of "The Office" because we were doing office safety. So it was funny; it was a little humorous, but it got them thinking about immediately about what could go wrong in an office because if you think about – you know, you think of an office as generally being safe. So it's sort of the hook, I guess. We only preview

vocabulary; we do some of those things, but I try to do some things that catch their interest.

PI=Do you use word walls?

I=I do

PI=Do you find those content driven?

I= I do

PI=Do your kids refer to them at different times?

I=They'll look at where the word was if it changes; it's funny, sometimes I'll point to them while we're talking and I'll just point to a word as I'm saying it and they'll do that too and say – pointing to the wall.

PI=How about collaborative pairs, or using groups of students; do you do that?

I=Yes

PI=What do you think it does for students when you do that?

I=I think there's safety in number for kids, and I think a lot of times they're intimidated by the idea of something but when they're allowed to work with another person, it just kind of gives them the security of if you don't know it maybe I will and we'll get there together.

PI=How about in closing, when you're summarizing a lesson – what all do you use to summarize your lessons?

I=I always go back to the Essential Questions of whatever the lesson was and say this was the point, here's what we wanted to accomplish and kind of ask them do you feel we've accomplished it, do you know these things now so they're sure of self-assessing. But I sort of summarize what was accomplished during that time.

PI=Do you find that it defines your expectations for homework or the next lesson

I=Every week I start out with what the week is going to look like – a snapshot –I send that in an email to them and then everyday there's a breakdown – since we have the three periods – how we're going to spend the time. It's a general – sometimes we go beyond whatever – but it's a general idea so they know when they might have a natural time for the break, and they know what they can look forward to and since time is of the essence.

PI=Do you have any feeling, perceptions; attitudes that you feel toward the professional development of research based instructional strategies?

I=I think that you always have to be open minded as an educator and willing to let things work instead of always seeking for its demise and I think especially in education because there was this new buzz word, newest craze, and I only been in for seven years and have already gone thru two this is how were going to do it; now THIS is how we're going to do it and this was frustrating having gone thru it

only twice but I can't imagine going thru it ten times but if something is going to work, we have to always remember our goal doesn't change – it's all for the kids – so I think incentive instead of dwelling on the negative.

PI=Some teachers feel that in-service training is remedial that they are being shown how to do something right because they are doing something wrong, do you get that feeling of I'm in remediation?

I=I never feel that I'm directly being remediated or something like that. I think that as a whole, education is -- we're at a loss from the top down because the result is not where we want it to be and the kids aren't learning the same way; there's something going on whether is societal or who knows. I think it's our whole spectrum, we're all scrambling to figure out what we can do to get the kids up to this level and proficient and achieving and everything else. So I feel like we're all on the same page and in-service is just part of that. I think with some of the smaller in-service opportunities where staff is training, I feel like it's an opportunity to learn something new and a new tool to add to my toolbox. So, no, I don't feel remediated. I just think it's constantly changing; you can't be stagnant using new skills, and it's easy to become stagnant because you're doing the same things every year.

Career and Technical Instructor Interview 2

PI=We will start with Essential Questions – do you post them?

I=Yes

PI=Daily, Weekly?

I=Daily on the Smart board

PI=Do you feel like it guides your instruction, kind of brings you back to things

I=It keeps me focused

PI=At the end of the lesson, do you refer back to it with the students?

I=That's probably my weakest area. I do at times, but not always. I always refer to it at the beginning but forget at the end.

PI= Essential Question –are they for the teacher, are they for the student, are they any good?

I=I think the students like knowing what they're going to do each day, what the plan is for the week. They like that; they like the idea of knowing what we're going to do tomorrow or what we're going to do today. They like the fact that I'm going to put up the schedule, you know, what we're going to do each day. But I don't think they've gotten the connection between the EQ and their learning. They haven't been able to put it to use – there's that disconnect there. But for me, I like it because again it kind of guides – you know, I have two questions I'm doing today; this is part one and this is part two and I know where we're going for the day.

PI=What about graphic organizers?

I=I use them

PI=Do you think they guide instruction, student thinking?

I=No

PI=Can you explain that a little bit?

I=Students want to just get to the answer. They don't want to know the process of getting to the answer. So they're very reluctant and do a lot of moaning and groaning about graphic organizers especially in the writing process. But what I've learned and what I've started doing is instead of doing the graphic organizer and then just going into the paper, I stop them right there. My goal here is to get them to use graphic organizers and to see the usefulness in them because they don't. So I started this with my tenth graders just because I think then by the time they get into eleventh and twelfth grade, they'll be more used to them.

PI=So you think that actually will help them, to guide them in doing more writing or reading, in answering questions after a while

I=Yes I do. And I think it will also get them used to the writing process and the pre-write. They think that once they write it then they're done. So I have to get them way from that. And I have to get them away from saying "oh, do I have to write it again?" They think that because they have to write it again they've failed.

So for me, I got to get them thinking no, you didn't fail because there are all these mistakes. That's part of the writing process, and that's what I'm really trying to re-teach and rethink their thinking process.

PI= How about activating strategies? Do you use them in your classroom to get the kids started?

I=I have them do "do nows", probably four or five days a week, either a question they have to answer or sometimes it's a little activity that they have to do. A lot of times they have a composition book and they have to answer questions or a vocabulary sentence. I never make it a long thing.

PI=So you do use it to preview key vocabulary

I=Especially key vocabulary

PI=Do you think it helps your slow learners to kind of

I=It helps my ADHD kids to settle down. I use it for settling down and getting into the class.

PI=What about word walls? Do you use word walls at all?

I=I do but – they're up there – to be honest, you want honesty – they're up there. But I don't really refer to them a lot.

PI=Are they content-driven when you put them up or are they more generalized?

I=Generalized because I teach so many different students that I haven't found a way to – you know when you're doing four preps for four different classrooms, I haven't found a way to get them all up.

PI=Ok. Collaborative pairs – working with them in groups – how's that work?

I=My kids do a lot of collaborative pairs. They'll say can we work together – they even ask me for it.

PI=Do you think that engages students?

I=Oh, yeah, and my seniors do a lot of peer editing. That seems to be something that they really like doing. Instead of having me read it all the time, I say go ask one of your classmates and they do a lot of peer editing especially with their senior project.

PI=Closures – do you use closures in trying to summarize the lesson?

I=Oh I'd love to because I talk so much the bell rings before I finish. Again, I have sticky notes on the door and different kind of things. It's probably not one of my strengths, but I like them, I just have to time myself better. I'm still on one of my tangents of the bell ringing.

Summary

Based on the information that was shared in each interview the major themes were defined by the research based instructional topics used in the table.

The professional development has certain "look fors" by an observer in a classroom but the interviews were asking conducted to draw out teacher comments and perceptions. Based on the teacher comments certain themes emerged and are stated in the table.

Table 5 Common Themes of Interviews

Topic	Look Fors:	Teacher Comments	Common Themes
Essential Questions:	___ Posted ___ Guides instruction ___ Used at end of lesson to assist summarizing and gather evidence of learning	They are posting the essential questions. Students are looking for them. They are leading instruction.	The essential questions are becoming important to teachers and students and are a frame of reference for the lesson
Activating Strategy:	___ Activation strategy to start student thinking ___ Previews/ teaches key vocabulary	Teachers are using the strategies to preview prior knowledge Teachers are using key vocabulary to begin the lesson.	The activating strategies are becoming a point of reference for teachers and students to share prior knowledge and key vocabulary.
Collaborative Pairs:	___ In large group lesson, uses numbered heads in pairs to distribute summarizing/ practice ___ Students actively engaged /thinking	Students are used to being paired up to help one another and other groups learn. Students are peer coaching and helping one another learn.	Creative Chaos- Teachers are controlling the classroom by having students work together to get to higher thinking skills.

Graphic Organizers:	___ Guides instruction & student thinking ___ Guides writing extensions ___ Guides reading assignments & questions	Students are not always happy to use the graphic organizers. Teachers are using them to create study guides and reference resources for students.	When using the graphic organizer it must have a purpose and be age appropriate. Students must understand its use.
Word Walls :	___ Content driven ___ Visual representation well organized, easy to use, graphic	The word walls are being used during instruction but students may or not be aware of their resource value.	For word walls to be used in secondary classes; the teacher must make the word wall interactive so it becomes more than just wall art.
Closure:	___ Summarizes lesson ___ Guided by essential question ___ Reviews expectations for next lesson/ homework ___ Organizes for dismissal	While necessary, closure seems to be a missing element. Teachers run out of time and proper closure is not done for each lesson.	The strategy of closure needs to be taught so teachers see the importance and are given tools with which to make sure each lesson has a proper closure and there is time allocated for this strategy.

Attitude and Perception	Teachers are adapting and adopting the research based strategies	Younger teachers seem to be trained from college on the newer strategies but there is adjustment for the veteran teacher to include the strategies.	The trainers need to explain to different groups how the strategies will enhance the teacher's classroom instruction and program.

Reflection Group Results

Focus Group 1

The following is information derived from three focus group reflection meetings. Each group is made up of volunteers who willing consented to be recorded and have in part or whole sections of their conversation shared as part of this research. There is no distinction as to age, gender or certification within each group. The prompts used to create the conversation were created as part of the Learning Focus Reflection Meeting protocol of allowing teachers who have been trained in the research based instructional strategies the chance to meet with administrators and other teachers to share information and ask for assistance during the adaption and adoption of the strategies into their teaching repertoire.

PI- Prime Investigator

P- Voluntary Participant

> PI=So when we look at the Focus Group reflection prompts, how have the Professional development of research based instructional activities experience, knowledge, new skills been useful in your classrooms with your students? Can anyone give any examples that they've been useful, not useful…?
>
> P=I think the framework that's been used in driving instruction lately; it gives everybody a clue where they're going; the kids need to know where they're going and I think that's swell. Other than that, I don't think there's anything new to it;

it's the same thing just under a different name that we've been doing for twenty year just organized differently.

P=But I think continuity-wise, kids get used to a certain format and so at least even though they're going from teacher to teacher, they have an expectation to a degree, so….that's coming from the elementary school level. I know our kids are all in classrooms with research based strategies in elementary school, and they're used to it, and so it's a comfortable thing so you don't have re-establish work every single time.

PI=How many of you do "do-nows"? How do you think they work?

P=I think it's very effective; I've been doing it for seventeen years. It works, that's why I still do it.

P=They come in; they settle down; they get started; I can actually start class with them just walking in without rallying them up

PI=I think that's interesting. You say you've been doing it for seventeen years and at the one Pennsylvania Department of Education sessions this past fall (2009), the trainers were asking what are some activating strategies you can do and I said a "do-now", figuring everyone in the room would know what I meant. And I had half the people turn to me and say "a do-what?" And that scares me that… here's something that…it's a research-based strategy…because it gets the

kids on task, it gets them oriented, and there are schools that still are not using it because it's not been the "initiative of the week".

P=I was late one day putting it up on the board and by the time I got back to my room from when I had left the class, [a student] had put up on the thing the EQ and had something else on the side, but was already waiting for it, and had already started to put it up saying "where is it?"

P=I had something similar to that where I had been at a meeting that ran over and I come back to my kids sitting down, working on that, waiting for the next thing, and they know that what's they're supposed to do.

P=I've been substituting in your class and the first thing they do is they come in, they grab it and they sit down and work on it, and they just, you know….

P=It's automatic! It's their expectation. They know to start and then they're ready for whatever's supposed to happen next.

PI=How do you think it impacts on student performance? Do you have any evidence?

P=I think the fact that they have structure; many of our kids don't have structure and discipline at home. Structure doesn't occur in most of their lives so it's kind of nice they come and they know what's expected of them, they know what they're doing – it works for them.

P=I think so many of our kids use it well and their behavior's so well because they know what's expected of them and they just do it.

PI=Do we have any evidence that we're seeing it besides just visual evidence? Are you seeing it in testing, or maybe graphic organizers, or maybe foldables?

P= I know I've been using the strategies, and when I look at the results of the kids today, my kids are succeeding. My kids are performing well. Now if that's luck of the draw for what kids I have in class, or effective strategies, something's working properly.

PI=How is that affecting your in-class testing?

P=I have less than 1% of my students are failing.

PI=I think when you look at the big picture, your in-class testing is really important – I know our goal is the PSSA(Pennsylvania State System of Assessment), but I think the in-class testing is where you're seeing the rubber hitting the road, is student achievement improving, and then list the indicators.

P=I know in health it's really hard to see changes; most of it's in behaviors outside of the school. We're hoping they're not using drugs, and hopefully they're practicing abstinence. We can't really gauge that in school. We give them the information and try to get through to them and hopefully it affects their decision-making and eventually helps them.

PI=What would be an example of a "do-now" or some kind of procedure that you would do, like one of the graphic organizers that you would use in phys Ed? Can you use anything like that in phys Ed? In other words, like for a game or something, could you make a foldable, or have you made a foldable or something to use?

P=We use diagrams. We don't necessarily do (foldables)… the students really don't like to do things. Right now we have badminton and I know there are visuals that show what lines on the court to use and stuff like that. We've done bowling where we have example cards on how to score, but the students aren't physically doing those kinds of things right now. When I worked down in North Carolina, they had like a kind of "do-now" where after they were changed, they came out to the gym and they had different stations set up so the kids came out and did jumping jacks, push-ups, stretches and stuff so when the teachers came out, they were in their sweats, already warming up. So that was their form of a "do-now" so the teacher came in and took attendance and went right to exercising.

PI= How about, did you as a teacher increase your knowledge through any of the training that we've been doing over the last three years?

P=I think the terminology is the major thing. People just have a new name for something or the way they want you to – like the "do-now" – that would be something I would do in an introduction right off the bat; you know, some activity to fully engage those kids in some type of activity – graphic organizers have been

exposed to them – and there are different ones since we have the big book and maybe find different ones that are more applicable to certain situations or information or terminology.

P=I noticed from last year to now, my friend and I will drop names of what we're doing and what not, and she goes that's not what we call it but the way they're doing it is a lot more complicated than the way we're doing it. The way we do it is structured for us, and it's easier to get my stuff done and get myself organized this way as a teacher. It goes from the lesson plan all the way down.

P=I love it how all the teachers are supposed to be following the training kits and really have this system down and they know what's expected of them.

P=They do a journal entry every time they come into class. I've never called it a "do-now" and I'll say ok, let's get our journals out, and someone wasn't paying attention and another kid said "c'mon, we have to do our "do-now" now", so they are using the terminology even though I don't necessarily officially call it that.

PI=How have your behaviors or practices changed?

P=My first day of each unit is we put all the vocabulary up on the board, and everybody picks a word and puts it on a piece of paper and they decorate it. I don't tell them what the word means or anything like that. They either decorate it with previous knowledge or just fun colors and that's our word wall. See what they already know and it's a fun way to decorate. I honestly don't use graphic

organizers that much because we do a lot more of the hands-on reports; I never got into the graphic organizers.

PI=And that's important because one of the things we keep saying is "adapt", don't "adopt". And some things work for some people, and they don't for others.

P=I think that was the big thing about this whole professional development training we have done because once everybody got used to the idea that this is just a program and put it all together and we're really doing all the same things that we were doing just under a guide, I think it's been more receptive and people have actually been more enthusiastic about it as opposed to "oh God, here's a new way and we'll throw these papers away in two years.

P= I spend a lot more time with strategies and that's something I wasn't big on because I'm more of a content-oriented person. I mean well, why in the long run is this activity introducing a unit helping students and that's one of the things the professional development has reminded me to do that I forgot when I was taking my education courses for my undergrad. It gives you friendly reminders about what you were taught, and if you don't use it for four years, you don't use it you forget it. And other people say if you don't use it on a weekly or monthly basis, you forget about it. To me, the research based format is a reminder in a tool box and you have to get it out. It's also a lot more summarizing with the reading and writing integration and I think the kids' writing improved dramatically in the first quarter with having lab reports and having them summarize their data with lab

experiment. Some of those kids have come a long way in the first quarter this year I've noticed.

PI=I like how you called it a box of tools, and that's what I think research-based strategies are – it is just a box of tools you find work for you and your kids. And some groups of students they're going to work for and other groups they're not.

Focus Group 2:

PI=How have the professional development activities experience, knowledge, new skills been useful in your classrooms with your students?

P=Well, you know with the training it just kind of reminded us of like more rapid organizers and more activities that we could use, and being expected to use it, it has become like second nature. You know, those of us that have been incorporating it we kind of use the terminology with the kids and we use the activities with the kids, and when you tell the students "ok, everybody draw a ven diagram", they all know what to draw. You don't have to give them the visual first because at this point the students are familiar with it. So it's kind of nice that it's integrated throughout the school because it becomes a standard and the students are aware.

P=You know, I walked away with a lot of valuable things that going through training – just being more cognizant of how to present things that students will understand the concepts, using more graphic organizers, although, admittedly I

don't use them as often as I could or should probably. But I think even more importantly I do use pairs a lot in class now. Even the whole idea of the distributive practice is always done in pairs throughout a lesson which, you know, I did a lot of questioning with kids but never thought "hey, maybe I should pose a question, let kids talk about it" and then regroup and answer the question together because they can bounce ideas off of each other. And I've seen a lot of growth in some kids, especially like my IEP students. This year I have four sections of inclusion and I think those kids really benefit from that kind of learning.

PI=How about with the research-based strategies? Do you see it making any impact on student performance?

P=Ironically, the one thing out of all the things that you just mentioned that I think has impacted student learning least is the word walls. It's always surprising to me when we're talking about things in class, how few students actually look to the word wall to see if they can find things that might answer the question, or things that jog their memory. And in my class because it's a history class, it's not just vocabulary, its content vocabulary, too – names and events and things like that. They still – a lot of them have a hard time remembering that there's a section on the whiteboard where those terms are there. And everybody in the room should be able see them, and I've checked to make sure of that. It's maybe not the best place but still the kids should all be able to see them.

PI=It's like having a walking word bank; it's always there if you wanted it.

P=It is! It's even there for tests, and I don't take it down for a test. It's amazing that I only ever see, out of a class of 30 kids, maybe one or two kids actually look up at the word wall. And they're all grouped together conceptually. So if we have Concept 1 and it's the entire Renaissance, all the Renaissance words are all together on the board and they're kind of near where we've talked about all those things. And they still just really have a hard time with that. But I think the other kinds of things work out well – they write everyday in my class; I'm really into infusing literacy. They write every day, they read every day in class, and they have to do it in class so I know they're reading. And they always have activities centered on those things. So, I think these things do work; I think the kids are doing better because they are reading – they're forced to.

PI=So, what evidence would you say you can show.

P=I would say test or quiz grades, especially for some of my kids that are maybe a little bit on the lower tract – IEP students and students that don't have high achievement are because of actually reading things in class and we're going over it immediately. It's translating into higher test scores and that coupled with the ability to answer questions with a partner and go over homework before we go over it as a group to make sure they have all their answers filled in and check their answers, and I know that I can call on anybody in the room because in theory they should be all done.

P=Yeah, I have a lot of similar experiences, but the word wall for me is something different. We use the word wall, and we use it in a modified way because I have like three different word walls – one for my three different levels. And my students, occasionally when we're doing activities they'll look up. But for tests, I take them down, and the quizzes and I can see my kids looking up like what happened to the words? Oh yeah, they're not supposed to be there 100% of the time. But like when we give out those learning maps and we go over the essential questions, like to me it's a trigger to remember to ask that essential question three or four times in a lesson. And I can see the students taking out that learning map – some of them on a daily basis – because I have a little trick – I put my vocabulary words on the back of the learning map so I have a running list. So for me it kind of serves two purposes and I'm not trying to be sneaky about it but you know it's working for the kids. And with the word wall thing, I also have an online textbook so I may not refer to the word wall everyday because sometimes I'll just have the online textbook vocabulary up there and I'll kind of use that as a word wall. So I kind of modify whatever it is to whatever I have at the moment. But I can tell that, like she said, the kids are more likely to be engaged in participation and feel more comfortable doing it. When I do my little readings in Spanish, I'll say ok now tell your partner what the main idea is, and I'll have them tell each other the main idea in English so that at least they know they got the idea of it and they can transfer that information.

PI=I think you brought up a really important part in one of the things I think we've always stressed with these research-based strategies is "adapt", don't "adopt "and some things that work for me may not work for you. In different subject matter, something might work, some things may not. One of the things I constantly talk to the administrators about is there's a difference between a classroom that is having classroom management problem, and a classroom that has creative chaos. And if you're doing collaborative pairs, and you're doing things that are good strategies, your class is not going to be a quiet classroom. That's a big difference; that's not classroom management – in fact if anything, if you got a creative chaos it's more work for the teacher because you can't be sitting at your desk – you've got to be all over the place making sure ones are talking to twos and all that. So it brings a whole new light to how we teach which is different from when we all took classes and the teacher stood in front of us for forty-two minutes. But our kids realize you can only do so much and then there has to be an activity. I think that's what the research strategies have brought to us. In fact, someone said in one of the earlier focus group is that she felt that the research strategies just give her a bigger box of tools.. It loosens you up from having to do everything boom, boom, boom, which I think kind of makes it nice. So when you see your students achieving, what are some of the indicators – are you seeing them showing achievement, improvement, using the strategies and what would you say your indicators might be?

P=Well other than your basic quiz scores or test scores, if I ask them to write something out, I might actually see students creating their own graphic organizers. And to me, that's ok; they've mastered it and it's helpful to them be they're willing to use it on their own without you having to tell them this is what I want you to do. And they pick and chose what works for them.

P=I would agree, and this is where I fall short a little bit. It's just a matter of managing my time. This is only my second year with this content, so I'm still trying to get the content down for instruction. But ideally, where do I see my classroom in a few years? I see examples of different graphic organizers up on the walls so that the students can think ok, we've learned how to do that, and they have learned how to do a couple. But I just don't have examples up on the board, but they'd be able to look up when they're organizing to chose which way they are going to organize it because that's an important part of thinking about how you best learn – it's picking the right graphic organizer or the right strategy for the right situation. That's ideally where I think kids should be. All these kids are coming from schools where they're already supposedly using research based instructional strategies, so they are becoming more and more comfortable. I know the ninth graders now are mostly comfortable with using strategies. In terms of them learning, it's hard to know how they're doing in my history class compared to any other history class they've ever taken. And are they improving? Yeah, I've seen the kids, you would see the improvement in more so are the kids that on the lower end and I've seen some of their grades come up over the course of the

marking period. On the first test that they all had, there were very few kids that failed, which to me shows that as many kids that earned 100, get 100. And that just shows that they got out of the lessons from that unit what I wanted them to get out of the lessons from that unit.

PI=How often do you use – and I know it's one of the terms we throw it around a lot – "do-nows"? It's interesting that something we've been doing for a while in different classrooms, but at a conference I was at just last week, I mentioned that as an accelerating thing that we sometimes do is a "do-now" and three quarters of the room looked at me like what are you talking about.

P=That's really surprising because when I started my student teaching, we were doing exits – exit slips were like the ticket out the door – were very popular and that was the early 1990s. I don't remember incorporating the warm-ups until I got here. I just thought that's one more thing for me to do. But once I started using it, I figured out a system and then, you know, it's to the point like after the first couple weeks of using it, the kids would know – they'd walk in, they'd go over to their particular bin, they'd grab their warm-up and they'd start working on it. So depending on the groups, it takes them a little bit more time, but if you use it every day, it's a habit, their routine – they come in and they do it, and there's no question about it. And then when you're about to start going over that warm-up, and they forget for whatever reason, they're like oh I forgot my warm-up and they'll go up and get it. So there's not much…you don't have to give them many

90

reminders because it's already part of their routine. And that's very helpful because they're doing that while I'm taking attendance and maybe checking homework and that gives me that little bit of downtime so it's one less thing for me to have to stop class for and take care of the business aspect of it.

PI=How did you, as a teacher, increase your knowledge with these various research-based strategies? You know, you hear a lot of people say I learned how to do that ticket out the door back in the 1990's but I think sometimes we forget some of those things we've learned in the classes. Has any of this brought forth new knowledge? Has it changed something that maybe you did years ago that now you're doing differently…making things more effective?

P=I think for me it kinda like puts it all together. Even though I knew some of the stuff, I really wasn't consistent about doing it. But now because it has been the expectation, you need to do it. Well I'm the kind of person that, oh, I was told I need to do it so I'm going to do it. For me it hasn't been hectic. I went in and tried to use the tool box and educate myself – what is it that I need. So other than being attentive to the sessions themselves and incorporating this stuff since day one, I will say that I have gone out of my way to make it better for myself.

P=Yeah, it's not just the in house professional development that brought a lot to the table. It was the Penn Literacy Network training that I went to that really opened my eyes. One of the reflection papers that I wrote for class talked about how when the PA Literacy framework came out, I was sent to training for one day

and we came back and had reflective groups at the high school and middle school. And at the time I thought it would be really good to do more reading and stuff with the kids….and maybe it's just where I am in my life, I see more of a connection and feel more of a responsibility for being able to do my part. Now Social Studies, I had to read and write a ton for the history major; and I know that we can do those kinds of things in my classroom. And seeing the strategies and being forced to come back to school and actually try the strategies out, be reflective about the strategies and use them. And like I said, reading and writing marries very well with what we do in my classroom, and I would like to do more of it and different kinds of it but I don't feel pressured to make it all perfect at one time. It's a work-in-progress. And what I'm hoping is that other people in my department see this and become curious and want to do more of these things too.

PI=So this leads into our last question – did your behaviors and practices change in your classroom? And if so, how?

P=Uh, yeah. They changed tremendously! I paid more attention to what I'm doing with the students. Not necessarily the content, but how am I delivering the content. It's a more delivered approach to what I do than what it was before I came here.

P=I agree! There's more of a conscientious theme going into lesson plans – did I include a graphic organizer in here today or am I asking my essential questions. You see yourself thinking about it because you're trained and you know that the

kids are expecting to hear some of those things and see some of those things so it becomes second nature to double check.

PI=I thought it was interesting; As you know my daughter graduated last year and is in college and she was having trouble with some of her math and I walked up to her room last week and her last high school teacher did a lot of foldables…and for her college class, she was doing a foldable; because in her mind, that's how she was taught to do those steps. That to me just showed me just how transferable these skills are. These aren't just educational strategies that we use in the classroom, but they're also study strategies we can then pass onto our students that they can then use in the future.   The ven diagram that you mentioned…like I said, two years ago I never heard that word before and now I hear it/see it everywhere. When you find a research-based strategy that seems to be working, add it to your tool box.

Focus Group 3

PI= I'm going to start out with how do the activities, experiences or knowledge or the new skills that you've learned through the various research-based strategies. So what I'm asking here is how will the activities, experiences, knowledge or new skills – how have they been useful in your classroom with your students and how has it impacted your students?

P=We are using the word walls; it has helped some of our students as far as when they're studying or getting ready to take one of the examinations. They can

review that and it does help them get a better score. And also what it does, I think, is it's there constantly in their face, so it's a constant reminder.

P=In my opinion, I think it works best whenever the students know what we're doing and why we're doing it. The effectiveness of the word wall is if the students know what it's there for and why it's there. Instead of just being a room decoration it's more of an information center for them. Or when we're doing "do-nows", or we're doing charts, it's best if they understand why they're doing it and if they're introduced to it, than throughout the year. So I think if a little bit of time is taken what it's for, I think they can be a very valuable tool.

PI=So are we saying then that the research-based strategies are impacting student performance we are seeing. What's your evidence, what could you show me as evidence that having a word wall there, having a rubric there, having a foldable, different things like that. What evidence could you show somebody?

P=For us would probably be the examination results and also their performance in the shop. When they see it – it's there constantly for them so they're not having a chance to forget it – you know, out of sight, out of mind kind of thing. We always have it there.

PI=How about when we think about with Reading across the Content Area. A lot of time we're doing acceleration using pre-vocabulary, you know, teaching them some of the vocabulary prior to actually teaching something. Do you see a difference in your students?   Do you see evidence that previewing that

vocabulary – or in your case it might be formulas or something in math class – do you see a difference for your students?

P=What we've seen, I think, is they're retaining the information a little better especially if it's something they've never seen before, like an aardvark versus not seeing it. We've noticed that a lot of the kids when we have reading assignments, they're skimmers – they don't actually read the entire paragraph, they'll just skim over it. And if we can focus on some new words or phrases, it'll help them retain a lot better.

PI=How about with the math?

P=I think it's almost like an investment to take a little bit of time in the beginning. Because I've found that when you have that upfront knowledge you're providing for them, that they will then, in the long run, you know a lot of the first marking period was reviewing some of the skills that they were going to need for Algebra 1. Now by the end of the marking period the students were saying why we are only at chapter two, shouldn't we be farther along? They're right except now for the second, third and fourth marking period, we can get through four chapters instead of just two or three chapters because we've taken the time to invest those activating strategies and that background knowledge that's then going to provide a scaffolding affect in a sense for the later marking periods.

P=I also think that the longer everyone is on the same page doing the same concepts, the better it's going to be because I see students now and when we first

did this, some of them didn't know what an exit slip is or a ticket out the door or a "do-now" or an activating strategy or collaborative pairs. They start to understand that. Ok, most teachers if you put a "do-now" on the board, the kids will come in and they know what a "do-now" is and they'll do it. They know what the procedure is and that goes across all classes.

PI=So it almost helps gives a structure we can follow

P=Continuity

PI=I like that word "continuity"

P=Continuity; it helps the kids and I'm thinking about in LF all the different graphic organizers that we use in English. It helps them to be organized.

P=We use a lot of "cause" and "affect" down there (Auto Mechanics) when they're working on vehicles and things like that. If we see this problem, then what's causing it, what's going to happen, and things like that? And as far as previewing with vocabulary and things like that, I think when you do that I really believe you have a better level of understanding when you're going through the lesson. Like you said you have continuity, everybody's on that same page. When you mention those words, they can use that term when you're asking questions.

P=And the students are involved – auditory learners. If we have the word wall and they see the word, that's visual. We have the graphic organizers that are visual. So we're presenting it in a lot of different ways.

P=But they can talk about this and I think that helps.

PI=I think we've gotten away a little bit from people being concerned about classroom management and realizing that you can have creative chaos. When you have collaborative pairs and you have groups doing things, that are creative chaos; that you're in full control of what's going on.

P=It causes the students to be more accountable for their own education, you know whereas a lot of it used to be teacher driven and the teacher was doing and doing and doing. Now the students know if they come in and see a "do-now" up on the board, we don't have to tell them because they know when I come in the room there's going to be something for me to do up there on the board. And if I see something up there, I need to get it done and get it done right away. So it does help with classroom management as well be there you're keeping the students busy on things that are keeping them engaged which is going to keep them engrossed and become accountable for their actions, they get to decide how much education they want to get. And the teacher doesn't have to watch over every single step.

P=I also think, on top of that, whether they say they like it or not, kids love structure. And that's what this provides – a framework structure for every classroom in the building, not that's it's always the same – but they do – kids like structure, they need structure and when you have that in a school and they see it in

a classroom and in a career and technical program, that everyone is doing the same thing, that builds structure.

PI= How has that increased your knowledge – or has it?

P=I don't think it's not only better for the students what we're using, but the continuity that we have as teachers and instructors every year has been the same and I think knowing that we're not going to be jumping the following year just relaxes us all a little bit. We're all trying to use the same strategies and we're not jumping around and I just think that's better for the program.

P=I think it takes about a year for people to learn a new program. And once that year's over, you can actually practice it, perfect it, improve it, and mold it. You can manipulate it, whatever the setting may be, whatever the class might be. There are different options and different ways to do things. But if you don't understand it, you're not able to do that. So going past one year, now that we understand it, we can actually do something with it as opposed to hey; we finally learned it, we finally got it, and what do you mean we're changing it? So I think it's just that learning curve now that we have it, let's just go with it.

P=And having people in the building, our co-workers that have been trained, I know who to go to if I have a question—they're right in the building. I don't have to call outside, I don't have to make an appointment with someone outside— they're right with us.

PI=So do you believe your behaviors and practices have changed? Have you seen yourselves evolve in the last three years by picking up some of these strategies that maybe you still teach a little bit like you were taught but you're starting to implement some of the newer strategies and being a little bit more open to trying something when you're sitting at lunch and someone tells you, I was sitting here and Shelly told me about this, this and this and it really worked—I'm going to give it a try.

P=I think we've all evolved and came around

P=It's kind of like acting—you have to learn the lines first, memorize them and then you can add personality to it

PI=Someone said in one of the focus groups that she said all you did with this was give us a toolbox and now we can go around and collect as many tools of research strategies as we can and continue filling our toolbox because the research is going to continue.

P=I had a student get mad with me earlier this week because I have two different classes—I have an algebra and then I have a financial math immediately following it. I was talking with a student at the end of the algebra class and didn't have a chance to write the "do-now" up for the financial math class and they came in and immediately a student was like "hey [teacher], don't we have a "do-now"? Where's our "do-now?" I was like hold on I'll get to it and they were actually getting frustrated because that is their routine, which is the structure and

whenever that little piece of structure was thrown off, he was upset by it. And

you can actually see, which I guess is more qualitative data, you can actually see

it in the behavior of the kids, the talk of the kids that there is a difference in being

consistent with the same strategies year after year after year. And the students are

starting to see it too. And it's a good thing I think.

Interviews and Focus Group Consensus

Based on the information from the interviews and focus groups made up of volunteers the following ideas emerged based on the research questions. The teachers' perceptions of the professional development program were strong in that the teachers favored the direction of using research-based strategies. They appreciated the time to develop lessons and the openness to work with trainers and administration to create proper lessons. The teachers' attitudes regarding adapting or adopting the instructional strategies appear to be very good. The teachers seem to understand that it is still the teacher's decision when and how they use the strategies and with which classes. The researcher believes this to be a big factor motivating teachers to include the strategies in their instruction; there is no wrong way to implement the strategies. Teachers are talking and sharing ideas and trying out new strategies each and every day and the school administration is right there to aid in the implementation. In summary of the findings from these interviews and focus groups the conversations were very positive; but knowing that these participants volunteered their input with the researcher, who also is a school administrator, one must question the validity. That is why it was important to conduct an anonymous survey where teachers could express themselves in both answering a set of questions and also being allowed access to comment on the implementation of the research- based strategies.

Table 6 Reoccurring themes from interview and focus groups.

Themes	Teacher input	Student Outcomes
Perceptions	Teachers see the professional development as a framework or toolbox that allows them to have many strategies to use in instruction.	Allowing for differentiated instruction per student and class as needed.
Attitudes	Teacher feel empowered to adapt and adopt strategies to fit individual class lessons.	Students are being given credit for prior knowledge, learning key vocabulary prior to lesson and having various tools to help them learn more efficiently.
Motivation	Teachers are empowered to try new strategies, they are receiving positive feedback and being given the time and space to try new teaching techniques to better meet their students needs.	Students are being given many chances to learn from various strategies to meet their individual needs.

Survey Results- Data Analysis

The following is the information from the voluntary survey. The information became more relevant because the survey is broken into three areas: 1) is the professional development effective, 2) is the program content relevant and 3) is there organizational support and context? The three open questions asked for input in the following areas: 1) participant outcomes: 2) organizational outcomes, and 3) student outcomes. In the following tables the researcher will share the data collected and then summarize the findings

School Organization- is the professional development effective?

Table 7

Question 1

There has been research shared with participants to suggest that the content of the staff development program will increase student learning.

Group	Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree
Academic	7	8	8	3	0
Special Education	4	4	3	2	2
Career and Technical	0	3	4	0	0

Note: The respondents answered with a mean of 3.58.

Table 8

Question 2

Participants in staff development activities are involved in determining the topics and content.

Group	Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree
Academic	2	8	13	3	0
Special Education	0	6	7	1	1
Career and Technical	0	3	4	0	0

Note: The respondents answered with a mean of 3.31.

Table 9

Question 3

The program includes a variety of activities designed for adult learners (active engagement, use of prior knowledge, working in teams, real world applications, and choice of activities).

Group	Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree
Academic	1	11	10	3	0
Special Education	1	5	6	3	2
Career and Technical	0	2	3	2	0

Note: The respondents answered with a mean of 3.30.

Table 10

Question 4

The program includes continued support and follow up (frequent and ongoing reflection sessions, problem solving implementation problems, expectations for implementation-not one shot events).

Group	Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree
Academic	4	11	8	2	0
Special Education	1	6	5	3	0
Career and Technical	0	3	4	0	0

Note: The respondents answered with a mean of 3.53.

Table 11

Question 5

The program expects and can demonstrate changes in teacher's classroom practices.

Group	Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree
Academic	4	16	3	3	0
Special Education	0	8	5	1	1
Career and Technical	0	2	5	0	0

Note: The respondents answered with a mean of 3.58.

Table 12

Question 6

The program provides for challenging but not overwhelming changes in knowledge, skills, attitudes, and beliefs of participants (teachers).

Group	Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree
Academic	5	11	8	2	0
Special Education	1	8	4	2	0
Career and Technical	0	0	5	0	2

Note: The respondents answered with a mean of 3.48.

Table 13

Question 7

Staff is receptive to professional development activities- they recognize the need; readiness has been developed.

Group	Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree
Academic	0	7	12	7	0
Special Education	0	4	7	3	1
Career and Technical	0	3	1	3	0

Note: The respondents answered with a mean of 2.98.

Table 14

Question 8

Teachers are observed randomly to determine their use of an innovation and the innovation's effect on students.

Group	Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree
Academic	0	6	11	8	1
Special Education	0	4	4	6	1
Career and Technical	0	4	3	0	0

Note: The respondents answered with a mean of 2.92.

Table 15

Question 9

The learning climate of professional development activities is collaborative, informal, and respectful.

Group	Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree
Academic	2	15	9	0	0
Special Education	1	6	4	3	1
Career and Technical	0	2	5	0	0

Note: The respondents answered with a mean of 3.50.

Table 16

Question 10

Staff development includes activities other than "training workshops".

Group	Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree
Academic	3	10	12	1	0
Special Education	2	5	6	2	0
Career and Technical	0	3	4	0	0

Note: The respondents answered with a mean of 3.52.

Table 17

Question 11

Staff and administrators are aware of the "implementation dip" (things often get worse before they get better.

Group	Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree
Academic	4	4	14	3	1
Special Education	0	5	6	2	1
Career and Technical	1	2	3	0	1

Note: The respondents answered with a mean of 3.21.

Table 18

Question 12

All staff development training activities include theory, demonstration, practice with feedback, and coaching.

Group	Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree
Academic	2	8	14	2	0
Special Education	0	5	8	1	1
Career and Technical	0	2	3	2	0

Note: The respondents answered with a mean of 3.25.

Program Content

Table 19

Question 13

Have researchable proof that it increases student learning?

Group	Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree
Academic	4	7	9	4	2
Special Education	2	3	6	2	1
Career and Technical	1	3	3	0	0

Note: The respondents answered with a mean of 3.32.

Table 20

Question 14

Have a research base similar to your situation, community, and context?

Group	Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree
Academic	2	8	8	6	2
Special Education	1	3	3	7	0
Career and Technical	0	3	3	1	0

Note: The respondents answered with a mean of 3.04.

Table 21

Question 15

Have relevance to the site and participants see the need?

Group	Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree
Academic	0	10	11	5	0
Special Education	1	2	6	5	0
Career and Technical	0	3	3	1	0

Note: The respondents answered with a mean of 3.13.

Table 22

Question 16

Prove to be compatible with other practices that are in use?

Group	Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree
Academic	4	13	8	1	0
Special Education	1	6	4	2	1
Career and Technical	0	2	5	0	0

Note: The respondents answered with a mean of 3.55.

Table 23

Question 17

Align with other site based needs and instructional practice s?

Group	Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree
Academic	3	12	9	2	0
Special Education	0	6	6	2	0
Career and Technical	0	2	4	1	0

Note: The respondents answered with a mean of 3.45.

Table 24

Question 18

Look at student needs through a process of the collection and analysis of students/school performance data action research process?

Group	Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree
Academic	3	10	7	6	0
Special Education	2	3	7	2	0
Career and Technical	0	4	3	0	0

Note: The respondents answered with a mean of 3.40.

Table 25

Question 19

Allow for local "mutual adaption and adoption" to ensure implementation and institutionalization?

Group	Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree
Academic	4	8	10	4	0
Special Education	4	6	6	2	0
Career and Technical	0	2	4	1	0

Note: The respondents answered with a mean of 3.36.

Organizational Context

Table 26

Question 20

A norm of experimentation exists which permits educators to try on new instructional practices and be protected if they fail in initial efforts.

Group	Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree
Academic	4	10	8	3	1
Special Education	0	3	7	3	1
Career and Technical	0	4	2	1	0

Note: The respondents answered with a mean of 3.30.

Table 27

Question 21

A norm of continuous improvement exists which sets by example that learning about teaching is never finished. Everyone continues to refine their skills and knowledge.

Group	Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree
Academic	3	10	9	3	1
Special Education	0	5	9	0	0
Career and Technical	0	5	2	0	0

Note: The respondents answered with a mean of 3.45.

Table 28

Question 22

Leadership advocates, encourages, and supports staff development through incentives and resources.

Group	Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree
Academic	1	9	12	4	0
Special Education	0	3	6	2	3
Career and Technical	0	3	3	1	0

Note: The respondents answered with a mean of 3.09.

Table 29

Question 23

Staff development programs are in concert with the school's strategic plan including the mission, goal, and purposes.

Group	Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree
Academic	4	13	8	1	0
Special Education	2	4	7	1	0
Career and Technical	0	6	1	0	0

Note: The respondents answered with a mean of 3.70.

Table 30

Question 24

Administration and faculty have studied the change process to assist in planning and implementing staff development.

Group	Strongly Agree	Agree	Somewhat Agree	Disagree	Strongly Disagree
Academic	3	7	12	4	0
Special Education	1	4	4	4	1
Career and Technical	0	5	2	0	0

Note: The respondents answered with a mean of 3.30.

The findings represent that in most of the questions the responses are in the Somewhat Agree to the Agree column. There were three questions ommitted from the original survey as they seemed repetitive or not nessicary to the context of the study. The questions ommitted were: 1) Teacher and student outcomes for staff development activities are clearly and publicly stated, 2) The school can determine its own staff development activities rather then having uniform activities ocurring through out the system (districts), and 3) Staff development is funded by a line item budget.

Full List of Comments of the Open Ended Questions

Question 1

What will be different as a result of the staff development program? (Participant Outcomes)

Hopefully; each participant will increase their ability to be an effective teacher promoting student learning and well being. Also, each teacher should always examine what they do and not be afraid to try new things. That is my only reservation with completing units for learning focus. We submit a unit; and hopefully they update that unit. I am a teacher who loves to try new things and see if they work. From year to year or semester to semester, I may change the manner in which I teach. I think by completing a unit it may promote stagnation among some educators.

More paperwork for teachers.

I'm hoping that I will become better as a teacher. I'm not very keen on doing something just to do it. I want something that is going to work in OUR environment with OUR type of students.

Through the staff development program we, as teachers, should have new strategies for teaching that we can implement within the curriculum and lesson plans in order to engage in a more successful classroom experience for all students.

Teachers will hopefully be empowered to implement researched best practices into their daily lesson plans and overall curriculum. There has been some resistance, but overall, I believe that

individuals are working towards the goal of improving their teaching methods and setting them in line with the staff development programs.

Terminology used by instructors in all academic and vocational areas will be similar. Every teacher now has more instructional tools than ever before at the ready.

More flexible lessons and units.

The manor of presentation will change. This ultimately results in a complete revision of working curriculums in some cases, and the improvement of curriculums in others. The end result is a balance that ideally seems to push all towards a median level of educational standards.

Teachers will be better able to assess student needs. Teachers will be better able to engage students in the learning process. Teachers will be able to evaluate effectiveness of new or adapted strategies in their own classrooms.

some participants will being using differing % of the material presented

Teachers will all be on the "same page" when delivering educational services to the students.

Have a larger base of new /different instructional techniques to try out.

New vocabulary and new forms for lesson preparation.

I feel very little until the professional development has a building, selling, tangible rather than test and teach, test and teach, component. Our kids want to see and build as do a lot of our

teachers.

Requirements met with, for observations by administration.

All curriculums will be similar in written format. Existing curriculum must be totally rewritten to make this happen.

Students feel that they are a "stake holder" in the process.

Greater self-understanding and application

I really do not know.

Staff will engage in more research-based learning strategies.

Ways to teach so learning can take place.

Hopefully, I will be exposed to new knowledge or strategies that will help me engage and excite students in my content area. Students have such diverse needs, that it is really important to consider how to effective reach each and every one of them.

Teachers will begin to look at their teaching styles to see what works and what doesn't work and change their style as needed.

Learn new teaching techniques.

Teachers will work together to achieve integration units and build understanding of other curriculum.

Learning is never-ending.

I like them as a chance to hear and see what other teachers are doing and how I can use them in my own classroom.

This program offers a review of what I learned about while I was earning my teaching certification. It also holds teacher accountability for the knowledge they teach students.

We know what our expectations are and how to complete them.

Staff throughout the building will be utilizing many of the same strategies allowing for consistency through the grades and collaboration among staff

Teachers will have additional strategies that they can use in classes.

More teaching strategies are learned so that the delivery of instruction can vary to meet student needs.

Hopefully, there will be consistency among the curriculum groups and that will filter down to the students.

Difficult to understand question. Are you relating this question to today's in-service? To LFS?

As a result of the staff development, teachers (I) will know what strategies are effective and will use them in my classroom

Individual teachers should use more research based strategies when designing instruction and should be aware of integration practices.

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Frequent sharing of best practices enhances classroom instruction.

Question 2-

What will be different as a result of the staff development program? (Organizational Outcomes)

Hopefully; it will change teacher behaviors and attitudes to be more productive in reaching all students achieve their maximum potential.

More paperwork for teachers.

I'm hoping our school will be taken more seriously. I'm also hoping administration will be respectful enough to deal with the teachers who aren't doing their part rather than having blanket consequences that affect the stress level and up the work load of all staff members (even the ones who are doing their job correctly)

Test scores and overall academic achievement should improve.

Overall, the school's academic achievement on certain tests, such as the PSSA math, reading, writing, and science tests, will improve. Students will also see an overall increase in expected and learning knowledge, as well as an increased emphasis on vocabulary and formative assessment.

Departments (math, science, English, etc.) will work more closely together, and share their creative successes.

As an organization, we appear to be heading towards a finite point. As our approach changes, we are meeting roadblocks that limit our growth with regards to high-stakes testing. As a

school, we are forced to deal with the results of other educational institutions. With this in mind, it seems that whether or not we implement a new system of development, there will always be those that slip through the cracks.

There will be more consistency in instruction between different academic and C&T areas. There will be more and easier communication among staff members, more sharing of best practices.

The school will adopt some of the program materials until the next show rolls into town

Focused change will be fostered and strengthened.

That all teachers will have lesson format broken down simply into a start/activating technique, a middle/content and an end/summarization.

Different criteria for evaluation of instructors.

I feel very little until the professional development has a building, selling, tangible rather than test and teach, test and teach, component. Our kids want to see and build as do a lot of our teachers.

Most teachers will be demonstrating the same basic techniques. This is done because they are required not because they believe in them.

Hopefully, all staff will feel as though they are on the same team.

Students will learn in a more comfortable environment.

Greater staff cohesion

Possibly more structure.

Create programs to allow students to be successful in learning.

Staff development should seek to help teachers enhance instruction in areas where we are struggling to provide adequate instruction to our students. Not only should these activities strive to help our most needy students develop skills, but even the students at the top need remediation. The staff development program has the potential to help develop a standard set of instructional skills and practices among the school staff to assist them in reaching all students.

The school community will be better organized with many teachers using the same techniques and styles.

The entire faculty will implement the procedures learned.

Teachers will have a better understanding of scope and sequence of the different technical and career areas.

Adapting staff always needed.

I think it will be a chance for the administration to be able to see what the staff is looking for and then we can start to use some of the same practices across the building.

This program offers accountability for teacher and students. It also yields higher expectations.

The school as a whole will be stronger and more intelligent.

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fluency and adaptation

All teachers will talk with the same phrases. Teachers will be willing to work with each other for higher achievement.

improvement in test scores, development of a common "language" among all staff- academic and vocational

Again, the structure of the curriculum will have a consistent framework.

As a result of the staff development program, the organization will be more effective in teaching & more helpful to the students.

Administrators should watch for these strategies in use and support those teachers as they attempt new strategies.

We will get off the school improvement list!

Question 3-

What will different as a result of the staff development program? (Student Outcomes)

The kids will be exposed to a systematic learning experience as they complete graduation requirements. Hopefully, it will increase time in which students are actively engaged in learning; ultimately raising the students' scores on national, state, and local assessments... Help the kids reach their goals...

More paperwork for teachers.

I'm hoping the students will understand the seriousness of their education by seeing that the teachers are trying their best to teach them rather than make them film experts. If the teachers aren't giving 100%, the students will not be giving 100% either.

Students will have a more vested interest in their skill development and they will improve their grades and test scores.

Students will be a better expectation of the learning process. Students will be able to answer the essential questions and will grow and develop their vocabulary. Hopefully students will also develop better reading and writing strategies, as well as an increased emphasis on collaborative and team pairings.

Students will be more comfortable in their learning environments as they are more structured. Students will have more opportunities to be engaged and involved in the content of the instruction.

Greater understanding of material and class goals.

Students are, for the most part, presented with a more organized approach to learning. While this does not guarantee any form of success, the students will at least be comfortable with the shared atmosphere of the school.

Students will be more focused on the learning environment. Students will be aware of the consistency with which instruction is delivered throughout the school. Student achievement as a whole will be enhanced.

some students will make use of the materials some students will see the same material formats in many classes and become jaded some students will make no use (benefit) of the program materials

Students will all be comfortable with the concerted efforts of staff to be consistent in instructional delivery.

Improvement in Student learning.

Teachers will be attempting to present lessons in a different "format" than previously.

I feel very little until the professional development has a building, selling, tangible rather than test and teach, test and teach, component. Our kids want to see and build as do a lot of our teachers.

Very little. Some of these required methods will help a few students in some subjects.

Academically, I feel that LFS is very instrumental in giving purpose to the need to learn the information. Vocationally, I feel that the purpose has always been evident.

Students will be able to share responsibility with the instructors.

Improved test scores

I assume they feel scores will increase on PSSA.

Students will learn and retain more knowledge.

Students to succeed in learning.

Student outcomes with appropriate staff training should be increased achievement on all assessment measures, both formal and informal.

Students will be better aware of what is expected of them.

Students will adapt to the new teaching techniques and increase their test scores.

Students will be given more opportunity to identify how academics affect their every day technical areas.

Student will reach success.

Hopefully they will start to see how teachers are using the same language and activities and already know the expectations that go along with them.

Results should ideally be higher scores of state assessments (PSSA's) and future Keystone

exams.

It will allow the students to have more structure in their learning environment.

knowledge base of instruction methods

Hopefully, students will achieve at a higher level.

Hopefully student achievement and comprehension will increase.

The overall consistency of our teaching format and expected goals will be experienced by our students.

As a result of the staff development, student learning will improve.

Students should be more confident in their learning which should translate as higher assessment scores and more learning throughout the school.

Students will increase reading comprehension and be better prepared for the workforce.

The findings of the open-ended questions gave a clearer picture of the success and frustrations of the participating teachers. It became evident that while the structure was welcomed; teachers are still concerned about change and the addition of more paperwork.

Summary

The consensus from the data collected is that teachers do understand they are not being remediated but all education is ongoing. Teachers appreciate the fact that they have resources available such as the reflection meetings and in-school trainers and

mentors. Teachers are seeing that they need to share and adopt research-based strategies; there is also an understanding that some strategies work in certain circumstances and with certain classes. Teachers must be willing to adapt and adopt new teaching strategies. In summary, the teachers spoke of understanding that once they have the structure in place the actual paperwork falls into alignment.

Chapter V.

Summary, Discussion, and Recommendations

The study examined the implementation of research-based educational strategies in the areas of curriculum, lesson planning, instruction and assessment in a comprehensive career and technical school located in Central Pennsylvania. This study closely examined the attitudes and perceptions of teachers regarding the implementation of the instructional strategies across all curriculum areas including English, math, science, social studies, foreign language, additional electives and 26 career and technical programs.

Research Questions

The study examined the following research questions:

1. How did the teachers perceive the professional development of the research based instructional strategies?

   Based on the findings of the research, teachers are very busy with duties and paperwork but need to have professional development to refresh and revitalize their teaching methods. The professional development of research based instructional strategies has given the teachers who are receptive to adapting and adopting new strategies the ability to create better instructional lessons that meet the needs of their students.

2. What were the attitudes of teachers as the adapted and adopted the instructional strategies to their instruction?

This question speaks to the receptivity of each teacher to avail themselves to using new or refreshed research based strategies. Each teacher must decide their purpose in the classroom and decide if they are willing to leave their comfort zone and begin to adapt their instruction and adopt new strategies to better meet the student's needs under their tutelage. Based on the findings, it appears that the certain teachers are more willing to change their teaching methods when they have received information as to the proof of the strategy working in other classrooms. Other teachers have more difficulty accepting a new strategy and realizing they have the ability and autonomy to add the strategy to their instructional resources. It is only when monitored by administration do they make a cursory attempt to include the strategy into lesson plans and even then it may not find its way into the classroom where it could benefit teachers.

3. What factors are motivating them to actively include the strategies in their instructional models?

Some teachers are motivated by the intention of helping student achieve proficiency. Others are motivated by seeing the instructional strategy work for fellow teachers and realizing the adaption and adoption of the research

based strategies help them to be a better teacher and help students learn more effectively. Still others are only motivated by constant monitoring and requirements required by the administration of the school. As with any initiative whether in education or business, the population is split by the early adopters, the people who will wait and see if it works for someone else and then begin to implement the initiative and then there are always a percentage of the population that are not receptive to change and only begin to adopt the initiative to meet new policy.

Summary

As was stated in the beginning of the paper the purpose of the study was to examine the implementation of research-based strategies in the areas of curriculum, lesson planning, instruction and assessment in a comprehensive career and technical school located in Central Pennsylvania. This study closely examined the attitudes and perceptions of the teachers and the implementation of the instructional strategies, by addressing all curriculum areas including English, math, science, social studies, foreign language, additional electives and 26 CTE programs. To do this the researcher surveyed teachers, interviewed and immersed herself in the discussions at three Focus Group Reflection meetings. Based on the research findings, teachers are beginning to understand the need for the professional development and it is important to keep to a

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basic structure; where new research-based instruction can be added and adapted to fit the particular classroom or technical program.

Most teachers were and are willing to share new strategies with each other and will present the information or go into the classroom and model the behavior. It appears the teachers who have entered the teaching field especially in academic and special education in recent years are coming into the field prepared to change their ideas of what works. The career and technical instructors have more problems implementing the strategies. This may be due to the career and technical teachers are new to education and are learning to teach while teaching. The amount of time to create the lesson using the proper strategies takes time they just do not have so they may need additional time for implementation to occur.

The findings show that the instructors that were surveyed interviewed, and part of the Focus Group Reflection meetings did for the most part value and perceive the professional development to be effective and useful to them in developing and instructing their lessons. As with any initiative, you will have early adopters, a few who will wait and then move towards the initiative, and then you will have your resistors. It was evident in the survey open ended question that under the anonymity of the survey, that there are still resistors that are holding out to see if the initiative of research-based strategies continues or another new program will be implemented. In the discussions of the interviews and group reflection meetings where participants were with the researcher, there seem to be overwhelming support for adapting and adopting the strategies; the

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comments and the answers to the survey also found that most of the teachers were of the attitude that the addition of the research-based strategies were good practice.

Based on the findings, the researcher concluded that the ongoing reflection meetings help teachers to clarify and receive input on the adoption and use of the strategies. However, teachers still need constant feedback from administrators that they are implementing the initiative in the correct format. Dr. Kenneth Gray, a retired Penn State Professor taught the researcher a long time ago, "that in any profession an employee respects what the boss inspects" and as evidenced in the survey and open ended responses; the teachers are still feeling the need of feedback to constantly motivate them to include the strategies and find places to use the strategies in their lessons.

Discussion

This chance to allow teachers to talk and share was very enlightening for the entire staff. The changes in our teachers and our administrators as to listening to each other and understanding that not all professional development is coming from the top down but is coming in from various graduate classes, conferences visited, and new research-based strategies shared between teachers has been wonderful. The change of expectations has been very welcome. Teachers are given time to design curriculum, instruction and assessments that use the research-based strategies. Information is continually shared with the school board and administrators, community. parents and students, that initiatives do not make or show change overnight but they must be

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implemented, adopted, adapted, reviewed and then perfected and this takes three to six years before the school may see the outcome from the changes.

However in this time of accountability, this is very difficult to explain to the legislature and even parents that as we are redesigning the world of education, we are also trying to keep up with technology and sometimes we don't have the student long enough to see the final outcome and change. The strategies that are being implemented in grade schools and followed up into the high schools have the best chance of survival and making a difference in our students. The problem remains that the clock is still ticking to 2014, when due to *No Child Left Behind*; all children are expected to be at the same proficiency standard. In reality the legislation does not give enough time and keeps changing the target so that teachers and students are not following the strategies and building upon them they are just looking for what worked in the neighbor school and immediately implementing it and expecting change tomorrow.

Education cannot continue to take the beating and in turn cause burn out of good teachers. There is mounting frustration on the part of the students and teachers, from the continuous testing and changing of the curriculums to meet the needs of the legislature and not allowing the needs of the students to drive the education for a well-rounded student. It is difficult for teachers and parents to stand back and see children losing out on a more culturally rounded education and be constantly reaching to meet standards and anchors that were designed by various groups to meet specialized targets rather then looking at each student's educational needs and aptitude.

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Recommendations

To truly see what strategies have made the difference and the time expended, future researchers may choose to follow a class through their education cycles and look at the data to constantly adapt and adopt the strategies to help the individual students. The need is there for the people who are making the end goals for students, teachers and administrators to look into individual classrooms. The answers are not in the replacement of teachers and administrators but to understand that the individual student's needs and goals need to be addressed to design an individual educational plan not just for special education students but for each student and have their advancement monitored. This will be time consuming but to fairly evaluate the teaching and instructional methods we must be willing to look closely at each student and design the instruction to meet his or her needs and goals. Schools must continue the data collection and refining of the strategies and keep records to show the progress of the students. The sharing must continue within schools but also be shared with other schools; educating children is not a competition but all educators should be working together to create a better education formula for all students.

School boards and administrators must look at individual classes, observe instruction and assist all teachers in implementing research-based strategies. Based on their findings, the administration may need to create additional training for selected teachers in various formats and develop individualized plans to help teachers learn to implement the strategies better. The Department of Education, both federal and state,

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must begin to look at the data; all students will not be proficient by 2014, so what changes are needed to be made, to prepare students for their future goals and needs and not some specified goal that is not obtainable by all. The answer is not in taking over the schools, but continuing to educate the educator to be able to deliver the proper education to each student. Then based on performance of the teacher after training and or retraining, the federal and state departments and teacher unions must give the school boards and administration the support and latitude to remove underproductive individuals. This will not be a popular or easy answer to the problem but will go back to the research that it is not the curriculum or the assessment that changes the outcome in student performance but what the teacher does and says in the classroom that matters in educating students. All entities' are responsible for that accountability, our Departments of Education, our colleges and our local school systems must join together to monitor the education of the classrooms. Furthermore all entities 'must realize the implementation and change will take time to show the final outcomes in student performance based on individual students' needs and goals.

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APPENDICES

Appendix A:

Please Note- The following email will be sent with the survey to all teachers of Dauphin

County Technical School:

"Good morning- I am asking everyone who has been involved in the Research-Based

Instructional Strategy training to complete a survey that will be on the DCTS website

under teacher log in as Professional Development Survey on Survey Monkey.   I will be

using the anonymous survey information to fine tune our professional development and

to examine the implementation of research-based educational strategies in a

comprehensive career and technical school located in Central Pennsylvania. This study

will closely examine the teachers and the implementation of the instructional strategies

by addressing all curriculum areas including English, math, science, social studies,

foreign language, additional electives and career and technical programs. I will be

conducting this survey in the fall/winter of 2009. Please take a few minutes to complete

the survey and comments- please do not put your name on the survey as I will be sharing

this information with our professional development team and the Dauphin County

Technical School administration. I am using a pre- made professional development

survey tool. Staff development is used interchangeably with professional development.

Information will also be used as survey data for a Pennsylvania State University study.

I will also be asking for volunteers to be part of recorded reflection group meetings and personal interviews. I will be sharing more information as I move forward to receive approval from Office of Research Protection at PSU and my doctorial committee as to any changes I need to make to any forms or procedures.

Appendix B

Why do this research:

Professional development is critical to the success of schools in this time of accountability for student achievement. Research has suggested that teachers tend to teach the way they were taught (Gardner, 1999; Jonassen, 1981). The purpose of the study is to examine the implementation of research-based instructional strategies in a comprehensive career and technical school located in Central Pennsylvania. This study will closely examine the perceptions and attitudes of teachers and the implementation of the instructional strategies in their classrooms by addressing all curriculum areas including English, math, science, social studies, foreign language and 26 career and technical programs. The school provides educational instruction to approximately 850 students from six consortium districts and four tuition districts that make up the demographical area of Dauphin County in central Pennsylvania. The geographical area served by this school consists of rural, suburban and urban communities. This study will closely examine the perception, attitudes, and activities of teachers while they implement the research-based instructional strategies in the instructional lessons in their classrooms. Data will be collected by a survey of the teaching staff, teacher interviews and summaries of focus group reflection meetings of staff utilizing various prompts to seek out information concerning implementation, perceptions and attitudes of the teaching staff. Due to the demographics of the school staff and student body, and the cross curriculum applications and implementation of the researched based instructional strategies, this

study can be the catalyst to provide a basis for future studies. This study can then be used

by other researchers affiliated with PSU to assist additional research to make adult

education/professional development more meaningful to teachers.

Appendix C

Professional Development Survey

Adapted from the Missouri Professional Development Guidelines for Student Success

Source: Guskey and Roy

Is the Professional Development Program Design Effective?

On a scale of 1-5, rate the school organizational context on the following components or characteristics.

Strongly Disagree   Disagree   Somewhat Agree   Agree Strongly Agree

1   2   3   4   5

1. There is research to suggest that the content of the staff development program will increase student learning.

               1   2   3   4   5

2. Participants in staff development activities are involved in determining the topics and content.

               1   2   3   4   5

3. The program includes a variety of activities designed for adult learners (active engagement, use of prior knowledge, working in teams, real world applications, and choice of activities.)

1   2   3   4   5

4. The program includes continued support and follow up activities (frequent and ongoing sessions, problem solving implementation problems, expectations for implementation-not one shot events).

1   2   3   4   5

5. The program expects and can demonstrate changes in teacher's classroom practices.

1   2   3   4   5

6. The program provides for challenging but not overwhelming changes in knowledge, skills, attitudes, and beliefs of participants.

1   2   3   4   5

7. Staff is receptive to professional development activities- they recognize the need; readiness has been developed.

1   2   3   4   5

8. Teachers are observed randomly to determine their use of an innovation and the innovations' effect on students.

<div align="right">1   2   3   4   5</div>

9. Teacher and student outcomes for staff development activities are clearly and publicly stated.

<div align="right">1   2   3   4   5</div>

10. The learning climate of professional development activities is collaborative, informal, and respectful.

<div align="right">1   2   3   4   5</div>

11. Staff development includes activities other than "training workshops".

<div align="right">1   2   3   4   5</div>

12. Staff and administrators are aware of the "implementation dip" (things often get worse before they get better).

<div align="right">1   2   3   4   5</div>

13. All staff development training activities include theory, demonstration, practice with feedback, and coaching.

<div align="right">1   2   3   4   5</div>

14. The school can determine its own staff development activities rather than having uniform activities occurring through out the system. (Districts)

1	2	3	4	5

Program Content

On a scale of 1-5, rate the school organizational context on the following characteristic or components:

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5

Does the content of your staff development program:

1. Have proof that it increases student learning?

1	2	3	4	5

2. Have a research base similar to your situation, community, and context?

1	2	3	4	5

3. Have relevance to the site and did participants see the need?

1	2	3	4	5

4. Prove to be compatible with other practices that are in use?

<div align="center">1   2   3   4   5</div>

5. Align with other site based needs and instructional practices?

<div align="center">1   2   3   4   5</div>

6. Look at student needs through a process of the collection and analysis of students/school performance data Action research process)?

<div align="center">1   2   3   4   5</div>

7. Allow for local "mutual adaptation" to ensure implementation and institutionalization?

<div align="center">1   2   3   4   5</div>

Organizational Context

On a scale of 1-5, rate the school organizational context on the following characteristics or components:

Strongly Disagree	Disagree	Somewhat Agree	Agree	Strongly Agree
1	2	3	4	5

1. A norm of experimentation exists which permits educators to try on new instructional practices and be protected if they fail in initial efforts.

<div align="center">1   2   3   4   5</div>

2. A norm of continuous improvements exists which sets by example that learning about teaching is never finished. Everyone continues to refine their skills and knowledge.

<div align="right">1   2   3   4   5</div>

3. Leadership advocates, encourages and supports staff development through incentives and resources.

<div align="right">1   2   3   4   5</div>

4. Staff development programs are in concert with the school's strategic plan including mission, goals and purposes.

<div align="right">1   2   3   4   5</div>

5. Staff development is funded by a line item in the budget.

<div align="right">1   2   3   4   5</div>

6. Administration and faculty have studied the change process to assist in planning and implementing staff development.

<div align="right">1   2   3   4   5</div>

Potential outcomes for staff development program

What will be different as a result of the staff development program?

Participant Outcomes:

Organizational Outcomes:

Student Outcomes:

Appendix D:

Informed Consent for Survey of Social Science Research

The Pennsylvania State University

Title of Project: POST-PROFESSIONAL DEVELOPMENT PERCEPTIONS OF

TEACHERS OF RESEARCH BASED INSTRUCTIONAL PRACTICES

Principal Investigator: Toni Arnold, Graduate Student

                                      6001 Locust Lane, Harrisburg, PA 17109

                                      717-652-3170 ext 7428, *tarnold@dcts.org*

Advisor: Richard Walter Ph.D.

                                      301C Keller Building, University Park, PA 16802

                                      814-865- 2133, RAW18 @psu.edu

Purpose of study: The purpose of this research study is to explore how in-service teachers who have received professional development training in researched based instructional strategies have perceived the training and the attitudes of the teachers when implementing the strategies.

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Procedures to be followed: Each Pennsylvania Department of Education certified teacher who has taught at the school for at least three consecutive year 2007-2010 will be asked to complete a voluntary likert type survey with three open ended questions. This can be done on any computer using the Survey Monkey website that will be found on the DCTS website. The survey will be made available for one month from the beginning of the survey.

Duration: The total duration will be 30-45 minutes to complete the survey online.

Statement of Confidentiality: Participation in this research is confidential. The data will be stored and secured in a locked cabinet in the Director's office. Your confidentiality will be kept to the degree permitted by the technology used. No guarantees can be made regarding the interception of data sent via the internet by any third parties. In the event of a publication or presentation resulting from the research, no personally identifiable information will be shared.

Right to Ask Questions: Please contact the PI Toni Arnold at 717-652-3170 ext 7428 with questions, concerns, or complaints about this research.

Voluntary Participation: Each participant's decision to be in this research is voluntary. They may stop at any time. Participants do not have to answer any questions they do not want to answer.

Participants must be 18 years of age or older to take part in this research study. If you

agree to take part in this research study and the information outlined above, please sign

your name and indicate the date below.

You will be given a copy of this consent form for your records.

_____   _____

Participant Signature   Date

_____   _____

Person Obtaining Consent   Date

Appendix E

On Sat, Sep 26, 2009 at 2:11 PM, Thomas Guskey <*guskey@uky.edu*> wrote:

Dear Toni,

You are certainly welcome to make any changes in the instrument that you want to suit

better your research interests. All that I ask is that you give appropriate citations to the

original source and, if possible, send me a copy of your results when your research is

completed to that I might cite your work in my writing.

Thanks for your consideration, and best wishes for your success.

Regards,

Tom

****

Thomas R. Guskey, Professor

College of Education

Taylor Education Building

University of Kentucky

Lexington, KY 40506

Ph: 859-257-5748

Fax: 859-323-3807   Email: *Guskey@uky.edu*

On Fri, Sep 25, 2009 at 1:51 PM, Toni Arnold <*tarnold@dcts.org*> wrote:

Dr. Guskey,

Good morning, I am a graduate student in a PhD. program at Penn State University. I have been completing research in the area of professional development and the perceptions and attitudes of the teachers based on their implementation levels. I have completed my course work and just finished the comps with my committee. It was recommended that I contact you to gain permission to review additional surveys that you have used, the validity information and if possible to ask permission to modify the 2003 survey that I have based my research on at this point. The problems that I am finding are that some of the questions are not gaining the information I am seeking based on looking at the implementation of the professional development of research based strategies. My goal is to complete my questions for interviews, survey amendments and observation protocol to share with the IRB for permission to move forward with this research. If I may have your permission to make the amendments to the survey, gain any insight into the validity of the survey and can answer any of your questions or share information to help both of us continue this search for knowledge of the professional development I look forward to hearing from you. Thank you for taking time to read this and consider my requests.

Sincerely,   Toni Arnold

Appendix F

Interview Form:

Dauphin County Technical School

Learning – Focused Monitoring for Achievement: "Look For" & "Ask About" 5x5's

Teacher:_____Observer:_____Date:_____

Essential Questions:	Graphic Organizers:
___ Posted	___ Guides instruction & student thinking
___ Guides instruction	___ Guides writing extensions
___ Used at end of lesson to assist summarizing and gather evidence of learning	___ Guides reading assignments & questions
Activating Strategy:	Word Walls :
___ Activation strategy to start student thinking	___ Content driven
___ Previews/ teaches key vocabulary	___ Visual representation well organized, easy to use, graphic
Collaborative Pairs:	Closure:
___ In large group lesson, uses numbered heads in pairs	___ Summarizes lesson
to distribute summarizing/ practice	___ Guided by essential question
___ Students actively engaged /thinking	___ Reviews expectations for next lesson/ homework
	___ Organizes for dismissal
Comments:	

Appendix G.

Informed Consent for focus group participation of Social Science Research

The Pennsylvania State University

Title of Project: POST-PROFESSIONAL DEVELOPMENT PERCEPTIONS OF

TEACHERS OF RESEARCH BASED INSTRUCTIONAL PRACTICES

Principal Investigator: Toni Arnold, Graduate Student

                              6001 Locust Lane, Harrisburg, PA 17109

                              717-652-3170 ext 7428, *tarnold@dcts.org*

Advisor: Richard Walter Ph.D.

                              301C Keller Building, University Park, PA 16802

                              814-865- 2133, RAW18 @psu.edu

Purpose of study: The purpose of this research study is to explore how in-service teachers who have received professional development training in researched based instructional strategies have perceived the training, and the attitudes of teachers when implementing the strategies.

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Procedures to be followed: The main investigator will conduct the same type of reflection group meetings using the same questions except participants will be volunteer members who are willing to answer and discuss the set of questions and have their answers and comments recorded for transcription. No names will be used to protect the identity of the volunteers. Focus groups will be recorded.

Duration: The total duration will be: 30-45 minutes for a focus group.

Statement of Confidentiality: Participation in this research is confidential. The data will be stored and secured in a locked cabinet in the Director's office. The recordings made during the focus groups will be kept in a locked cabinet in the Director's office suite only accessible to the research team until the study has ended and then the tapes will be destroyed by fire three years after the end of the study. Please keep in mind if you speak about the contents of the focus group outside of the group, it is expected you will not tell others what participants said. In the event of a publication or presentation resulting from the research, no personally identifiable information will be shared.

Right to Ask Questions: Please contact the PI, Toni Arnold at 717-652-3170 ext 7428 with questions, concerns, or complaints about this research.

Voluntary Participation: Each participant's decision to be in this research is voluntary. They may stop at any time. Participants do not have to answer any questions they do not want to answer.

Participants must be 18 years of age or older to take part in this research study. If you agree to take part in this research study and the information outlined above, please sign your name and indicate the date below.

You will be given a copy of this consent form for their records.

_____   _____

Participant Signature   Date

_____   _____

Person Obtaining Consent   Date

Appendix H: Focus Group Reflection Meeting Prompts:

How will the activities/experience/ knowledge/new skills been useful in your classroom

with students?

Did it impact student performance? What is the evidence?

Is student achievement improving? List indicators

Did you as a teacher increase your knowledge? How?

Did your behaviors and practices change? How?

Appendix I:

Informed Consent for Interview participation of Social Science Research

The Pennsylvania State University

Title of Project: POST-PROFESSIONAL DEVELOPMENT PERCEPTIONS OF

        TEACHERS OF RESEARCH BASED INSTRUCTIONAL PRACTICES

Principal Investigator: Toni Arnold, Graduate Student

                        6001 Locust Lane, Harrisburg, PA 17109

                        717-652-3170 ext 7428, *tarnold@dcts.org*

Advisor: Richard Walter Ph.D.

                        301C Keller Building, University Park, PA 16802

                        814-865- 2133, RAW18 @psu.edu

Purpose of study: The purpose of this research study is to explore how in-service teachers who have received professional development training in researched based instructional strategies have perceived the training and the attitudes of the teachers when implementing the strategies.

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Procedures to be followed: Teachers will be asked to volunteer as part of a one on one interview with the PI. The researcher will be asking for two regular education teachers, two special education teachers and two career and technical teachers to volunteer for these interviews. These interviews will be recorded.

Duration: The total duration will be: 30-45 minutes for the interview.

Right to Ask Questions: Please contact the PI, Toni Arnold at 717-652-3170 ext 7428 with questions, concerns, or complaints about this research.

Voluntary Participation: Each participant's decision to be in this research is voluntary. They may stop at any time. Participants do not have to answer any questions they do not want to answer.

Participants must be 18 years of age or older to take part in this research study. If you agree to take part in this research study and the information outlined above, please sign your name and indicate the date below.

You will be given a copy of this consent form for their records.

_____   _____

Participant Signature   Date

_____   _____

Person Obtaining Consent   Date

Appendix J:

The Office for Research Protections (ORP) has reviewed the eSubmission application for your research involving human participants and determined it to be exempt from IRB review. You may begin your research. This study qualifies under the following category(ies):

Category 2: Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observations of public behavior unless: (i) information obtained is recorded in such a manner that human participants can be identified, directly or through identifiers linked to the participants; **and** (ii) any disclosure of the human participants' responses outside the research could reasonably place the participants at risk of criminal or civil liability or be damaging to the participants' financial standing, employability, or reputation. [45 CFR 46.101(b)(2]

COMMENT: PLEASE LOG INTO PRAMS TO FIND YOUR APPROVED DOCUMENTS THAT YOU ARE EXPECTED TO USE. ALL DOCUMENTS HAVE BEEN UPDATED PER THE DISCUSSION WE HAVE HAD OVER THE PHONE REGARDING REQUIREMENTS.

Please also remember that you have been instructed to consent all participants, even those that have completed the survey previous to this notification.

PLEASE NOTE THE FOLLOWING:

The principal investigator is responsible for determining and adhering to additional requirements established by any outside sponsors/funding sources.

Record Keeping

The principal investigator is expected to maintain the original signed informed consent forms, if applicable, along with the research records for at least three (3) years after termination of the study.

This correspondence will also be available to you in PRAMS at *www.prams.psu.edu*.

Consent Document(s)

The exempt consent form(s) will no longer be stamped with the approval/expiration dates.

The consent form in PRAMS that matches the date of this determination is the one that you are expected to use. **Follow-Up**

The Office for Research Protections will contact you in three (3) years to inquire if this study will be on-going.

If the study is completed within the three year period, the principal investigator may complete and submit a **Project Close-Out Report:**

http://www.research.psu.edu/orp/areas/humans/applications/index.asp#other

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Revisions/Modifications

Any changes or modifications to the study must be submitted through the eSubmission

application for this protocol in PRAMS (*www.prams.psu.edu*).

Please do not hesitate to contact me if you have any questions or concerns.

Thank you,

Sara Hartman

Research Compliance Coordinator II

Office for Research Protections

The Pennsylvania State University

The 330 Building, Suite 205, University Park, PA 16802

Telephone: 814-865-3696

Appendix K:

Dauphin County Technical School

6001 Locust Lane

Harrisburg, Pa 17109

Phone: (717) 652-3170

Fax: (717) 652-9326

Ms Toni Arnold

106 Kestrel Court

Hummelstown, PA 17036

Dear Ms Arnold:

By means of this letter, you are hereby granted permission to conduct a research study at

Dauphin County Technical School on the practices of the professional development of

our teachers. If I can be of any assistance, please let me know. I look forward to

working together.

Sincerely,

Kevin R. Lacey, D.Ed.

Administrative Director

Dauphin County Technical School

Appendix L- Staff, Public, Board Informational power point

Title of Project: POST-PROFESSIONAL DEVELOPMENT PERCEPTIONS OF

TEACHERS OF RESEARCH BASED INSTRUCTIONAL PRACTICES

Significance

- The purpose of the study is to examine the implementation of research based

  educational strategies in the areas of curriculum, lesson planning, instruction and

  assessment.

- This study will closely examine the attitudes and perceptions of the teachers and

  the implementation of the instructional strategies.

The research:

- Research has suggested that teachers tend to teach the way they were taught

  (Gardner, 1999; Jonassen, 1981).

- The effort of a comprehensive school improvement plan must support the

  teacher's continuous development on the job (Gordon, 2004).

- Darling-Hammond (2007,p 1-2) found in reviewing the latest research that the

  teacher qualifications, teacher's knowledge, and skills, make more difference for

  student learning than any other single factor.

Research Questions:

- How do the teachers perceive the professional development of the research based instructional strategies?

- What are the attitudes of teachers as they adapted and adopted the instructional strategies to their instruction?

- What factors are motivating the teachers to actively include the strategies in their instructional models?

Guskey's (1994) model of professional development evaluation survey.

The survey instrument has three sectors:

- Is the professional development program design effective

- Program content

- Organizational context

Additional information to be collected:

- Reflection Meetings/ Focus Meetings

- Teacher interviews

Multiple evaluation tools may be devised for each level of analysis, both qualitative and quantitative in nature. In addition, evaluations do not necessarily have to occur at the

end of a professional development session; productive evaluations run concurrently throughout the design, deliverance, and conclusion of the professional development.

Wallin, Hildebrandt, & Malik, (2008).

Appendix M.

CHAPTER 235. CODE OF PROFESSIONAL PRACTICE AND CONDUCT FOR
EDUCATORS from Public Law 393

Authority

The provisions of this Chapter 235 issued under section (5) (a) (10) of the act of
December 12, 1973 (P. L. 397, No. 141) (24 P. S. § 12-1255(a) (10)), unless otherwise
noted.

Source

The provisions of this Chapter 235 adopted June 26, 1992, effective November 1, 1992,
22 Pa. B. 3176, unless otherwise noted.

§ 235.1. Mission.

The Professional Standards and Practices Commission is committed to providing
leadership for improving the quality of education in this Commonwealth by establishing
high standards for preparation, certification, practice and ethical conduct in the teaching
profession.

§ 235.2. Introduction

(a) Professional conduct defines interactions between the individual educator and
students, the employing agencies and other professionals. Generally, the responsibility
for professional conduct rests with the individual professional educator. However, in this

Commonwealth, a Code of Professional Practice and Conduct (Code) for certificated educators is required by statute and violation of specified sections of the Code may constitute a basis for public or private reprimand. Violations of the Code may also be used as supporting evidence, though may not constitute an independent basis, for the suspension or revocation of a certificate. The Professional Standards and Practices Commission (PSPC) was charged by the act of December 12, 1973 (P. L. 397, No. 141) (24 P. S. § § 12-1251—12-1268), known as the Teacher Certification Law, with adopting a Code by July 1, 1991. See 24 P. S. § 12-1255(a) (10).

 (b) This chapter makes explicit the values of the education profession. When individuals become educators in this Commonwealth, they make a moral commitment to uphold these values.

§ 235.3. Purpose.

 (a) Professional educators in this Commonwealth believe that the quality of their services directly influences the Nation and its citizens. Professional educators recognize their obligation to provide services and to conduct themselves in a manner which places the highest esteem on human rights and dignity. Professional educators seek to ensure that every student receives the highest quality of service and that every professional maintains a high level of competence from entry through ongoing professional development. Professional educators are responsible for the development of sound educational policy and obligated to implement that policy and its programs to the public.

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(b) Professional educators recognize their primary responsibility to the student and the development of the student's potential. Central to that development is the professional educator's valuing the worth and dignity of every person, student and colleague alike; the pursuit of truth; devotion to excellence; acquisition of knowledge; and democratic principles. To those ends, the educator engages in continuing professional development and keeps current with research and technology. Educators encourage and support the use of resources that best serve the interests and needs of students. Within the context of professional excellence, the educator and student together explore the challenge and the dignity of the human experience.

§ 235.4. Practices.

(a) Professional practices are behaviors and attitudes that are based on a set of values that the professional education community believes and accepts. These values are evidenced by the professional educator's conduct toward students and colleagues, and the educator's employer and community. When teacher candidates become professional educators in this Commonwealth, they are expected to abide by this section.

(b) Professional educators are expected to abide by the following:

(1) Professional educators shall abide by the Public School Code of 1949 (24 P. S. § § 1-101—27-2702), other school laws of the Commonwealth, sections 1201(a)(1), (2) and (4) and (b)(1), (2) and (4) of the Public Employee Relations Act (43 P. S. § § 1101.1201(a)(1), (2) and (4) and (b)(1), (2) and (4)) and this chapter.

(2) Professional educators shall be prepared, and legally certified, in their areas of assignment. Educators may not be assigned or willingly accept assignments they are not certified to fulfill. Educators may be assigned to or accept assignments outside their certification area on a temporary, short-term, emergency basis. Examples: a teacher certified in English filling in a class period for a physical education teacher who has that day become ill; a substitute teacher certified in elementary education employed as a librarian for several days until the district can locate and employ a permanent substitute teacher certified in library science.

(3) Professional educators shall maintain high levels of competence throughout their careers.

(4) Professional educators shall exhibit consistent and equitable treatment of students, fellow educators and parents. They shall respect the civil rights of all and not discriminate on the basis of race, national or ethnic origin, culture, religion, sex or sexual orientation, marital status, age, political beliefs, socioeconomic status, disabling condition or vocational interest. This list of bases or discrimination is not all-inclusive.

(5) Professional educators shall accept the value of diversity in educational practice. Diversity requires educators to have a range of methodologies and to request the necessary tools for effective teaching and learning.

(6) Professional educators shall impart to their students principles of good citizenship and societal responsibility.

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(7) Professional educators shall exhibit acceptable and professional language and communication skills. Their verbal and written communications with parents, students and staff shall reflect sensitivity to the fundamental human rights of dignity, privacy and respect.

(8) Professional educators shall be open-minded, knowledgeable and use appropriate judgment and communication skills when responding to an issue within the educational environment.

(9) Professional educators shall keep in confidence information obtained in confidence in the course of professional service unless required to be disclosed by law or by clear and compelling professional necessity as determined by the professional educator.

(10) Professional educators shall exert reasonable effort to protect the student from conditions which interfere with learning or are harmful to the student's health and safety.

§ 235.5. Conduct.

Individual professional conduct reflects upon the practices, values, integrity and reputation of the profession. Violation of § § 235.6—235.11 may constitute an independent basis for private or public reprimand, and may be used as supporting evidence in cases of certification suspension and revocation.

§ 235.6. Legal obligations.

(a) The professional educator may not engage in conduct prohibited by the act of December 12, 1973 (P. L. 397, No. 141) (24 P. S. § § 12-1251—12-1268), known as the Teacher Certification Law.

(b) The professional educator may not engage in conduct prohibited by:

  (1) The Public School Code of 1949 (24 P. S. § § 1-101—27-2702) and other laws relating to the schools or the education of children.

  (2) The applicable laws of the Commonwealth establishing ethics of public officials and public employees, including the act of October 4, 1978 (P. L. 883, No. 170) (65 P. S. § § 401—413), known as the Public Official and Employee Ethics Law.

(c) Violation of subsection (b) shall have been found to exist by an agency of proper jurisdiction to be considered an independent basis for discipline.

Cross References

  This section cited in 22 Pa. Code § 235.5 (relating to conduct).

§ 235.7. Certification.

The professional educator may not:

  (1) Accept employment, when not properly certificated, in a position for which certification is required.

(2) Assist entry into or continuance in the education profession of an unqualified person.

(3) Employ, or recommend for employment, a person who is not certificated appropriately for the position.

Cross References

This section cited in 22 Pa. Code § 235.5 (relating to conduct).

§ 235.8. Civil rights.

The professional educator may not:

(1) Discriminate on the basis of race, National or ethnic origin, culture, religion, sex or sexual orientation, marital status, age, political beliefs, socioeconomic status; disabling condition or vocational interest against a student or fellow professional. This list of bases of discrimination is not all-inclusive. This discrimination shall be found to exist by an agency of proper jurisdiction to be considered an independent basis for discipline.

(2) Interfere with a student or colleague's exercise of political and civil rights and responsibilities.

Cross References

This section cited in 22 Pa. Code § 235.5 (relating to conduct).

§ 235.9. Improper personal or financial gain.

The professional educator may not:

(1) Accept gratuities, gifts or favors that might impair or appear to impair professional judgment.

(2) Exploit a professional relationship for personal gain or advantage.

Cross References

This section cited in 22 Pa. Code § 235.5 (relating to conduct).

§ 235.10. Relationships with students.

The professional educator may not:

(1) Knowingly and intentionally distort or misrepresent evaluations of students.

(2) Knowingly and intentionally misrepresent subject matter or curriculum.

(3) Sexually harass or engage in sexual relationships with students.

(4) Knowingly and intentionally withhold evidence from the proper authorities about violations of the legal obligations as defined within this section.

Cross References

This section cited in 22 Pa. Code § 235.5 (relating to conduct).

§ 235.11. Professional relationships.

The professional educator may not:

(1) Knowingly and intentionally deny or impede a colleague in the exercise or enjoyment of a professional right or privilege in being an educator.

(2) Knowingly and intentionally distort evaluations of colleagues.

(3) Sexually harass a fellow employee.

(4) Use coercive means or promise special treatment to influence professional decisions of colleagues.

(5) Threaten, coerce or discriminate against a colleague who in good faith reports or discloses to a governing agency actual or suspected violations of law, agency regulations or standard

Cross References

This section cited in 22 Pa. Code § 235.5 (relating to conduct).

Appendix N. The Professional Development Activities

Dauphin County Technical School

Learning Focused Strategies Implementation Plan

Implementation Year #1 – 2006/2007 School Year

October In-Service

Workshop:

- Overview of LFS
- Essential Questions
- Vocabulary
- Student Learning Maps
- Graphic Organizers

Workshop Assignment:

1. Designate 1 subject in which you will plan and use learning strategies.
2. For the second marking period begin using all of the following strategies consistently:
   a. Begin lessons with essential questions; students answer at the end
   b. Graphic organizers

January 31, 2007

Team of trainers will have a curriculum day together to prepare for February In-Service.

February In-Service

<u>Workshop</u>:

- Review of the following information: Overview, KUD, Acceleration / Previewing, Student Learning Maps
- EATS review that focuses on teaching strategies and pairs and practice
- Review of graphic organizers
- Work on a student learning map for your course

<u>Workshop Assignment</u>:

1. Continue consistently using essential questions and graphic organizers;
2. Add the following strategies for the third marking period:
    a. Preview advance organizers and vocabulary
    b. Distributed summarizing and numbered heads
    c. Distributed guided practice
3. Add the following strategies for the fourth marking period:
    a. Activating strategies
    b. Summarizing strategies

April/May Curriculum Day

Team of trainers will have a curriculum day together to prepare for 2007/2008

trainings.

Dauphin County Technical School

Learning Focused Strategies <u>Implementation Plan</u>

<u>Implementation Year #2 – 2007/2008 School Year</u>

August In-Service

<u>Workshop</u>:

- Review
- Extending/Refining
- Thinking Skills
- Teaching Thinking Skills
- Using thinking skills and extending / refining
- Differentiated Instruction
- Reflections

<u>Workshop Assignment</u>:

1. After day 3 training, continue using acceleration and acquisition strategies in the designated subject and add:
   a. Extending / Refining Activities
2. Once every 2-3 weeks meet with an administrator for a reflection meeting using the teachers reflection log
3. Once a month meet with an administrator during planning time and review a learning-focused lesson you are getting ready to teach

Fall In-Service

<u>Workshop</u>:

- Review
- Structured review to increase long term mastery
- Learning Units
  - What?
  - Why?
- Components of a Learning Unit
- Student Learning Map
- Culminating Activities
- Rubrics
  - Why?
  - How?
- Acquisition and Extending / Refining Lessons

<u>Workshop Assignment</u>:

1. After day 4 training, continue using acceleration, acquisition strategies, and extending / refining activities consistently in the designated subject and add:
   a. Complete unit planning guide for your learning units
   b. Have acquisition lessons and extending / refining activities for the most important essential questions, and a culminating activity
2. Continue meeting once every 2-3 weeks with an administrator for a Reflection Meeting using the Teachers' Reflection Log;
3. Continue meeting once a month with an administrator during planning time and review a learning–focused lesson you are getting ready to teach.
4. Complete the unit planning guide for 4 learning units this year.

Dauphin County Technical School

Learning Focused Strategies <u>Implementation Plan</u>

Implementation Year #3 – 2008/2009 School Year

In-Services

- Vocabulary
- Mathematics
- Differentiated Instruction
- Accelerating Learning (Catching Kids Up)
- Balanced Literacy

Implementation Year #4- 2009/2010 School Year

In-Services

- Reflection meetings
- Instructor/Trainer Workshops

VITA

Toni L. Arnold

106 Kestrel Court, Hummelstown, PA 17036   717-877-9232

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Career Goal: To enter the labor market as a training and development consultant who can offer industry an assessment of their training needs and also to be able to draft the curriculum to meet those needs.

Pennsylvania Department of Education Certifications:

Vocational Administrative Director
Supervisor Certification Vocational Education
Cooperative Education
Vocational Instructional II
Vocational Instructional I

Education

Masters of Education, Leadership Emphasis, Workforce Development,
Pennsylvania State University, University Park, PA

Bachelors of Science, Vocational Industrial Education
Pennsylvania State University, University Park, PA

Employment

Assistant Director	7/01-Present
Continuing Education/CO-OP Coordinator	2000-2001
Cosmetology Instructor/ Skills USA Advisor/Mentor	8/87-2000
Dauphin County Technical School, Harrisburg, PA	
PSU -Adjunct Professor/Local Resource Person	2000-Present
Empire Beauty School-Instructor	1983-1987
Toni Arnold Hair Designs	1983-1991