ABSTRACT

EDUCATIONAL LEADERSHIP

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TEACHER PERCEPTIONS OF THE EFFICACY OF TRADITIONAL STAFF DEVELOPMENT AND THE IMPACT ON STUDENT ACADEMIC LEARNING

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This quantitative study examined teachers' perceptions of traditional staff development and the impact on student academic learning. This was a purposeful study that involved 143 teachers in a metro area school system in Atlanta Georgia. Surveys were distributed to five of the top performing schools in the district, and five of the low performing schools within in the same district. Performance rankings were determined by the CRCT reading scores of the fourth grade student population. A 61-question survey was used as the instrument to determine the relationships between the independent and dependent variables.

The dependent variable of staff development was tested against nine independent variables that included: congruency with district goals, needs assessments, objective selection, and teaching strategies learned at staff development, follow up activities,

presenter preparations, leadership support, teacher perceptions, and time factors. The data collected was analyzed using the SPSS system for analysis.

The findings of this with respect to the Pearson Correlation showed that none of the independent variables had a significant relationship to the dependent variable student achievement; other factors were shown to have a greater impact.

TEACHER PERCEPTIONS OF THE EFFICACY OF TRADITIONAL STAFF DEVELOPMENT AND THE IMPACT ON STUDENT ACADEMIC LEARNING

A DISSERTATION

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CHAPTER I

THE PROBLEM IN CONTEXT

Purpose

The purpose of this study is to examine teachers' perceptions about the impact of staff development on student achievement as it relates to participation, implementation and effectiveness. It is intended to determine if teacher perceptions are related to the effects of staff development on student achievement. This study examined ten metro area schools within the same school district and determined the relationship between teacher perceptions of the efficacy of staff development in the traditional form and the correlation with student achievement.

This study determined if the dependant variable student achievement is affected significantly by the independent variables of congruency with district goals, needs assessments, objective selection, teaching strategies learned at staff development, follow up activities, presenter preparations, leadership support, teacher perceptions, and time factors. This research provides data to school systems that could guide them to an effective approach to staff development that results in student achievement.

The research questions used to determine this information are as follows:

1. Is there a significant relationship between state and district goals and student achievement?

2. Is there a significant relationship between needs assessment and student achievement?
3. Is there a significant relationship between objectives selected for staff development and student achievement?
4. Is there a significant relationship between teaching strategies learned at staff development and student achievement?
5. Is there a significant relationship between follow up activities and student achievement?
6. Is there a significant relationship between the preparedness of the presenter and student achievement?
7. Is there a significant relationship between the leadership support of the school and student academic achievement?
8. Is there a significant relationship between student performance on the CRCT test and student achievement?
9. Is there a significant relationship between the time a staff development course is offered and student achievement?

Issues and Strategies

The vision statement in a metro area school district is stated as follows: One system, one goal, one focus—student success. The mission statement says that the system is accountable for focusing their talent and resources to ensure student success. The goals of the system are:

- Student success
- Seek develop and retain talented teachers, and
- Develop staff and leaders, effectively through staff development.

The results were examined using the Criterion Referenced Competency Tests (CRCT) reading scores from 10 metro areas schools within the same district. Table 1 shows the variance in achievement levels.

Table 1

Variance in Achievement Levels

Schools	4th Grade CRCT % of Students Not Meeting Standards	Staff Development Implementation
School 1	9	100%
School 2	1	100%
School 3	1	100%
School 4	7	100%
School 5	1	100%
School 6	42	100%
School 7	35	100%
School 8	44	100%
School 9	33	100%
School 10	33	100%

The school board and superintendent formulated a policy in 1999 making it mandatory that every school in this system adopt a reform model and implement it within 3- 5 years of selection. In addition to selecting a reform model, schools were also required to supplement the reforms with staff development to ensure effective implementation and successful student outcomes. With these elements in place how can this system continue to see such a wide variance in reading test scores. Dickkinson, McBride, Lamb-McMilligan, and Nichols (2003) contend that the reason for this phenomenon is that staff development is often viewed as isolated activities that are only used to meet the requirements by the state and school districts rather than serve as an avenue to improve student achievement.

Figure 1 shows how staff development courses are implemented in the school system. More often that not, staff development courses are chosen at the district level without much input from teachers. When teachers are not given an opportunity to contribute input into the type of training necessary to make them successful, the output of the effort will not yield an increase in student achievement. The diagram suggests that staff development is not successful in its present form because of the approach.

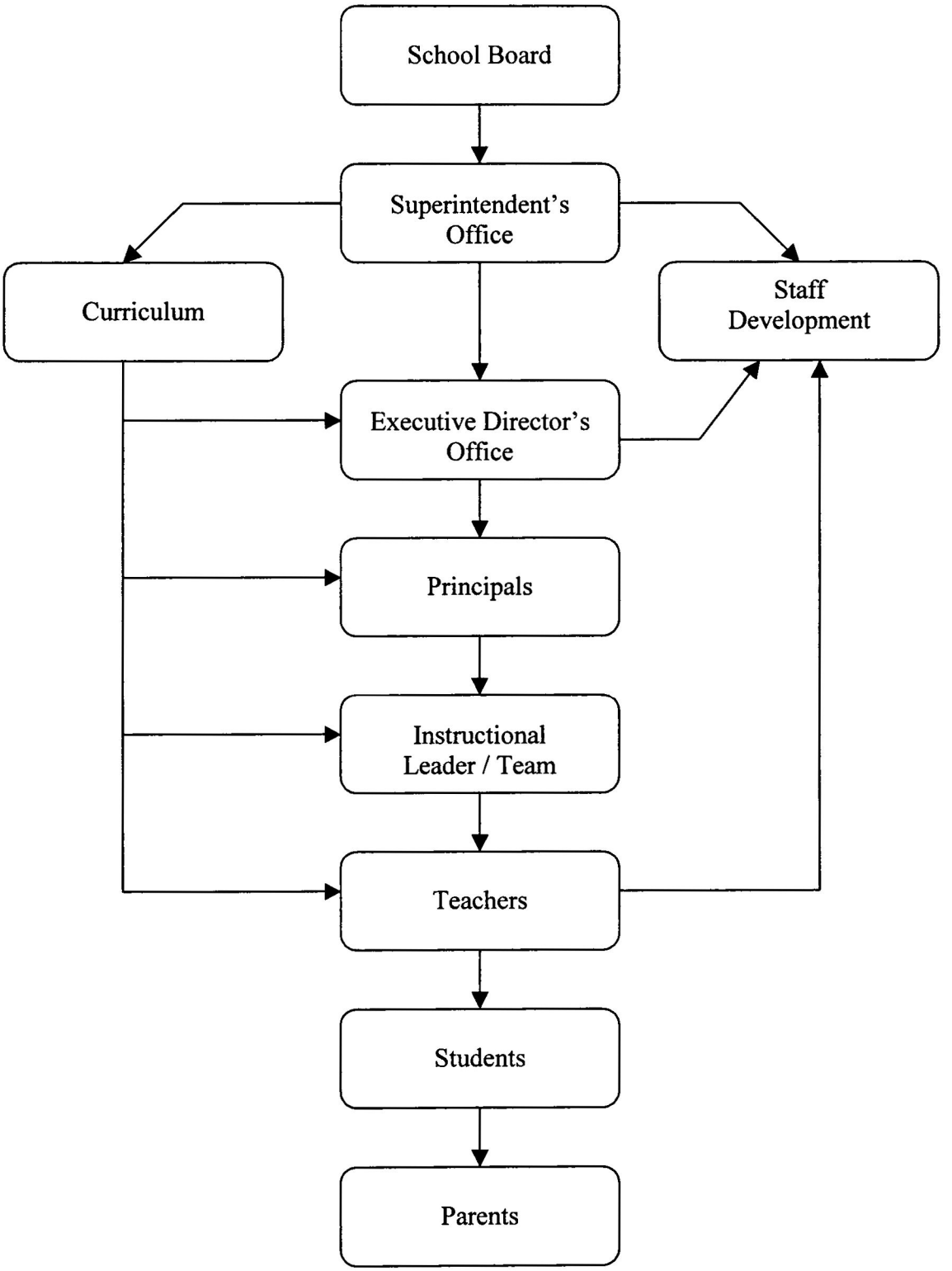

Figure 1: Factors Affecting the Quality of Staff Development

Arguments for Staff Development

On January 8, 2002, President Bush signed the No Child Left Behind Act (NCLB) of 2001 that reauthorized the Elementary and Secondary Education Act (ESEA). NCLB significantly raises expectations for states, local school systems, and schools in that all students will meet or exceed state standards in reading and mathematics within twelve years. Staff development has become a major part of this act. In this act, Title II part A: Grants for improving teacher quality clearly states in its proposal, that grants will be issued to allow states and districts greater flexibility for effective professional development. It further states that school districts are to establish high standards for professional development. School districts will be permitted to use this funding to strengthen skills and improve the knowledge of their public school teachers, principals, and administrators. In return, states and districts would be required to ensure that federal funds promote the use of effective classroom practices that are scientific and research-based. States will also be accountable for developing plans to ensure that effective teachers teach all children and meet all goals. States, school districts, administrators, and principals are under tremendous pressure to be in compliance with the expectations of No Child Left Behind.

The cornerstone of the NCLB is accountability. In the State of Georgia, each local school system and each individual school will be held accountable for the academic success of students. The federal law requires that each state set high academic standards and implement extensive student testing programs directly correlated with standards. Student achievement will be measured based on these standards. Under this portion of

the act is the category of Annual Yearly Progress (AYP). Annual Yearly Progress is a measure of year-to-year student achievement on statewide assessments. Annual Yearly Progress requires schools to meet standards in three areas: Test Participation (for Mathematics and Reading / English Language Arts), Academic Performance (for Mathematics and Reading / English Language Arts), and a Second Indicator. Schools that do not meet Annual Yearly Progress in the same subject for two or more consecutive years are placed in Needs Improvement status with escalating consequences for each successive year. Same subject is defined as two years of not making Reading/English Language Arts (participation or academic performance) or two years of not making mathematics (participation or academic performance) or two years of not making second indicator. A Needs Improvement school is simply a school that has been identified as needing to improve in specific areas. Needs Improvement schools are NOT "failing" schools. Schools that do not make Annual Yearly Progress for two or more consecutive years in the same subject are in need of improvement or are simply under-performing.

The school will be considered in "Needs Improvement Year 4" and will be subject to restructuring. It must develop (but not yet implement) an "alternate governance" or restructuring plan. The plan may include converting the school into a charter school, replacing all or most of the staff, turning it over to a private management company, or any other major restructuring of the school's governance arrangement that makes fundamental reforms. The belief by the state and school districts is that if you improve teachers by providing them with quality professional development courses of

high standards, the outcome will directly affect student achievement rates in the school system.

Staff development is a term used by educators to describe the continuing education of teachers, administrators, and other school personnel. Staff development is manufactured and implemented in many forms that include workshops, conferences, team teaching, grade level meetings, observations, peer coaching, keeping a written journal of teaching practices, and participation in committees (National Staff Development Council [NSDC], 2004). The primary objective of staff development is to give teachers a forum to enhance their teaching strategies that will ultimately improve the students' ability to learn and achieve goals. The mission and goal of all educational institutions is student achievement, making it the focal point of the future and success of schools.

Staff development became a prominent aspect of comprehensive school reform under the leadership of Lyndon B. Johnson in 1965 with the Elementary and Secondary Education Act (ESEA) born as part of the War on Poverty Act. This Act allotted $11 billion dollars over a period of 30 years to assist poor schools, communities, and children. The Act stressed the importance of staff development as a means to improve the level of instruction with the project outcome to be improved teaching standards and improvements in student achievement. The theory was that by allowing team learning, team teaching, interdisciplinary instruction, in-depth and long-term projects and other technological strategies, the natural order of things would dictate the expected outcomes. Educational trends continued to evolve with the Improving America's Schools Act (IASA) of 1994, The School-To-Work Opportunities Act, the Goals 2000: Educate

America Act, and currently the latest reform No Child Left Behind. A close examination of these Acts will show that they have two common denominators; staff development and student achievement.

In efforts to comply with the push for new and improved professional development, state mandates require all certified personnel teaching in the K-12 institution complete a delegated number of staff development units (SDU) for recertification. Many of these staff development units are completed using the more traditional form of staff development, attending seminars, workshops, or conferences. Research shows that these methods have not made much difference over the years. Why aren't the current forms of staff development producing the expected results? Does staff development really work?

Hilliard (1997) believes the problem with staff development in its traditional form is that it cannot produce teachers that are routinely successful. The two main reasons staff development is ineffective is because many of the approaches are ad hoc, sometimes entertaining, and are many times not at all connected to successful outcomes for learners. Secondly most staff development opportunities are centered on team building, learning styles, and lesson plans etc.; all examples of things that do not have much to do with real clinical classroom work.

Guskey (1998) stressed the importance is usually be placed on time for student learning as in increasing time on task for students, but little emphasis is placed on time for teacher learning such as time they spend on reading current educational trends, collaborating with colleagues. Teachers need extended time to expand their knowledge

base and regularly upgrade their skills and abilities (Guskey, 1998). Schools should structure schedules so that time is made for and put to good use. Many times days set aside for staff development in schools are not utilized effectively, Guskey gives some solutions:

- Add professional days to the calendar;
- Add professional hours to the school calendar;
- Add professional staff to allow release time so that teachers may observe one another in an actual teaching setting, to provide coaching;
- Professional development should be uninterrupted with trivial things such as school housekeeping things;
- Cleary state goals for each staff development opportunity to enhance the effectiveness. (p. 35)

Dickkinson, McBride, Lamb-McMilligan, and Nichols (2003) contend that the most familiar staff development in the public school system usually follow this scenario. At the start of the year educators, attend mandatory staff development courses as a requirement set by the state, but by as early as September they have settled back into their regular routines resulting in the same mundane and ineffective practices. The smallest portions of what is learned about quality staff development are actually implemented in the school system. Very few school districts utilize staff development activities as a part of their instructional practices. School districts are too tolerant with practices that are superficial, ineffective, and disingenuous. These types of professional development are wasteful and can sometimes be harmful (Dickkinson et al., 2003). We consistently

accept the fact that we will see an increase in student achievement by merely sending teachers to workshops and letting them participate in group activities. The reason for low student achievement is not due to the students' capabilities, it is due to the teachers' inability to teach them at high standards (Dickkinson et al., 2003). Principals believe that teachers only need to be induced or threatened to give their best practice; teachers are capable but not willing to give one hundred percent. In many of these instances staff development is filled with motivational speakers, and consultants that are brought in to motivate teachers with the expectations that this will lead to student achievement. Teachers must have an active participatory role in the process for staff development to be successful. Utilization of outside sources should only be a portion of staff development because engaging teachers and administrators in the process enhances learning in its own context.

Lewis (1994) states that more often what seems to be important for teachers to know is crammed into a few days, delivered by the supposed guru of that topic, who breezes into town never to be seen again. The staff developer has everything a teacher needs to know from the very first lesson of the school year to the very last, wrapped into a neatly packaged kit. This person speeds through the presentation, sometimes omitting portions, which in turn leaves time for teachers to socialize grade papers, balance checkbooks, and plan school field trips. She posses the following questions: How do we rid ourselves of such bad habits? How does the rich and growing knowledge base of new content, new information about learning, and new understandings of how to engage students who differ from those of generations past become the center of meaningful

conversations among teachers? And most importantly, How do these conversations become the basis of staff development?

Teachers need high quality help. They need opportunities for high quality staff development and networking before you began to see an improvement in student achievement. Teachers have just now begun to realize that they should have higher expectations for their students, revolutionize the concept of "we need to change the kids" and turn the focus towards " I need to change myself," and realize that the traditional teacher training days have never produced an alteration in attitude.

Kelleher (2003) contends that the standards movement has created a sense of urgency in school districts and has forced an imperative focus on professional development. He offers a six-stage model of a professional development cycle that clarifies the connection between student and adult learning. He suggests that traditional programs such as workshops and guest speakers are merely adult pullout programs that lack merit. These programs are inadequate because they lack follow up and tend to amount to a series of disjointed exercises. Teachers do not have the time or skills to develop new teaching strategies based solely on what they learn in one of these workshops or conferences. The question now becomes, how do we measure our investment in professional development? It is no longer sufficient to ask teachers how they felt about a speaker. The questions should now be what effect professional development has on student learning. He stresses that some staff development consisting of motivational speakers may be a necessary method to rejuvenate teachers and spawn a new enthusiasm for learning; it is not a high standards professional development

opportunity. This article suggests that staff developers take the SMART (Specific, Measurable, Attainable, Results oriented, and Time bound goals) approach used by many corporations. This method starts with a specific goal in mind, as it relates to the teacher and their students, they prepare for the activity, complete the activity, have the opportunity to reflect on the activity with others to share deep feelings about the program, and get feedback. There must be a professional development cycle (Kelleher, 2003).

> *Stage One*: The goal of student achievement as expressed by the SMART goal is designed should drive the selection of professional development opportunities. These must be not only in correlation to the teacher and departmental goals, but with the goals of the district.
>
> *Stage Two*: Examine the professional development activity itself and make sure the four professional development strands are in place; peer collaboration, individualized professional growth, research and leadership, and external experiences.
>
> *Stage Three*: Teachers must devote time to self-reflection and share their experiences and findings with colleagues. Here teachers are allowed the opportunities to share their learning and get feedback.
>
> *Stage Four*: Focus is now placed on the specific changes that a teacher will make based on both the staff development activity and the subsequent sharing with their colleagues. (p. 751)

According to Sparks (2000) large companies are beginning to realize the importance of informal learning in the workplace and trying to encourage this among their employees. Studies showed that 70% of what workers know about their jobs they learned informally from the people they worked with. When you take this same concept into the educational setting, the impact of teaming on these outcomes is magnified when teams have high levels of common planning time. Studies in Japanese schools show that they routinely collaborate in teaching, planning, and reflecting on researched lessons intended to improve some aspect of the curriculum, teaching practices, and strategies. Unfortunately, staff developments in schools seldom have the qualities described here. School districts and principals have enough information researched information and practical experience to suggest to them that the current methods being used within the school systems does not work. This article suggests that the teacher workday be redesigned to allow genuine teamwork and informal learning that will naturally occur when teaches are allowed the help each other with lesson plans, critique student work, and solve the common problems of everyday teaching. Some things they suggest are:

- Examine various sources of data on student learning and select a small number of staff development goals.
- Use faculty and grade level meeting for learning, minimizing time spent on other tasks during these meetings.
- Focus learning on deepening teachers' knowledge of the content they teach and on expanding the content they teach and on expanding the instructional

strategies so that they can adapt to the diversity that is consistently changing in the school environment.

- Extend training into the classroom by providing extensive coaching and study groups for all teachers.
- Organize regularly scheduled meetings for principals focused on district's learning priorities for students.

Wadsworth (2001) discusses how staff development is often chosen. Studies show that even though staff development goals are clearly defined by the district policies in partnership with their communities, the truth is that only about seven in ten reported that they tend to make decisions based on their own experiences and sense of what is right. Nearly three fourths also say that when leaders in their district communicate, it is to help people understand and support the schools, not to understand the communities concerns. Teachers are often disgruntled with seventy percent of them saying that they are often left out of the loop when it comes to their concerns about the school policies and teaching. Teachers feel uninvolved in the development of school reform policies and feel that student achievement is affected by factors beyond their control such as social problems, student apathy, or lack of parental involvement. No one offers to assist with teachers' feelings about these issues, which often leads to a lack of teacher buy in.

Sparks (2000) contends that this nation can no longer hope that random selection of courses and consultants will provide teachers with the knowledge and teaching skills they need to bring all students to high standards. According to the National Staff Development Council [NSDC] (2004), powerful staff development that focuses on

improving student learning is a part of every teachers' workday, deeply immerses the teachers into their subject matter and teaching methods, provides teachers with classroom assessment skills, and is sustained, intellectually rigorous, and cumulative. At the state level, the recommendation is to increase funding for quality professional development tracking the use of these funds, then evaluating how the effective the staff development improves student learning. At the local level, we advocate spending only ten percent of the district's budget and allocating at least twenty five percent of teachers' time for collaborative planning. Teachers would plan lessons together, solve instructional problems, and critique student work. They actively engage in a study of what they teach, how they teach it, and how students learn. This extends into the classroom through demonstrations of lessons and coaching provided by peers and trainers.

According to Hornbeck (2003), districts spend more to buy teacher time for professional development than anything else, but there is little accountability for the use of this time. In the seven districts studied, between one-third and one-half of professional development money was used to pay for professional development days or hours built into teacher work calendars, or for substitutes and stipends to free teachers for professional development activities. None of the districts, however, supported or required schools to develop integrated plans to use this time to improve school performance. Without accountability for using this time wisely, some schools choose to have teachers meet across subjects and grade levels to discuss and plan instruction while others provide free time for teachers to grade papers or create bulletin boards. Increasing funding to staff development will not improve student achievement or teacher quality, the

fact that schools do not have strong staff development structures prove that funding is not the answer (Sparks, 2000). Given the investment districts are making in providing teacher time, they need to make sure schools include the use of this time in their school improvement plans. In other words, the time for teachers to meet, plan, and learn as professional teams should be a resource that is clearly defined and integrated within the school improvement plan.

CHAPTER II

REVIEW OF RESEARCH

Student Achievement

Student Achievement is evident in many schools; the issue of increasing student achievement significantly to measurable levels is the problem plaguing many schools. Barrett spent the better part of his career demonstrating how to raise the low-performing students' academic achievement to levels of excellence and how easy it is to train staff to do likewise. After a year of working with a fifth-grade class in Bedford-Stuyvesant where achievement is normally two to three grade levels below average, the students took and passed the ninth-grade New York State Regency Examination in mathematics. Professor B also taught the faculty his approach, and the next year they achieved similar results.

Palmer founded the African-American Marcus Garvey school in Los Angeles nearly 20 years ago. It has become one of the highest achieving elementary schools in America, in spite of socioeconomic status, race, and language background. This African-American student body, among other things, has been a powerhouse in mathematics. Students are routinely introduced to calculus in fifth-grade. Few teachers have degrees, necessitating ongoing, on-site staff development.

Escalante is well known to many Americans because of the movie, *Stand and Deliver,* which is only a partial representation of the power of the man. In Garfield High School, a low-income Los Angeles high school, Jaime Escalante was responsible for averaging 50 passes on the Advanced Placement section of the SAT Calculus test each year for 10 years. Jaime Escalante was also responsible for training at least two other mathematics teachers at the high school so they performed equally impressive feats (Escalante, 1990).

Freire, a Catholic priest in Brazil, tried to respond to the needs of the dispossessed, largely poor Indian population by creating an approach to literacy training which is chronicled in his books, *Pedagogy of the Oppressed and Education for Critical Consciousness.* One of the students of Paolo Freire is Cynthia Brown from the San Francisco Bay area who wrote a book entitled *Literacy in 30 Hours* to punctuate Freire's success in teaching adults to read. In an amazingly short time, men and women who had not been literate became so in 30 to 40 hours in a "circle of culture" lead by Freire or by students trained in the Freire approach (Brown, 1975; Freire, 1973).

Needs Assessment

Sparks and Loucks-Horsley (1989) describe the teacher inquiry model which can take different forms. In this model teachers are responsible for recognizing their own needs and making improvements accordingly. For example, a high school teacher wonders if an alteration in her lesson plan from her first period class will produce improved student understanding in second period. A brief written quiz given at the end of the class indicates that it did. A group of teachers gathers weekly after school for an

hour or two at the teacher center to examine the research on ability grouping. Their findings will be shared with the district's curriculum council. Several elementary teachers study basic classroom research techniques, formulate research questions, gather and analyze data, and use their findings to improve instruction in their classrooms. All of these are various forms of inquiry. Teacher inquiry may be a solitary activity, be done in small groups, or be conducted by a school faculty. Its process may be formal or informal. It may occur in a classroom, at a teacher center, or result from a university class.

One of the important tenets of the inquiry approach is that research is an important activity in which teachers should be engaged, although they rarely participate in it other than as "subjects." Inquiry reflects a basic belief in teachers' ability to formulate valid questions about their own practice and to pursue objective answers to those questions. Loucks-Horsley and her associates (1987) list three assumptions about a teacher inquiry approach to staff development:

- Teachers are intelligent, inquiring individuals with legitimate expertise and important experience.
- Teachers are inclined to search for data to answer pressing questions and to reflect on the data to formulate solutions.
- Teachers will develop new understandings as they formulate their own questions and collect their own data to answer them.

According to Ingvarson (1987), the overarching assumption of the model is that:

> the most effective avenue for professional development is cooperative study by teachers themselves into problems and issues arising from their

> attempts to make their practice consistent with their educational values. [The approach] aims to give greater control over what is to count as valid educational knowledge to teachers. (p. 15)

The call for inquiry-oriented teachers is not new. Dewey (1933) wrote of the need for teachers to take "reflective action." Zeichner (1983) cites more than 30 years of advocacy for "teachers as action researchers," "teacher scholars," "teacher innovators," "self-monitoring teachers," and "teachers as participant observers." More recently, various forms of inquiry have been advocated by a number of theorists and researchers. Tikunoff and Ward's (1983) model of interactive research and development promotes teacher inquiry into the questions they are asking through close work with researchers (who help with methodology) and staff developers (who help them create ways of sharing their results with others). Lieberman (1986) reports on a similar process in which teachers serving on collaborative teams pursued answers to school wide rather than classroom problems. Watts (1985) discusses the role of collaborative research, classroom action research, and teacher support groups in encouraging teacher inquiry. Simmons and Sparks (1985) describe the use of action research to help teachers better relate research on teaching to their unique classrooms. Glickman (1986) advocates action research in the form of quality circles, problem-solving groups, and school improvement projects as means to develop teacher thought. Cross (1987) proposes classroom research to help teachers evaluate the effectiveness of their own teaching. Glatthorn (1987) discusses action research by teams of teachers as a peer-centered option for promoting professional growth. Loucks-Horsley and her colleagues (1987) discuss teachers-as-

researchers as a form of teacher development that helps narrow the gap between research and practice. Sparks and Simmons (1989) propose inquiry-oriented staff development as a means to enhance teachers' decision-making abilities.

The forms inquiry as a staff development model may take is limited only by the imagination. Simmons and Sparks (1985) describe a "Master of Arts in Classroom Teaching" degree designed to help teachers meet their individually identified improvement goals. Teachers in this program learn about educational research, identify and analyze classroom problems, pursue topics of professional interest, and improve their overall teaching ability. The authors report evidence of change in participant knowledge (e.g., concerning effective teaching-learning), thinking (e.g., enhanced problem-solving skills, increased cognitive complexity), and patterns of communication and collegiality.

Content Selection

Some improvements can be seen in student achievement the staff development content has a different substance than the traditional staff development of improving reading and math techniques. School districts have also initiated programs which involved teachers in improvement planning. Foe example, in the Hammond (Indiana) Public Schools, decision making is school based (Casner-Lotto, 1988). School improvement committees (each composed of 15-20 members, including teachers, administrators, parents, students, and community members) received training in consensus building, brainstorming, creative problem solving, and group dynamics. After this training, each committee develops a "vision of excellence" for its school. As a result, schools have initiated projects in individualized learning, peer evaluation, cross-grade-

level reading, and teacher coaching/mentoring. Sparks, Nowakowski. Hall, Alec, and Imrick (1985) reported on two elementary school improvement projects that led to large gains on state reading tests. The first school's staff decided to review the reading curriculum and to investigate alternative instructional approaches. Teachers task-analyzed the six lowest-scoring objectives on the state test, studied effective instructional techniques, and participated in self- selected professional growth activities. In 12 years the number of students who scored above the average rose from 72% to 100%. In the second school, teachers adopted a new reading series, revised the kindergarten program, and created a booklet that included practice test items and effective instructional practices for improving student achievement. The percentage of students achieving the reading objectives increased almost 20% in three years.

The Jefferson County (Colorado) School District has long involved teachers in curriculum development and adaptation (Jefferson County Public Schools, 1974). A cyclical process of needs assessment curriculum objective statements, curriculum writing, pilot testing and evaluation and district-wide implementation has been used on a regular basis in the major intent areas. Teachers involved in writing and pilot test teams hone their skills as curriculum planners and developers and as masters of the new techniques that are incorporated into the curriculum (these have included such strategies as cooperative learning and individualized instruction). They also often take on the role of teacher trainers for the district-wide implementation that follows pilot and field tests (Loucks & Pratt, 1979). E. J. Wilson High School in Spencerport (New York) is one of many across the country that has implemented elements of effective schools through a

systematic school improvement process. Teachers in the school participate with building administrators on a building planning committee which spearheads the achievement of "ideal practices" within the school through a seven-step process that engages the entire faculty in assessment, planning, implementation, and evaluation. As a result, the school climate and student achievement have improved, as have the knowledge, skills, and attitudes of the teachers involved. This school's outcome is representative of other schools that have implemented similar improvement processes (Kyle, 1985). These state, school, and district-level efforts illustrate the wide variety of ways in which this model of staff development is being used. While the research and evaluation evidence regarding the impact of these processes on teacher knowledge and skills is not substantial, research does support many of the ingredients contained within these processes. These include commitment to the process by school and building administrators, which includes giving authority and resources to the team to pursue and then implement its agenda; development of knowledge and skills on the part of the teacher participants; adequate, quality time to meet, reflect, and develop; adequate resources to purchase materials, visit other sites, hire consultants to contribute to informed decision making; leadership that provides a vision, direction and guidance, but allows for significant decision making on the part of the teacher participants; and integration of the effort into other improvement efforts and into other structures that influence teaching and learning in the school (Loucks-Horsley et al., 1987). When these factors are present, a limited amount of research data and a great deal of self-report data indicate clearly that the desired outcomes of staff development are achieved.

The inverse can bee seen when courses are chosen without the goal of improving the students are in mind. In an interview with Hilliard (2004), he stated in programs he has studied he has found that many of the staff development programs and techniques used today consist of staff development personnel that are not prepared to teach skills to audiences that are even less prepared or knowledgeable of that particular content area. Most staff development programs consist of reflects creative ideas that are put together systematically and shared with audiences commonly know as the ever-popular educational fad or trend. He makes reference to a conversation he had with a principal after a speaking engagement about the goals she wanted for her school. Upon analysis of the programs she implemented in her school over a one-year period, he found her programming to be inconsistent with the goals she was attempting to achieve (Hilliard, 1997). The following is a list of the staff development activities that she had arranged for her faculty during one year were as follows:

1. Team building
2. Bonding
3. Interdisciplinary planning/teaching
4. Teaching strategies
    a. Cooperative learning/Socratic questions
    b. Alternative assessment
    c. Group development
    d. Ed Nichols/cultural style/world view
    e. Learning Styles

f. Lesson plans

g. Writing of outcomes and objectives

5. Critical friends group

a. Teacher to teacher critique

b. Interaction with technologies (integration)

6. Integration of all subjects

7. Authentic assessment

8. Authentic instruction

All of these were to be implemented within on school year. In his discussion with the principal, they agreed that the items in this list suggest little real clinical classroom work and have very low possibility for direct payoff from activities. Moreover, the activities are essentially episodic and do not link together in any holistic way. The list reveals a lack of a theoretical or philosophical coherence to the approach.

In this school, as in others, such a list can lead to a school's commitment to grow without any of the necessary awareness of the school staff's strengths or weaknesses, the nature of inter-staff communication, or the presence of a shared vision, ideology, and commitment among the staff all of which should feed the design of a plan for staff development.

One other thing stands out in this list: the children are missing! In virtually all cases, staff development activities involve adults talking to each other, demonstrating for each other, or role-playing for each other without any opportunity to show that children are changed as a consequence of the activities of faculty and others. Often times the

person that delivers the staff development is a person on staff that has been displaced into the staff development department with little knowledge about techniques required to make a staff development course designed to increase student achievement work. He further explains that good staff development has three key elements; a master teacher to deliver the staff development, a person that can demonstrate that they can make a difference in student learning, with opportunities built in so that observers may see master teachers repeatedly. He defines master teacher as a person with deep understanding of the content in which they are teaching and can raise student achievement to high levels regardless of a student's backgrounds, economic status, ethnicity, or disability with a true passion for that particular area. This person has also had an apprenticeship, different from an internship, with a master professor where they would be required to emulate precisely the techniques of the master professor as they gain confidence in their own capabilities. The student can then adopt a personal style to that skill while being observed by the master professor. The student will then get the opportunity to discuss the session and repeat the observation process until they have become masters. This newly trained master teacher should then be able to show that they can raise student achievement to high levels. To do this, Hilliard further explains that this person should be available to model in classroom or school settings regardless of the school type, interact with students to show teachers how to approach the skill and how to actually integrate the new skill into their curriculum or lesson plans. Hilliard also makes reference to Suzuki and his methods to teaching violin to children as early as two years of age. When individuals are taught new skills in a systematic way, with opportunities to,

practice, receive feedback, and ask questions, and interact with others, the end product is success. Studies have shown that thousands of musicians have been trained by the Suzuki method and have gone on to become great musicians; imagine the results you would get if you trained teachers to teach using this method. He was a master teacher with passion and expertise in the teaching students with the true belief that all children can learn.

A key feature of all national professional development award winners is that their staff development efforts have the explicit goal of improving student learning, usually by finding ways to improve classroom practices. Moreover, these activities are integrated into daily activities or can be quickly applied in the classroom. At one model professional development award-winning school, teachers' professional development experiences included formal training, and on-the-job coaching from outside consultants to help them understand and use specific instructional programs to raise students' literacy scores.

Sparks and Loucks- Horsley (1998) studies five models of staff development: Individually guided staff development, (b) observation/assessment, (c) involvement in a development/improvement process, (d) training, and (e) inquiry. In the first model teachers learn many things on their own. They read professional publications, have discussions with colleagues, and experiment with new instructional strategies, among other activities. All of these may occur with or without the existence of a formal staff development program. It is possible, however, for staff development programs to actively promote individually guided activities. While the actual activities may vary

widely, the key characteristic of the individually-guided staff development model is that the learning is designed by the teacher. The teacher determines his or her own goals and selects the activities that will result in the achievement of those goals. The assumption with this model is that individuals can best judge their own learning needs and that they are capable of self-direction and self-initiated learning. It also assumes that adults learn most efficiently when they initiate and plan their learning activities rather than spending their time in activities that are less relevant than those they would design. (It is, however, true that when individual teachers design their own learning there is much "reinventing of the wheel," which may seem inefficient to some observers.) The model also holds that individuals will be most motivated when they select their own learning goals based on their personal assessment of their needs. Studies on this particular model include Lawrence's (1974) review of 97 studies of in-service programs with individualized activities were more likely to achieve their objectives than were those that provided identical experiences for all participants. Theory supporting the individually-guided model can be found in the work of a number of individuals. Rogers' (1969) client-centered therapy and views on education are based on the premise that human beings will seek growth given the appropriate conditions. Rogers wrote, "I have come to feel that the only learning which significantly influences behavior is self-discovered, self-appropriated learning" (p. 92). The differences in people and their needs are well represented in the literature on adult learning theory, adult development, learning styles, and the change process. Adult learning theorists (Kidd, 1973; Knowles, 1980) believe that adults become increasingly self-directed and that their readiness to learn is stimulated

by real life tasks and problems. Stage theorists (Levine, 1989) hold that individuals in different stages of development have different personal and professional needs. Consequently, staff development that provides practical classroom management assistance to a 22-year-old beginning teacher may be inappropriate for a teaching veteran who is approaching retirement.

Learning styles researchers (Dunn & Dunn, 1978; Gregorc, 1979) argue that individuals are different in the ways they perceive and process information and in the manner in which they most effectively learn (e.g., alone or with others, by doing as opposed to hearing about). Research on the Concerns-Based Adoption Model (CBAM) (Hall & Loucks, 1978) indicates that as individuals learn new behaviors and change their practice, they experience different types of concerns that require different types of responses from staff developers. For instance, when first learning about a new instructional technique, some teachers with personal concerns require reassurance that they will not be immediately evaluated on the use of the strategy, while a teacher with management concerns wants to know how this technique can be used in the classroom. Taken together, these theorists and researchers recognize that the circumstances most suitable for one person's professional development may be quite different from those that promote another individual's growth. Consequently, individually guided staff development allows teachers to find answers to self-selected professional problems using their preferred modes of learning. Individually guided staff development may take many forms. It may be as simple as a teacher reading a journal article on a topic of interest. Other forms of individually guided staff development are more complex. For instance,

teachers may design and carry out special professional projects supported by incentive grants such as a competitive "teacher excellence fund" promoted by Boyer(1983) or "mini-grants" described by Mosher (1981). Their projects may involve research, curriculum development, or other learning activities. While evidence of outcomes for such programs is not substantial, there are indications that they can empower teachers to address their own problems, create a sense of professionalism, and provide intellectual stimulation (Loucks-Horsley, Harding, Arbuckle, Dubea, Murray, & Williams, 1987). This strategy proved effective in New York City and Houston where teachers were supported to develop and disseminate their own exemplary programs through Impact II grants. They reported changes in their classroom practices, as well as increases in student attendance, discipline, and motivation (Mann, 1984, 1985).

Teacher evaluation and supervision can be a source of data for individually guided staff development. McGreal (1983) advocates that goal setting be the principal activity of teacher evaluation. Supervisors would assist in the establishment of those goals based on the motivation and ability of the teacher. The type of goals, the activities teachers engage in to meet the goals, and the amount of assistance provided by supervisors would differ from teacher to teacher based upon developmental level, interests, concerns, and instructional problems. Similarly, Glatthorn's (1984) "differentiated supervision" calls for "self-directed development" as one form of assistance to teachers. Self-directed development is a goal-based approach to professional improvement in which teachers have access to a variety of resources for meeting their collaboratively identified needs. Research on teacher centers also

demonstrates the value of individually guided staff development. Hering and Howey (1982) summarized research conducted on 15 teacher centers sponsored by the Far West Laboratory for Educational Research and Development from 1978 to 1982. They concluded that, "the most important contribution of teachers' centers is their emphasis on working with individual teachers over time" (p. 2). Such a focus on individual teachers is absent from many traditional staff development programs, which teacher centers appear to complement quite effectively. Hering and Howey (1982) also reported that mini-grants of up to $750 provided by the St. Louis Metropolitan Teacher Center were used to fund a variety of classroom-oriented projects. Interviews with participants found that teachers made extensive use of the ideas and products they developed. Some of these projects eventually affected not only an individual classroom, but a school or the entire district. Regarding this project, Hering and Howey concluded, as would be expected, teachers who were given money and support reported high levels of satisfaction and a sense of accomplishment. Also not surprisingly, they developed projects anchored in the realities of the classroom and responsive to the needs and interests of their students. Perhaps most important, however, is the strong suggestion that they can, indeed, influence change and innovation in other classrooms, as well as their own, through projects they design at minimal costs. Hering and Howey (1982) also report the findings for a study done on individualized services provided at the Northwest Staff Development Center in Livonia, Michigan. Even though these awards rarely exceeded $50, 78% of the recipients reported that they had considerable control over their own learning and professional development. Almost 85% of the recipients thought that these services

made a substantive difference in their classrooms. In summarizing the value of individualized services, the researchers wrote, "Individual teacher needs and concerns have to be attended to, as well as school wide collective ones, or enthusiasm for the collective approach will quickly wane" (p. 6). The circumstances most suitable for one person's professional development may be quite different from those that promote another individual's growth. Consequently, individually-guided staff development allows teachers to find answers to self-selected professional problems using their preferred modes of learning.

Teaching/Implementation Strategies

Another item to be examined in this study is teaching strategies learned in staff development and their transfer into classroom practice. One method is peer coaching that promotes transfer of learning to the classroom (Joyce & Showers, 1982). In peer observation, teachers visit one another's classrooms, gather objective data about student performance or teacher behavior, and give feedback in a follow-up conference. According to Joyce and Showers (1983), relatively few persons, having mastered a new teaching skill, will then transfer that skill into their active repertoire. In fact, few will use it at all. Continuous practice, feedback, and the companionship of coaches is essential to enable even highly motivated persons to bring additions to their repertoire under effective control (p. 4). Joyce (cited in Brandt, 1987) says that up to 30 trials may be required to bring a new teaching strategy under "executive control." Similarly, Shalaway (1985) found that 10 to 15 coaching sessions may be necessary for teachers to use what they have learned in their classrooms.

Acheson and Gall (1980) report a number of studies in which the clinical supervision model has been accepted by teachers when they and their supervisors are taught systematic observation techniques. They further note that this process is viewed as productive by teachers when the supervisor uses "indirect" behaviors (e.g., accepting feelings and ideas, giving praise and encouragement, asking questions). While the authors report that trained supervisors helped teachers make improvements in a number of instructional behaviors, they were unable to find any studies that demonstrated student effects. The most intensive and extensive studies of the impact of observational and assessment on learning comes from the work of Showers and Joyce. These authors and their associates have found that powerful improvements have been made to student learning when the training of teachers in effective instructional practices is followed by observations and coaching in their classrooms (Joyce & Showers, 1987). The research, then, provides reason to believe that teacher behaviors can be positively influenced by the use of an observation/assessment model of staff development.

In a study that contrasted different sources of coaching, Sparks (1986) contrasted a workshop-only approach with peer coaching and with consultant coaching. Her findings indicated that peer coaching was most powerful in improving classroom performance. The research, then, provides reason to believe that teacher behaviors can be positively influenced by the use of an observation/assessment model of staff development. It still remains to be learned, however, whether this model must be combined with particular kinds of training if student learning is to be enhanced.

Barriball and McKinnon of New Zealand led a group of nearly 100 New Zealand teachers to develop an approach to teaching algebra to preschoolers. In 1995, at Longfellow Elementary School in Pontiac, Michigan, a school with a large number of low-income children, 92% of the students performed satisfactorily on the Michigan Achievement Test (MEAP). Previously, 80% of those children had done unsatisfactory work. This math program comes from the same country that gave us Reading Recovery. Someone knows how to teach and how to teach teachers (Miller & McKinnon, 1995).

The power of training to alter teachers' knowledge, attitudes, and instructional skills is well established. Its impact on teachers, however, depends upon its objectives and the quality of the training program. Joyce and Showers (1988) have determined that when all training components are present (theory, demonstration, practice, feedback, and coaching), an effect size of 2.71 exists for knowledge-level objectives, 1.25 for skill-level objectives, and 1.68 for transfer of training to the classroom. (The effect size describes the magnitude of gains from any given change in educational practice; the higher the effect size, the greater the magnitude of gain. For instance, an effect size of 1.0 indicates that the average teacher in the experimental group outperformed 84% of the teachers in the control group.) "We have concluded from these data," Joyce and Showers (1988) report, "that teachers can acquire new knowledge and skill and use it in their instructional practice when provided with adequate opportunities to learn" (p. 72). Coaching and peer observation research cited earlier in the observation/assessment model also supports the efficacy of training.

Wade (1985) found in her meta-analysis of in-service teacher education research that training affected participants' learning by an effect size of 90 and their behavior by 60. An effect size of .37 was found for the impact of teacher training on student behavior. Wade also concluded that training groups composed of both elementary and secondary teachers achieved higher effect sizes than did those enrolling only elementary or only secondary teachers.

Gage (1984) traces the evolution of research on teaching from observational and descriptive studies to correlational studies to nine experiments that were designed to alter instructional practices.

> The main conclusion of this body of research is that, in eight out of the nine cases, in-service education was fairly effective—not with all teachers and not with all teaching practices but effective enough to change teachers and improve student achievement, or attitudes, or behavior. (p. 92)

Numerous specific illustrations of training programs are available that have demonstrated impact on teacher behavior and/or student learning. For instance, studies indicate that teachers who have been taught cooperative learning strategies for their classrooms have students who have higher achievement, display higher reasoning and greater critical thinking, have more positive attitudes toward the subject area, and like their fellow students better (Johnson, Johnson, Holubec, & Roy, 1984).

Good and Grouws (1987) describe a mathematics staff development program for elementary teachers. In this 10-session program, teachers learned more about mathematics content and about instructional and management issues. As a result of the

training, the researchers found changes in teachers' classroom practice and improved mathematics presentations. Student mathematics performance was also improved.

Kerman (1979) reports a three-year study in which several hundred K-12 teachers were trained to improve their interactions with low achieving students. The five-session training program included peer observation in the month interval between each session. The researchers found that low achieving students in the experimental class made significant academic gains over their counterparts in control groups.

Robbins and Wolfe (1987) discuss a four-year staff development project designed to increase elementary students' engaged time and achievement. Evaluation of the training program documented steady improvement for three years in teachers' instructional skills, student engaged time, and student achievement in reading and math. While scores in all these areas dropped in the project's fourth and final year, Robbins and Wolfe argue that this decline was due to insufficient coaching and peer observation during that year.

Watts (1985) presents a number of ways in which teachers act as researchers. She discussed collaborative research in teacher centers funded by the Teachers' Center Exchange (then located at the Far West Laboratory for Educational Research and Development) that was conducted in the late 1970s and early 1980s. Fourteen projects were funded in which teachers collaborated with researchers on topics of interest to the individual teachers' center. Watts also described ethnographic studies of classrooms conducted collaboratively by teachers and researchers. In addition, she provided examples of classroom action research and teachers' study groups as forms of inquiry.

Watts concluded that these three approaches share several outcomes. First, as a result of learning more about research, teachers make more informed decisions about when and how to apply the research findings of others. Second, teachers experience more supportive and collegial relationships. Third, teaching improves as teachers learn more about it by becoming better able to look beyond the immediate, the individual, and the concrete.

The effects of the teacher inquiry model of staff development may reach beyond the classroom to the school. An example of school wide impact comes from the report of a high school team convened to reflect on a lack of communication and support between teachers and administrators (LieBerman & Miller, 1984). Note that there is a substantial overlap between this kind of "school-based" inquiry and some of the school improvement processes discussed earlier in the model described as involvement in a development/ improvement process.

In each case cited above, student achievement was extraordinarily high. In each case, we also have examples of teachers who were trained to get the highest level of academic and social results. Success was not confined to the creator of the idea. The creators trained other teachers who also became successful. Staff development can produce other individuals that are capable of producing high levels of extraordinary achievement in children. Hilliard (1996) states although much serious systematic ethnographic study of each approach is needed; he has summarized his observations of the elements of successful staff development approaches that were common in significantly raising achievement levels.

Congruency With District Goals

Often times when staff development is congruent with school and district goals the outcomes have varying results. In the Development Process, teachers are sometimes asked to develop or adapt curriculum, design programs, or engage in systematic school improvement processes that have as their goal the improvement of classroom instruction and/or curriculum. Typically these projects are initiated to solve a problem. Their successful completion may require that teachers acquire specific knowledge or skills (e.g., curriculum planning, research on effective teaching, group problem-solving strategies). This learning could be acquired through reading, discussion, observation, training, or trial and error. In other instances, the process of developing a product itself may cause significant learning (e.g., through experiential learning), some of which may have been difficult or impossible to predict in advance. This model focuses on the combination of learning that result from the involvement of teachers in such development/improvement processes. The first assumption with this model is based is that adults learn most effectively when they have a need to know or a problem to solve (Knowles, 1980). Serving on a school improvement committee may require that teachers read the research on effective teaching and that they learn new group and interpersonal skills. Curriculum development may demand new content knowledge of teachers. In each instance, teachers' learning is driven by the demands of problem solving. The second assumption of this model is that people working closest to the job best understand what is required to improve their performance. Their teaching experiences guide teachers as they frame problems and develop solutions. Given appropriate opportunities, teachers

can effectively bring their unique perspectives to the tasks of improving teaching and their schools. A final assumption is that teachers acquire important knowledge or skills through their involvement in school improvement or curriculum development processes. Such involvement may cause alterations in attitudes or the acquisition of skills as individuals or groups work toward the solution of a common problem. For instance, teachers may become more aware of the perspectives of others, more appreciative of individual differences, more skilled in group leadership, and better able to solve problems. While the learning may be unpredictable in advance, they are often regarded as important by teachers. Teachers acquire important knowledge or skills through their involvement in school improvement or curriculum development processes. Such involvement may cause alterations in attitudes or the acquisition of skills as individuals or groups work toward the solution of a common problem.

Representing curriculum development and school improvement as types of staff development can show that involvement in these processes nurtures teachers' growth. Many may see staff development as a key component of effective curriculum development and implementation. As Joyce and Showers (1988) write, "It has been well established that curriculum implementation is demanding of staff development – essentially, without strong staff development programs that are appropriately designed a very low level of implementation occurs" (p. 44). Whichever perspective one has, staff development and the improvement of schools and curriculum go hand in hand. Glickman (1986), who argues that the aim of staff development should be to improve teachers' ability to think, views curriculum development as a key aspect of this process. He

believes that the intellectual engagement required in curriculum development demands that teachers not only know their content, but that they must also acquire curriculum planning skills. He recommends that curriculum development be conducted in heterogeneous groups composed of teachers of low, medium, and high abstract reasoning abilities. Accordingly, says Glickman, the complexity of the curriculum development task should be matched to the abstract reasoning ability of the majority of teachers in the group. Glatthorn (1987) describes a few ways in which teachers can modify a district's curriculum guide. They may make the district's curriculum guide more operational by taking its lists of objectives and recommended teaching methods and turning them into a set of usable instructional guides. They can also adapt the guide to students' special needs (e.g., remediation, learning style differences, etc.) or develop optional enrichment units. Glatthorn recommends that these activities be done in groups, believing that, in doing so, teachers will become more cohesive and will share ideas about teaching and learning in general, as well as on the development task at hand. The involvement of teachers in school improvement processes, while similar in its assumptions and process to curriculum development, finds its research and theory base in other sources. An approach to school improvement through staff development developed by Wood and his associates was derived from an analysis of effective staff development practices as represented in the research and in reports from educational practitioners (Thompson, 1982; Wood, 1989). The result is a five-stage RPTIM model (Readiness, Planning, Training, Implementation, and Maintenance) used widely in designing and implementing staff development efforts (Wood, Thompson, & Russell, 1981). As a result of

involvement in such improvement efforts, schools and teachers may develop new curriculum, change reporting procedures to parents, enhance communication within the faculty, and improve instruction, among many other topics.

While teachers have long been involved in curriculum some development, little research on the impact of these experiences on their professional development has been conducted. The research that has been done has assessed the impact of such involvement on areas other than professional development (Kimpston & Rogers, 1987). Similarly, although the engagement of teachers in school improvement processes has increased in the last few years, little research has been conducted on the effects of that involvement on their professional development. There are, however, numerous examples that illustrate the various ways schools and districts have enhanced teacher growth by engaging them in the development/improvement process. In the past few years, many state education agencies have supported implementation of state-initiated reforms through the encouragement (and sometimes mandating) of school improvement processes. For example, the Franklin County (Ohio) Department of Education used a staff development process to assist five school districts to meet mandated state goals (Scholl & McQueen, 1985). Teachers and administrators from the districts learned about the state requirements and developed goals and planned strategies for their districts. A major product of the program was a manual that included a synthesis of information and worksheets that could be used to guide small group activities in the five districts.

Teacher development in school districts does not take place in a vacuum. Its success is influenced in many ways by the district's organizational context (McLaughlin

& Marsh, 1978; Sparks, 1983). Key organizational factors include school and district climate, leadership attitudes and behaviors, district policies and systems, and the involvement of participants. While staff development fosters the professional growth of individuals, organizational development addresses the organization's responsibility to define and meet changing self-improvement goals (Dillon-Peterson, 1981). Consequently, effective organizations have the capacity to continually renew themselves and solve problems. Within this context, individuals can grow.

There are two other very important elements that play important roles in the effectiveness of professional development, district/system policies and participation. Staff development activities occur within the context of a district's staff development program. According to Ellis (1988), a comprehensive staff development program includes a philosophy, goals, allocation of resources, and coordination. The philosophy spells out beliefs that guide the program. District, school, and individual goals (and their accompanying action plans) provide direction to staff development efforts. Resources need to be allocated at the district, school, and individual levels so that these goals have a reasonable chance of being achieved. Staff development programs need to be coordinated by individuals who have an assigned responsibility for this area. Ellis also supports the use of a district-level staff development committee to aid in coordination of programs. The selection, incorporation, or combination of the models of staff development is the responsibility of the district's staff development structure. Decisions about their use need to match the intended outcomes if they are to be effective (Levine &

Broude, 1989), but these decisions are also influenced by state or community initiatives aimed at the improvement of schools and teaching (Anderson & Odden, 1986).

The other aspect of this is participation. Research clearly indicates that involving participants in key decisions about staff development is necessary for a program to have its greatest impact. According to Lieberman and Miller (1986), a supportive context for staff development requires both a "top-down" and "bottom-up" approach. The top-down component sets a general direction for the district or school and communicates expectations regarding performance. The bottom-up processes involve teachers in establishing goals and designing appropriate staff development activities. The establishment of common goals is important to the success of staff development efforts (Ward & Tikunoff, 1981). Odden and Anderson's (1986) research indicates that a clearly defined process of data collection, shared diagnosis, and identification of solutions to problems must be employed during the planning phase. Collaboration, from initial planning through implementation and institutionalization, is a key process in determining these goals and in influencing lasting change (Lambert, 1984; McLaughlin & Marsh, 1978; Wood, Thompson, & Russell, 1981). Lortie (1986) argues that when teachers perceive that they can participate in important school-level decisions, the relationship between the extra efforts required by school improvement and the benefits of these efforts becomes clearer. Following this argument, he recommends that schools be given relatively little detailed supervision, but be monitored instead for results based on explicit criteria. Others report that, when teachers cannot be involved in initial decisions regarding staff development (e.g., when it is mandated by state legislation or when it

supports the use of district-wide curriculum), their involvement in decisions about the "hows" and "whens" of implementation can be important to success. Furthermore, teachers' involvement in developing curriculum and as trainers for staff development programs can contribute in important ways to the success of an effort (Loucks & Pratt, 1979). Odden and Anderson (1986) capture the reciprocal relationship between organization and individual development in this discussion of their research:

> When instructional strategies, which aim to improve the skills of individuals, were successful, they had significant effects on schools as organizations. When school strategies, which aim to improve schools as organizations, were successful, they had significant impacts on individuals. (p. 585)

Staff development both influences and is influenced by the organizational context in which it takes place. The impact of the staff development models that have been discussed depends not only upon their individual or blended use, but upon the features of the organization in which they are used.

Staff development is a relatively young "science" within education. In many ways the current knowledge base in staff development is similar to what was known about teaching in the early 1970s. During the 1970s and early 1980s, research on teaching advanced from descriptive to correlational to experimental (Gage, 1984). With the exception of research on training, much of the staff development literature is theoretical and descriptive rather than experimental.

Follow-Up Activities

Follow up activities are important to the success of staff development and the impact on student achievement. Research has shown that students regardless of socioeconomic status can perform at or above grade level on standardized tests if given the proper tools. These tools include teachers that are capable of making a change, proven by Project Seed. Johntz (Project SEED, 1991; Russell, 1991), the founder of Project SEED, had a vision that all students can learn. With a background in both mathematics and psychology, Johntz wanted all students to be successful, particularly those who might be struggling against poverty, racism or other challenges. He realized that low achieving students at Berkeley High School were burdened with a history of academic failure experiences. Traditional remediation often reinforced feelings of academic inferiority and led to further poor performance. In order to reverse this destructive cycle, Johntz experimented with providing students with new material rather than focusing on topics they had already failed to master. He began teaching them advanced mathematics using the Socratic Method, reasoning that success in a high status subject such as mathematics would build the students' confidence and overcome their feelings of failure, freeing them to master the basics program. The new approach was, in fact, much more successful than the traditional one. Hoping to impact younger students with a shorter history of failure, Johntz used his group discovery approach to teach advanced algebra and conceptually oriented college level mathematics to students in a nearby elementary school during his lunch hour and free period. The result of his experiment was astonishing. Even though these elementary students had previously

tested at or below the national average, they quickly grasped the concepts Johntz taught. By the end of the term, the elementary level students had mastered advanced algebra concepts and had improved in their basic skills. The Project SEED program spread as Johntz and the colleagues he had gathered from the university and research communities, began to teach more and more students carrying the idea to other districts. Over the years, Project SEED has also expanded the professional development component of its program and applied the same teaching methods successfully to workshops for parents and community members. Corporate and university training have been added to the program as well. Project SEED now reaches hundreds of teachers and thousands of students every year. Today, Project SEED is supported by school districts, corporations, foundations, and individuals that see the need to reach students early to increase their chance of success as adults. The vision of one man, Bill Johntz, is now shared with communities across the country. Project SEED's professional development is based on recognized best practices in education including modeling and coaching. It incorporates the recommendations of the National Staff Development Council that "the most effective training programs include exploration of theory, demonstrations of practice, supervised trials of new skills with feedback on performance, and coaching within the workplace" (p. 47).

In Student Achievement through Staff Development, Joyce and Showers (1987) reported that coaching in the classroom after workshops was 80%-90% effective at enabling teachers to use and apply new methods in the classroom. Workshops, alone, were only 5%-10% effective. Project SEED professional development includes a

combination of staff development workshops, one-on-one intensive training for selected teachers, and small group seminars throughout the school year. The workshop setting allows large groups of teachers to focus on Project Seed's teaching techniques and strategies for introducing mathematics. These workshops cover topics including interactive teaching, effective mathematics instruction, and advanced topics in mathematics. Intensive training consists of daily modeling of Project SEED methodology and advanced mathematics in the classroom. In addition, the classroom teacher teaches discovery lessons with assistance in lesson planning, while the Project SEED math specialist provides observation and feedback. The Project SEED mathematics specialist also is available to the teacher as consultant on curriculum and methodology. Other teachers in the school are welcome to observe the model lessons and participate with the Project SEED specialists in small group seminars on curriculum and methodology.

Little (1982) found that effective schools are characterized by norms of collegiality and experimentation. Simply put, teachers are more likely to persist in using new behaviors when they feel the support of colleagues and when they believe that professional risk taking (and its occasional failures) are encouraged. Fullan (1982) reports that the degree of change is strongly related to the extent to which teachers interact with each other and provide technical help to one another. "Teachers need to participate in skill-training workshops but they also need to have one-to-one and group opportunities to receive and give help, and more simply to converse about the meaning of change" (p. 121).

Leadership Support

The form of staff development that is directly related to leadership support is discussed here in the observation assessment model. Feedback is the breakfast of champions" is the theme of Blanchard and Johnson's (1982) popular management book, *The One Minute Manager*. Yet many teachers receive little or no feedback on their classroom performance. In fact, in some school districts teachers may be observed by a supervisor as little as once every 3 years, and that observation/feedback cycle may be perfunctory in nature. While observation/assessment can be a powerful staff development model, in the minds of many teachers it is associated with evaluation. Because this process often has not been perceived as helpful (Wise & Darling-Hammond, 1985), teachers frequently have difficulty understanding the value of this staff development model. However, once they have had an opportunity to learn about the many forms this model can take (for instance, peer coaching and clinical supervision, as well as teacher evaluation), it may become more widely practiced. The underlying assumption in this model, according to Loucks-Horsley and her associates (1987), is that "Reflection and analysis are central means of professional growth" (p. 61). Observation and assessment of instruction provide the teacher with data that can be reflected upon and analyzed for the purpose of improving student learning. A second assumption is that reflection by an individual on his or her own practice can be enhanced by another's observations. Since teaching is an isolated profession, typically taking place in the presence of no other adults, teachers are not able to benefit from the observations of others. Having "another set of eyes" gives a teacher a different view of how he or she is

performing with students. Another assumption is that observation and assessment of classroom teaching can benefit both involved parties—the teacher being observed and the observer. The teacher benefits by another's view of his or her behavior and by receiving helpful feedback from a colleague. The observer benefits by watching a colleague, preparing the feedback, and discussing the common experience. The final assumption is that when teachers see positive results from their efforts to change, they are more apt to continue to engage in improvement. Because this model may involve multiple observations and conferences spread over time, it can help teachers see that change is possible. As they apply new strategies, they can see changes both in their own and their students' behavior. In some instances, measurable improvements in student learning will also be observed. Theoretical and research support for the observation/assessment model can be found in the literature on teacher evaluation, clinical supervision, and peer coaching. Each of these approaches is based on the premise that teaching can be objectively observed and analyzed and that improvement can result from feedback on that performance. McGreal's (1982) study of teacher evaluation suggests a key role for classroom observation, but expresses a major concern about reliability of observations. McGreal points to two primary ways to increase the reliability of classroom observations. The first is to narrow the range of what is looked for by having a system that takes a narrowed focus on teaching (for instance, an observation system based on the Madeline Hunter approach to instruction), or by using an observation guide or focusing instrument. The second way is to use a pre-conference to increase the kind and amount of information the observer has prior to the observation. Glatthorn (1984) recommends that

clinical supervisors (or coaches) alternate unfocused observations with focused observations. In unfocused observation the observer usually takes verbatim notes on all significant behavior. These data are used to identify some strengths and potential problems that are discussed in a problem-solving feedback conference. A focus is then determined for the next observation during which the observer gathers data related to the identified problem. Glickman (1986) suggests that the type of feedback provided teachers should be based on their cognitive levels. Teachers with a "low abstract" cognitive style should receive directive conferences (problem identification and solution come primarily form the coach or supervisor) "moderate-abstract'' teachers should receive collaborative conferences (an exchange of perceptions about problems and a negotiated solution); and "high- abstract" teachers should receive a nondirective approach (the coach or supervisor helps the teacher clarify problems and choose a course of action).

In order for any staff development model to be successful the climate of the organization is a key component to the success. Joyce and Showers (1983) point out that "in a loose and disorganized social climate without clear goals, reluctant teachers may actually destroy elements of the training process not only for themselves but also for others" (p. 31). While teacher commitment is desirable, it need not necessarily be present initially for the program to be successful. Miles (1983) found that teacher/administrator harmony was critical to the success of improvement efforts, but that it could develop over the course of an improvement effort. Initially, working relationships between teachers and administrators had to be clear and supportive enough so that most participants could

"suspend disbelief," believing that the demands of change would be dealt with together (Crandall, 1983). In their study of school improvement efforts that relied heavily on staff development for their success, Crandall found that in projects where a mandated strategy caused some initial disharmony between teachers and administrators, the climate changed as the new program's positive impact on students became clear. When a new program was selected carefully and teachers received good training and support, most who were initially skeptical soon agreed with and were committed to the effort. Showers, Joyce, and Bennett (1987) support the position that, at least initially, teachers' ability to use a new practice in a competent way may be more important than commitment.

Few would disagree with the importance of a school and district climate that encourages experimentation and supports teachers to take risks, i.e, establishes readiness for change (Wood, Thompson, & Russell, 1981). Yet a supportive context consists of more than "good feelings." The quality of the recommended practices is also critical. Research conducted by Guskey (1986) and Loucks and Zacchei (1983) indicates that the new practices developed or chosen by or for teachers need to be effective ones—effective by virtue of evaluation results offered by the developer or by careful testing by the teachers who have developed them. These researchers found that only when teachers see that a new program or practice enhances the learning of their students will their beliefs and attitudes change in a significant way.

When examining these models of staff development, it is apparent that leadership support is a fundamental component to the success of either of them. According to the Rand Change Agent Study (McLaughlin & Marsh, 1978), active support by principals

and district administrators is critical to the success of any change effort. According to McLaughlin and Marsh (1978), the Rand research sets the role of the principal as instructional leader in the context of strengthening the school improvement process through team building and problem solving in a "project-like" context. It suggests that principals need to give clear messages that teachers may take responsibility for their own professional growth. Stallings and Mohlman (1981) determined that teachers improved most in staff development programs where the principal supported them and was clear and consistent in communicating school policies. Likewise, Fielding, and Schalock (1985) report a study in which principals' involvement in teachers' staff development produced longer-term changes than when principals were not involved. In their discussion of factors that affect the application of innovations, Loucks and Zacchei (1983) wrote, ". . . administrators in successful improvement sites take their leadership roles seriously and provide the direction needed to engage teachers in the new practices" (p. 30). According to Huberman (1983), teachers' successful use of new skills often occurs when administrators exert strong and continuous pressure for implementation. He argues that, ". . . administrators, both at the central office and building levels, have to go to center stage and stay there if school improvement efforts are to succeed" (p. 27). While administrator presence is important, administrators must also act as gate-keepers of change so that "innovation overload" can be avoided (Anderson & Odden, 1986). While much research points to administrators as being key leaders in staff development and change, it is also true that others can take on leadership and support roles and may, in fact, be better placed to do so. Research on school improvement indicates that a team

approach can help orchestrate leadership and support "functions" which can be shared by administrators (building and district level), district coordinators or staff developers, teachers, and external trainers and consultants (Loucks-Horsley & Hergert. 1985). For example, Cox (1983) reports that while principals seem to play an important role in clarifying expectations and goals and stabilizing the school organization, central office coordinators, who often know more about a specific practice, can effectively coach teachers in their attempts to change their classroom behavior. Coordinated leadership can also help avoid situations such as a school's textbooks and curriculum not matching the instructional models teachers are being taught to use (Fielding & Schalock, 1985).

Student Demographics

Hilliard (1997) states the problem with staff development is that most forms cannot produce teachers that are success in the classroom. We are losing too many children unnecessarily to school failure and to low achievement. Not only do we fail to get from our brilliant children the type of achievement of which they are fully capable, the parallel to that is that we fail to get from ourselves the power of teaching that we too are fully capable of producing. This is a common practice in K-12 schools where the majority of the student population has low achievers and is of low socioeconomic status (SES). In his studies of achievement of students of low SES, he found that students in this situation have been successful with achievement levels that are extraordinarily high. The critical component to this scenario is that in this instance the teachers were trained to be successful. Hilliard proclaims that the elements to a successful staff development approach are:

- The staff developer provides a success model, demonstrated it with students, showed the teachers what to do, and were readily available to be observed and critiqued.
- Staff developers were physically present virtually all the time when the new teachers were being trained, and interacted with them during training.
- Theories were evolved to fit the individualized environment.
- Staff developers provided ongoing, focused feedback to teachers in training within the class setting.
- Time was set aside for deep reflection about the shared experiences that the teacher trainers and the teachers experienced.
- Techniques were developed, as varied as they were, with the discovery that many shared some of the same elements.
- In ALL cases, the technique, while important, was much less emphasized than the matters that we normally classify under *affect*. (p. 47)

In virtually all cases of traditional staff development, staff development activities involve adults talking to each other, demonstrating for each other, or role-playing for each other without any opportunity to show that children are changed as a consequence of the activities of faculty and others. He also feels that professional performances (master teacher/master professor) are also missing. That is to say, peak professional performances that are best practiced with children are not used to validate methodologies, raise interest, or build confidence. Moreover, there is no way for collective viewing and

analysis of peak performances. As a consequence, there is little shared reality among educators. Each deals with private images of classrooms uncorrected by reality.

These models of staff development were discussed that have solid foundations in research and practice, and are being used in increasingly robust forms throughout the country today. While each model requires somewhat different organizational supports to make it successful, it is also true that research points to a common set of attributes of the organizational context without which staff development can have only limited success (Loucks-Horsley et al., 1987). In organizations where staff development is most successful:

- Staff members have a common, coherent set of goals and objectives that they have helped formulate, reflecting high expectations of themselves and their students.
- Administrators exercise strong leadership by promoting a "norm of collegiality, " minimizing status differences between themselves and their staff members, promoting informal communication, and reducing their own need to use formal controls to achieve coordination.
- Administrators and teachers place a high priority on staff development and continuous improvement.
- Administrators and teachers make use of a variety of formal and informal processes for monitoring progress toward goals, using them to identify obstacles to such progress and ways of overcoming these obstacles, rather

than using them to make summary judgments regarding the "competence" of particular staff members (Conley & Bacharach, 1987).

- Knowledge, expertise, and resources, including time, are drawn on appropriately, yet liberally, to initiate and support the pursuit of staff development goals.

Presenter Presentation

In the minds of many educators, training is synonymous with staff development. Most teachers are accustomed to attending workshop-type sessions in which the presenter is the expert who establishes the content and flow of activities. Typically the training session is conducted with a clear set of objectives or learner outcomes. These outcomes frequently include awareness or knowledge and skill development (e.g., participants will demonstrate the appropriate use of open-ended questions in a class discussion). Joyce and Showers (1988) cite changes in attitudes, transfer of training, and "executive control" (the appropriate and consistent use of new strategies in the classroom) as additional outcomes. It is the trainer's role to select activities (e.g., lecture, demonstration, role-playing, simulation, micro-teaching, etc.) that will aid teachers in achieving the desired outcomes. Whatever the anticipated outcomes, the improvement of teachers' thinking is an important goal. According to Showers, Joyce, and Bennett (1987), the purpose of providing training in any practice is not simply to generate the external visible teaching "moves" that bring that practice to bear in the instructional setting but to generate the conditions that enable the practice to be selected and used appropriately and integratively. A major, perhaps the major, dimension of teaching skill is cognitive in nature. When

using the training model of staff development the assumption is that there are behaviors and techniques that are worthy of replication by teachers in the classroom. This assumption can certainly be supported by the large number of research-based effective teaching practices that have been identified and verified in the past 20 years (Sparks. 1983). Another assumption underlying this model is that teachers can change their behaviors and learn to replicate behaviors in their classroom that were not previously in their repertoire. As Joyce and Showers (1983) point out, training is a powerful process for enhancing knowledge and skills. "It is plain from the research on training," they say, "that teachers can be wonderful learners. They can master just about any kind of teaching strategy or implement almost any technique as long as adequate training is provided" (p. 2). Because of a high participant-to-trainer ratio, training is usually a cost-efficient means for teachers to acquire knowledge or skills. Many instructional skills require that teachers view a demonstration of their use to fully understand their implementation. Likewise, certain instructional techniques require for their classroom implementation that teachers have an opportunity to practice them with feedback from a skilled observer. Training may be the most efficient means for large numbers of teachers to view these demonstrations and to receive feedback as they practice.

The theoretical and research for the training model come from several sources, but the intensive research has been conducted by Joyce and Showers (1988). They have determined that, depending upon the desired outcomes, training might include exploration of theory, demonstration or modeling of a skill, practice of the skill under simulated conditions, feedback about performance, and coaching in the workplace. Their

research indicates that this combination of components is necessary if the outcome is skill development. In addition to those components identified by Joyce and Showers, Sparks (1983) cites the importance of discussion and peer observation as training activities. She notes that discussion is useful both when new concepts or techniques are presented and as a problem-solving tool after teachers have had an opportunity to try out new strategies in their classrooms. Training sessions that are spaced one or more weeks apart so that content can be "chunked" for improved comprehension allows teachers to have opportunities for classroom practice and peer coaching are shown to be more effective than "one-shot" training (Loucks-Horsley et al., 1987; Sparks. 1983). Sparks indicates that teachers may learn as much from their peers as from "expert" trainers. She also argues that school districts can afford the type of small-group training that she recommends when peers are used rather than more expensive external consultants. In reviewing the research, it was found that teachers preferred their peers as trainers. According to Wu (1987), the research also confirmed that when their peers are trainers, teachers feel more comfortable exchanging ideas, play a more active role in workshops, and report that they receive more practical suggestions. There is, however, evidence that indicates that expert trainers who have the critical qualities teachers value in their peers (e.g., a clear understanding of how a new practice works with real students in real classroom settings) can also be highly effective (Crandall, 1983).

CHAPTER III

THEORETICAL FRAMEWORK

The theoretical framework focuses on the variables that include: needs assessment techniques, content selection, teaching strategies, congruency with state and district goals, follow up activities, leadership support, demographic variables, time to learn and implement, objective selection, presenter preparation, student demographics, and teacher attitudes. These variables will be examined for their relationship to the dependant variable of student achievement. The assumption is staff devolvement will yield the intended outcome of student achievement when it is taught in such a way that the following elements have been included:

- Proper needs assessment has been made of the student population, teachers needs, and community needs;
- Objective selection based on the finding from the needs assessment;
- Teaching strategies are taken from the staff development course and implemented within the classroom appropriately;
- Correlation to school and district goals;
- Follow up activities that include modeling, feedback, collaboration, discussions, troubleshooting, and peer coaching;
- Support of school leadership;

- Taught in appropriate times during the day and at the appropriate location conducive to the success of the newly learned skill;
- Ongoing development is occurring in a cyclic pattern to promote constant monitoring, adjustment, and learning.

School districts must adhere to the goal of student learning as the primary outcome when it comes to professional development (Kelleher, 2003). The best professional development helps teachers to think critically about their profession, to develop new teaching strategies and new techniques for creating curriculum and assessments, and to measure how new practices have affected student learning. Staff development activities must be very closely related to school and district goals as well as student outcomes.

The definitions of all variables as they relate to teacher perceptions about the effectiveness of student achievement and the impact student achievement are discussed and research questions are presented. The variables selected for this investigation are demonstrated in Figure 2.

Definition of Variables

Dependent Variable:

Student Achievement: The measurement of students' ability to evidence in their behavior and test scores that knowledge has been gained to allow students to perform at or above grade level on the reading component of the Criterion Referenced Competency Test (CRCT).

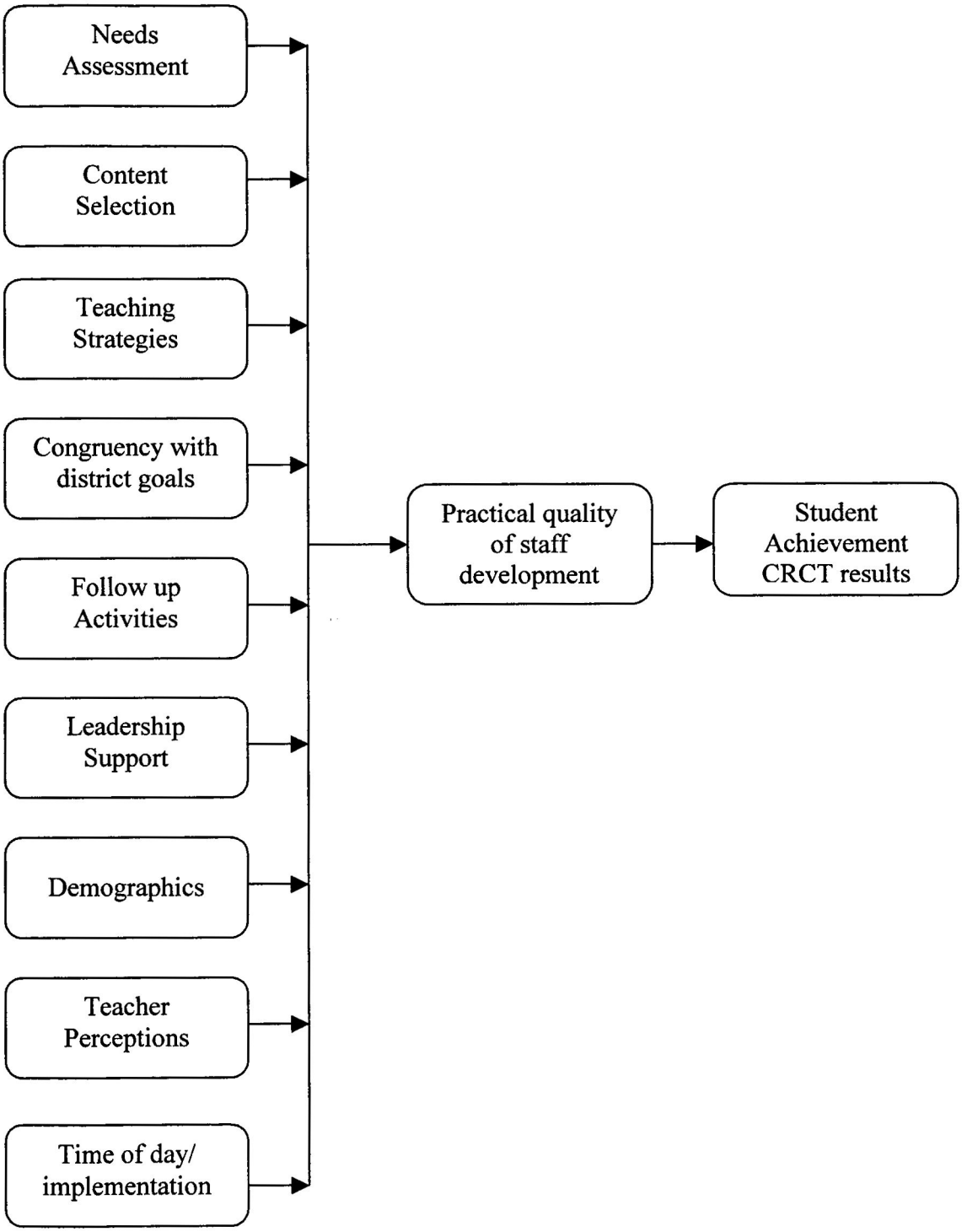

Figure 2: Relationship Among the Variables

Independent variables

Needs assessment: An accurate assessment for the needs of the staff, students, and community of a given school. It is that data that is obtained from student test scores, teacher requests, interviews, and observation of the school and community and culture.

Objective selection: Staff development courses chosen based on the data collected from a needs assessment to include analysis of test scores, teacher needs, community needs, and student needs.

Teaching Strategies: Learned strategies and new skills gained that are d routinely practiced by teachers as a result of taking a staff development course.

Congruency with district goals: Staff development courses that are in direct correlation to the mission and goals of the school and the school district.

Follow up Activities: Activities following a staff development course that is designed to allow opportunities for the participants to actively reflect, dialogue, observe modeling of new techniques and skills, obtain assistance if warranted, problem solve, test, troubleshoot, receive peer coaching, and receive feedback after attempts to implement the newly learned strategy.

Leadership support: Staff development courses that result in the newly acquired skill being encouraged and supported by the administrative team, incorporated into the teacher evaluation instrument; adequate resources supplied by the administrative staff to fit the staff development; staff development courses practiced by the administrative and support staff; opportunities for staff to discuss obstacles with the administrative team that are free from bias, judgment, or repercussion.

Time of implementation: The time allotted for teachers to learn, digest, and appropriately implement the learned staff development skill or technique. The time of day and location a course is taught.

Demographics: Student population as defined by socio-economic status and qualification for free lunch.

Teacher perceptions: The way in which a teacher feels about the practical aspects, implementation processes, and expectations of staff development and the impact on student achievement.

Presenter preparation: The presenter has full knowledge of the content in which they teach and are able to answer questions adequately for the learner to clearly understand the new skills taught.

Traditional Staff Development: Staff development courses that are presented to teachers over a 2-3 day period by a peer, corporation, consulting firm, or reform model representative that is presented in power point form, with descriptions of the newly applied skill that is modeled using adult participants, not students, that is supposed to have an effect on student achievement.

Kelleher (2003) insists that staff development is more efficient if it occurs in a cycle that begins with teachers setting specific goals for student achievement and ending with reflection on how teachers have met the goals for adult and student learning. Figure 3 demonstrates this relationship.

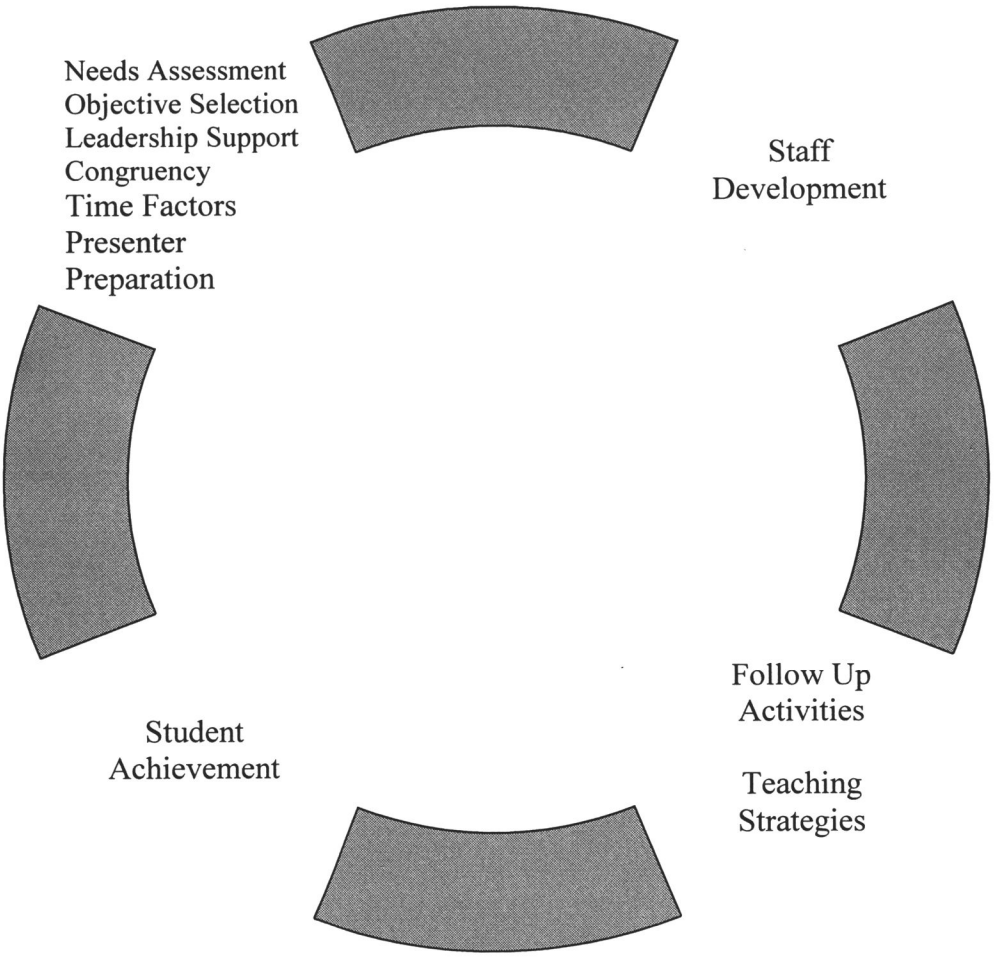

Figure 3. Staff Development Cycle

Research Questions

The research questions were derived from the relationship between the independent variables, needs assessment, content selection, teaching strategies, congruency with district goals, follow-up activities, leadership support, school demographics, and teacher perceptions as they relate to the dependent variable student achievement.

1. Is there a significant relationship between state and district goals and student achievement? (Items1-2)
2. Is there a significant relationship between needs assessment and student achievement? (Items 3-7)
3. Is there a significant relationship between objectives selected for staff development and student achievement? (Items 8-12)
4. Is there a significant relationship between teaching strategies learned at staff development and student achievement? (Items 13-19)
5. Is there a significant relationship between follow up activities and student achievement? (Items 20-27)
6. Is there a significant relationship between the preparedness of the presenter and student achievement? (Items 28-34)
7. Is there a significant relationship between the leadership support of the school and student academic achievement? (Items 35-38)
8. Is there a significant relationship between student performance on the CRCT test and student achievement? (Items 47-49)

9. Is there a significant relationship between the time a staff development course is offered and student achievement? (Items 50-52)

Limitations

1. All data collected from teachers were based on teacher perceptions, the accuracy of the data is based on the assumption that truthful answers were provided by the respondents.
2. The teachers at school number eight were not surveyed in this research. School 8 was closed after the 2003-2004 school year; surveys were distributed at a school with comparable student demographics and test scores.
3. There were 250 surveys distributed to ten schools in this study. Of the 250, only 143 were returned. The expectation was to receive at least 180 surveys from respondents. The lack of return may have skewed that data in some way.

CHAPTER IV

METHODS AND PROCEDURES

The purpose of this study is to examine each of the variables that are perceived to affect student achievement. The perceptions of the teachers is key in this study to finding out how they feel staff development has enabled students to perform better in their classrooms. This chapter provides details of the methods and procedures used in conducting the research study.

Research Design

A large metro area school district was selected for this study because of its methods of compliance to the *No Child Left Behind Act*. This school district changed policies that made it mandatory for each school to adopt a school reform model and implement the chosen reform model in their schools within a five-year time frame. Each school selected reform models based on the needs of their particular school population. The school district in this study did not choose a district wide reform model. Each reform model has a mandatory staff development component and ongoing assessments to provide data that reflects the effectiveness.

This study investigates the effect of traditional staff development as perceived by teachers on student achievement. This investigation is quantitative research. According to Borg and Gall (1989), "Quantitative researchers acknowledge fluctuations in human

behavior, but they also believe that here are general laws that hold across individuals" (p. 24). In addition, they report that "quantitative researchers are likely to study a population or sample of people rather than a few individuals" (p. 24).

The research analyzes the relationship between each of the variables presented and their perceived effect on student achievement in five high-performing schools and five low-performing schools in a metro area school district. The sample consists of 143 teachers that responded to the survey.

Sampling Procedures

A purposeful sample was taken of 10 elementary schools within this school district. Schools selected for this study were based on their performance on the reading portion of the CRCT test. Five high-performing schools and five low-performing schools were selected for this study to show variance in student achievement. Questionnaires were sent to the schools in Table 2.

Written authorization was secured by the school district (Appendix A). Surveys were personally delivered to Instructional Liaison Specialists and Assistant Principals at each individual school for distribution to certified personnel on staff that routinely attend staff development and were directly responsible for the implementation of the schools reform model. Teachers were asked to answer survey questions honestly return them to the designated distributor for each school. Surveys were completed by adult individuals on a voluntary basis. Each respondent was guaranteed anonymity and confidentiality so

Table 2

Variance in Student Achievement by School

	CRCT Reading		
	Year		
	2004	2003	Gail Score
School 1			
% Exceed Standard	87	88	-1
% Meet Standard	9	11	-2
% Not Meet Standard	4	1	-3
School 2			
% Exceed Standard	90	75	15
% Meet Standard	7	16	-9
% Not Meet Standard	2	9	-7
School 3			
% Exceed Standard	76	78	-2
% Meet Standard	18	21	-3
% Not Meet Standard	5	1	4
School 4			
% Exceed Standard	54	54	0
% Meet Standard	37	28	9
% Not Meet Standard	10	18	-8

Table 2 (continued)

	CRCT Reading		
	Year		
	2004	2003	Gail Score
School 5			
% Exceed Standard	82	76	6
% Meet Standard	15	17	-2
% Not Meet Standard	3	7	-4
School 6			
% Exceed Standard	14	23	-9
% Meet Standard	39	36	3
% Not Meet Standard	47	42	5
School 7			
% Exceed Standard	17	32	-15
% Meet Standard	44	39	5
% Not Meet Standard	39	29	10
School 8			
% Exceed Standard	33	46	-13
% Meet Standard	28	23	5
% Not Meet Standard	39	32	7

Table 2 (continued)

	CRCT Reading		
	Year		
	2004	2003	Gail Score
School 9			
% Exceed Standard	19	19	0
% Meet Standard	46	47	-1
% Not Meet Standard	34	34	0
School 10			
% Exceed Standard	26	27	-1
% Meet Standard	44	43	1
% Not Meet Standard	30	30	0

that participants are not identifiable in any published document. Surveys were collected by designated distributors and placed in envelopes for retrieval. The surveys were collected and analyzed using SPSS system for data analysis.

Description of the Instrument

The instrument consists of a 61-question survey that includes questions relating to the dependent variable, independent variables, student demographics and teacher demographics. It will examine the effectiveness of staff development, the goals of staff development, and teacher attitudes about attending staff development courses.

The intent of this study is to investigate whether student achievement is influenced by traditional staff development in the following areas: Congruency with Goals, Needs Assessment, Objective Selection, Teaching Strategies, Follow Up, Presenter Preparation, Leadership, Student Performance, Teacher Perceptions, and Time Factors.

CHAPTER V

ANALYSIS OF THE DATA

The focus of this study was to examine the efficacy of traditional staff development and the impact on student achievement. This chapter presents and analyzes data obtained from 10 schools.

In order to analyze the impact of staff development on student achievement, the data from the surveys that was administered to teachers, CRCT reading scores, and the percentage of students eligible for free and reduce lunch was gathered from the school system. The Georgia Criterion-Referenced Tests (CRCT) reading scores for 2002-2003 and 2003-2004 school years were used to measure student achievement. The CRCT reading score was used as the dependent variable to measure student achievement. The percentage difference of the number of student who meets or exceeded expectations on the CRCT reading for 2002-2003 and 2003-2004 for each school was calculated as a gain score respectfully to measure student achievement. Information regarding the percentage of students eligible for free and reduced lunch was used to classify the schools used in this study socio-economic status. The data was analyzed in hypotheses 1 through 13. The survey items were grouped to represent Congruency with goals (items 1-2), Needs assessment (items 3-7), Objective selection (items 8-12), Teaching strategies (items 13-19), Follow up (items 20-27), Presenter preparation (items 28-34), Leadership (items 35-38), Student performance (items 39-46), Teacher perceptions (items 47-49), Time factors

(items 50-52), Number of students who earned "A" (item 56), Number of students who were sent the office as results of discipline problems (item 57), Teacher gender (item 59), Teacher experience (item 60), and Teacher grade level (item 61). The response choices were assigned numerical values as follows: (5) Always; (4) Most Times; (3) Sometimes, (2) A Few Times, and (1) Never. The demographics questions choices were assigned numerical values based on the nominal or ordinal order in which they appeared on the survey.

The Statistical Package for the Social Sciences (SPSS) was used to summarize the data collected in this study. The following statistical procedures were used Pearson Correlation, Frequency, Factor Analysis, and Multiple Regression. The information presented in this chapter includes demographic information on the population sample and the results and analysis of the statistical tests applied to the null hypotheses.

Summary

This chapter presents the statistical analysis of the data obtained by analyzing the responses 143 teachers from 10 schools. The 18 hypotheses of the study were tested using the Statistical Package for the Social Sciences (SPSS), and the procedures used were Frequency, Pearson Correlation, Factor Analysis and the Regression statistical procedures. All of the statistical procedures were tested at the (.05) significance level.

Hypotheses Results

HO1: There is no significant relationship between state and district goals as it relates to staff development selection and student achievement.

Results indicate that there is no significant relationship with congruency of goals and the percentage of the students who meet or exceed expectations on the CRCT reading. A Pearson Correlation was used to determine if there is any significant relationship between the student performance on CRCT reading and congruency of goals. The results of the Pearson Correlation as shown in Table 3 indicate that the reading student performance on CRCT reading is not significantly related to congruency of goals. The Pearson correlation r coefficient value of .149, significant at the 0.075 level, is greater than the tested significance level of 0.05; therefore, the null hypothesis is accepted.

Table 3

Reading (CRCT) Correlated with Staff Development Variables

CRCT: Independent Variable	CRCT: Pearson R Correlation	Significance Level
Congruent Goals	.149	.075
Needs Assessment	.028	.739
Content Selection	.068	.416
Teaching Strategies	.004	.962
Follow Up Activities	.081	.336

Table 3 (continued)

CRCT: Independent Variable	CRCT: Pearson R Correlation	Significance Level
Presenter Preparation	.093	.270
Leadership Support	-.058	.488
Student Performance	-.050	.554
Teacher Perceptions	-.006	.948
Time Factors	-.043	.613

HO2: There is no significant relationship between needs assessment and student achievement.

Results indicate that there is no significant relationship with needs assessment and the percentage of the students who meet or exceed expectations on the CRCT reading. A Pearson Correlation was used to determine if there is any significant relationship between the student performance on CRCT reading needs assessment. The results of the Pearson Correlation as shown in Table 3 indicate that the reading student performance on CRCT reading is not significantly related to needs assessment. The Pearson correlation r coefficient value of .028 significant at the 0.739 level is greater than the tested significance level of 0.05; therefore, the null hypothesis is accepted.

HO3: There is no significant relationship between objective selection and student achievement.

Results indicate that there is no significant relationship with objective selection and the percentage of the students who meet or exceed expectations on the CRCT reading. A Pearson Correlation was used to determine if there is any significant relationship between the student performance on CRCT reading and objective selection. The results of the Pearson Correlation as shown in Table 3 indicate that the reading student performance on CRCT reading is not significantly related to objective selection. The Pearson correlation r coefficient value of .068 significant at the 0.416 level is greater than the tested significance level of 0.05; therefore, the null hypothesis is accepted.

HO4: There is no significant relationship between teaching strategies learned at staff development and student achievement.

Results indicate that there is no significant relationship with teaching strategies and the percentage of the students who meet or exceed expectations on the CRCT reading. A Pearson Correlation was used to determine if there is any significant relationship between the student performance on CRCT reading and teaching strategies. The results of the Pearson Correlation as shown in Table 3 indicate that the reading student performance on CRCT reading is not significantly related to teaching strategies. The Pearson correlation r coefficient value of .004 significant at the 0.962 level is greater than the tested significance level of 0.05; therefore, the null hypothesis is accepted.

HO5: There is no significant relationship between follow up activities and s student achievement.

Results indicate that there is no significant relationship with follow up activities and the percentage of the students who meet or exceed expectations on the CRCT reading. A Pearson Correlation was used to determine if there is any significant relationship between the student performance on CRCT reading and follow up activities. The results of the Pearson Correlation as shown in Table 3 indicate that the reading student performance on CRCT reading is not significantly related to follow up activities. The Pearson correlation r coefficient value of.081 significant at the 0.336 level is greater than the tested significance level of 0.05; therefore, the null hypothesis is accepted.

HO6: There is no significant relationship between presenter preparation and student achievement.

Results indicate that there is no significant relationship with presenter preparations and the percentage of the students who meet or exceed expectations on the CRCT reading. A Pearson Correlation was used to determine if there is any significant relationship between the student performance on CRCT reading and presenter preparations. The results of the Pearson Correlation as shown in Table 3 indicate that the reading student performance on CRCT reading is not significantly related to presenter preparations. The Pearson correlation r coefficient value of .093 significant at the 0.270 level is greater than the tested significance level of 0.05; therefore, the null hypothesis is accepted.

HO7: There is no significant relationship between the leadership support of the school and student academic achievement.

Results indicate that there is no significant relationship with leadership support of the school and the percentage of the students who meet or exceed expectations on the CRCT reading. A Pearson Correlation was used to determine if there is any significant relationship between the student performance on CRCT reading and leadership support of the school. The results of the Pearson Correlation as shown in Table 3 indicate that the reading student performance on CRCT reading is not significantly related to leadership support of the school. The Pearson correlation r coefficient value of -.058 significant at the 0.488 level is greater than the tested significance level of 0.05; therefore, the null hypothesis is accepted.

HO8: There is no significant relationship between student performance and student achievement.

Results indicate that there is no significant relationship with student performance as a result of staff development of weak and problem students and the percentage of the students who meet or exceed expectations on the CRCT reading. A Pearson Correlation was used to determine if there is any significant relationship between the student performance on CRCT reading and student performance of weak and problem students. The results of the Pearson Correlation as shown in Table 3 indicate that the reading student performance on CRCT reading is not significantly related student performance. The Pearson correlation r coefficient value of -.050 significant at the 0.554 level is greater than the tested significance level of 0.05; therefore, the null hypothesis is accepted.

HO9: There is no significant relationship between teacher perceptions of traditional staff development and student achievement.

Results indicate that there is no significant relationship with teacher perceptions of traditional staff development and the percentage of the students who meet or exceed expectations on the CRCT reading. A Pearson Correlation was used to determine if there is any significant relationship between the student performance on CRCT reading and teacher perceptions of traditional staff development. The results of the Pearson Correlation as shown in Table 3 indicate that the reading student performance on CRCT reading is not significantly related to teacher perceptions of traditional staff development. The Pearson correlation r coefficient value of -.006 significant at the 0.948 level is greater than the tested significance level of 0.05; therefore, the null hypothesis is accepted.

HO10: There is no significant relationship between the time a staff development course is offered and student achievement.

Results indicate that there is no significant relationship with time a staff development course is offered and the percentage of the students who meet or exceed expectations on the CRCT reading. A Pearson Correlation was used to determine if there is any significant relationship between the student performance on CRCT reading and the time a staff development course is offered. The results of the Pearson Correlation as shown in Table 3 indicate that the reading student performance on CRCT reading is not significantly related to the time a staff development course is offered. The Pearson

correlation r coefficient value of -.043 significant at the 0.613 level is greater than the tested significance level of 0.05; therefore, the null hypothesis is accepted.

HO11: There is no significant relationship between student demographics and student achievement.

Results indicate that there is a significant relationship with number of students earning an "A," the number of student who have discipline problems that are sent to the office, teacher grade level and the percentage of student eligible for free and reduce lunch and the percentage of the students who meet or exceed expectations on the CRCT reading. A Pearson Correlation was used to determine if there is any significant relationship between the student performance on CRCT reading and the demographic variables. The results of the Pearson Correlation are shown in Table 4.

Table 4

Student Achievement Correlated with Demographic Variables

CRCT: Demographic Variables	CRCT: Pearson R Correlation	Significance Level
Number of Students Earning Grades of A	-.339	.000
Number of Students with Discipline Problems	.269	.001
Teacher Gender	.075	.381
Teacher Grade Level	-.080	.334
Percent of Students on Free and Reduced Lunch	.207	.014

HO12: There is an inverse relationship between the number of students earning an "A" and student achievement.

The Pearson correlation r coefficient value of -.339 significant at the 0.000 level is less than the tested significance level of 0.05; therefore, the null hypothesis is rejected.

HO13: There is a significant relationship between the number of student who have discipline problems and student achievement.

The Pearson correlation r coefficient value of .269 significant at the 0.001 level is less than the tested significance level of 0.05; therefore, the null hypothesis is rejected.

HO14: There is no significant relationship between teacher gender and student achievement.

The Pearson correlation r coefficient value of .075, significant at the 0.381 level, is greater than the tested significance level of 0.05

HO15: There is no significant relationship between teacher experience and s student achievement.

The Pearson correlation r coefficient value of -.080, significant at the 0.344, level is greater than the tested significance level of 0.05.

HO16: There is a significant relationship between teacher grade level and s student achievement.

The Pearson correlation r coefficient value of .207 significant at the 0.014 level is less than the tested significance level of 0.05; therefore, the null hypothesis is rejected.

HO17: There is an inverse significant relationship between the percentage of students eligible for free and reduce lunch at the school and student achievement.

The Pearson correlation r coefficient value of -.339 significant at the 0.000 level is less than the tested significance level of 0.05; therefore, the null hypothesis is rejected.

HO18: What demographic and other variables would be placed in the same factor as student achievement?

A Factor analysis was used to determine if there were any variables with which student achievement was associated. The factor analysis assumes that all variables are independent, unlike the regression analysis which has a defined dependent variable. The results of the Factor Analysis are shown in Table 5.

Table 5

Rotated Component Matrix[a]

	Component					
	1	2	3	4	5	6
NEEDASSM	.900	1.654E-02	-2.198E-02	-1.768E-02	7.182E-02	-2.656E-02
TSTRATEG	.876	-2.451E-02	-9.547E-02	-4.405E-03	3.609E-02	.107
FOLLOWUP	.874	3.716E-02	2.955E-02	7.909E-03	-7.838E-02	.156
STUDPRF	.823	-.265	.150	3.639E-02	-7.719E-02	.163
OBJSELEC	.822	.170	-.168	-6.111E-02	.124	-.139
LEADSHP	.733	-.140	.113	.153	.227	.299
PRESENTP	.702	-3.198E-02	6.254E-02	-4.364E-02	.473	-2.716E-02
CGOALS	.613	.178	1.749E-02	.140	.380	-.368
Number of Students Earning a Grade of (A)	-2.215E-02	-.845	-3.986E-02	1.875E-02	-9.746E-02	-.126
Number of Students with Discipline Problems	-6.768E-02	.785	-8.071E-02	5.029E-02	-.133	-.205
Teacher Gender	.174	4.343E-02	.796	4.032E-02	-.161	.124
Teacher Experience	.142	.220	-.705	7.753E-02	-9.575E-02	.160
Teacher Grade Level	-5.666E-02	.300	.488	-.121	.265	-6.772E-02
Percentage of Students Eligible for FRL	1.314E-02	.276	9.277E-03	.890	3.227E-02	-8.162E-02
CRCTR	3.583E-02	.435	.156	-.750	8.445E-03	-3.880E-02
TPREP	.171	-2.935E-02	2.822E-02	5.386E-02	.899	8.121E-02
TFACTOR	.154	-3.226E-02	-6.647E-02	-6.507E-02	6.186E-02	.899

Extraction Method: Principal Component Analysis

Rotation Method: Varimax with Kaiser Normalization

[a]Rotation converged in 6 iterations

(Cgoals) Congruency with goals, (Needassm) Needs assessment, (Objselec) Objective selection, (Tstrateg) Teaching strategies, (Followup) Follow up, (Presentp) Presenter preparation, (Leadshp) Leadership, (Studprf) Student performance, (Tprep) Teacher perceptions, and (Tfactor) Time factors, CRCTR (Percentage of students who meet or exceeded expectation on the CRCT reading gain score 2003-2004 school years)

Factor I: The results indicate that the Needs Assessment, Teaching Strategy, Follow up, Student Performance, Objective Selection, Leadership, Presenter Preparations, and Congruency of Goals are loaded in Factor 1 (Table 6).

Table 6

Factor 1: Rotated Component Matrix

Variable	Factor
Needs Assessment	.900
Teaching Strategies	.876
Follow-up Activities	.847
Student Performance	.823
Content Selection	.822
Leadership Support	.733
Presenter Preparation	.702
Congruency with Goals	.613

Factor 2: The results indicate that the number of students who have discipline problems, and inversely the number of student earned an "A" were loaded in Factor 2 (Table 7).

Table 7

Factor 2: Rotated Component Matrix

Variable	Factor
Number of students earning a grade of A	-.845
Number of students with discipline problems	-.785

Factor 3: The results indicate that teacher gender, teacher grade level, and inversely teacher experience were loaded in Factor 3 (see Table 5).

Factor 4: The results indicate that, inversely, the percentage of students eligible for free and reduced lunch at the school and student achievement (how CRCT Reading met or exceeded expectations) are loaded in Factor 4 (Table 8).

Table 8

Factor 4: *Rotated Component Matrix*

Variable	Factor
Percentage of students eligible for free and Reduced Lunch	.890
Student achievement according to the reading score on the CRCT	-.750

Factor 5: The results indicate that teacher perceptions loaded in Factor 5 (see Table 5).

Factor 6: The results indicate that time factors loaded in Factor 6 (see Table 5).

The results indicate that the student achievement (percentage of student who meet or exceeded on the CRCT Reading), and the inverse of the percentage of student eligible for free and reduce lunch at the school had similar variance relative to all of variables used in this study. This means that when these variables are interacting simultaneously and treated independently the following factor groups identify those variables with similar variants commonality and association.

In a Multiple Regression, the dependent variable Student Achievement (percent of students exceeding the CRCT Reading) is explained by the following independent variables: Congruency of Goals, Needs Assessment, Teaching Strategy, Objective Selection, Follow up, Presenter Preparation, Leadership, Student Performance, Teacher Perception, Time Factors, The number of students who earned "A's," The number of students with discipline problems, Percentage of students eligible for Free and Reduced Lunch in the classroom, Teacher Gender, Teacher Grade Level, Teacher Experience, and Percentage of students eligible for Free and Reduce lunch in the school.

The Multiple Regression is used to test the design model where Student Achievement is the dependent variable and all other variables are treated as independent variables. This model is used to determine which of the independent variables are predictors or explain the variations in Student Achievement. The results are displayed in Table 9.

Table 9

Results of Multiple Regression Analysis

Variable	Beta	t	Significance level
Percentage of students eligible for free lunch	-.502	-7.230	.000
Percentage of students earning "A" grades	-.299	-.3887	.000
Number of students with discipline problems	.226	2.915	.004
Teacher Grade Level	.138	2.017	.046

The results of the regression indicate that the percentage of students eligible for free and reduced lunch in the at the school, Number of students earning an "A," Number of students with discipline problems who are sent to the office, and teacher grade level explain the variations of the percentage of students who meet or exceed expectation on the CRCT reading.

The results also indicate that the Percentage of Students eligible for Free and Reduce Lunch at School (beta = .502), Number of students earning an "A" (Beta = -.299), Number student with Discipline problems who had to be sent to the office (Beta =

.226), and Teacher Grade level (Beta = .138) tend to explain student performance on CRCT reading significantly (at .05 level). It should be noted that the number students who earned an "A" and the percentage of students eligible for free and reduced lunch at the school have an inverse significant relationship with student performance on the CRCT reading as indicated by the negative beta coefficients. The adjusted R Square is 0.394 indicating that approximately 40% of the variance on the CRCT reading is explained by the four variables leaving 60% of the variance to be explained by variables not included in this study. The F ratio 21.601 is significant at $p=0.000 < 0.05$ level indicating that the percentage of students eligible for free and reduced lunch at the school, Number of students earning an "A," Number of student with Discipline problems who had to be sent to the office, and teacher grade level contribute significantly to the variance on student performance on the CRCT reading (Table 10). The other variables are outside of the equation indicating no significant relationship.

Table 10

Coefficients[a]

		Unstandardized Coefficients		Standardized Coefficients			
		Beta	Std. Error	Beta	Std. Error	t	Sig.
1	(Constant)	4.320	3.028			1.427	.156
	Percentage of students eligible for FRL at School	-.236	.046	-.404	.078	-5.144	.000
2	(Constant)	33.298	5.610			5.936	.000
	Percentage of students eligible for FRL at School	-.276	.042	-.471	.071	-6.617	.000
	Number of students earning a grade of (A)	-8.581	1.455	-.420	.071	-5.899	.000
3	(Constant)	17.109	7.726			2.214	.028
	Percentage of students eligible for FRL at School	-.296	.041	-.506	.070	-7.205	.000
	Number of students earning a grade of (A)	-6.478	1.583	-.317	.077	-4.092	.000
	Number of students with discipline Problems	5.154	1.742	.232	.078	2.959	.004
4	(Constant)	10.025	8.408			1.192	.235
	Percentage of students eligible for FRL at School	-.294	.041	-.502	.069	-7.230	.000
	Number of students earning a grade of (A)	-6.109	1.576	-.299	.077	-3.877	.000

Table 10 (continued)

	Unstandardized Coefficients		Standardized Coefficients			
	Beta	Std. Error	Beta	Std. Error	t	Sig.
Number of students with discipline Problems	5.023	1.723	.226	.078	2.915	.004
Teacher grade level	2.024	1.003	.138	.068	2.017	.046

[a]Dependent Variable: CRCTR

CRCT = Percentage of students who met or exceeded expectations on the CRCT reading gain score 2003-2004 school years

ANOVA[e]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	9733.567	1	9733.567	26.461	.000[a]
	Residual	50026.752	136	367.844		
	Total	59760.319	137			
2	Regression	19986.766	2	9993.383	33.920	.000[b]
	Residual	39773.553	135	294.619		
	Total	59760.319	137			
3	Regression	22426.121	3	7475.374	26.831	.000[c]
	Residual	37334.198	134	278.613		
	Total	59760.319	137			
4	Regression	23534.041	4	5883.510	21.601	.000[d]
	Residual	36226.278	133	272.378		
	Total	59760.319	137			

a. Predictors: (Constant), Percentage of students eligible for FRL at School

b. Predictors: (Constant), Percentage of students eligible for FRL at School, Number of students earning a grade of (A)

Table 10 (continued)

c. Predictors: (Constant), Percentage of students eligible for FRL at School, Number of students earning a grade of (A), Number of student discipline problems

d. Predictors: (Constant), Percentage of students eligible for FRL at School, Number of students earning a grade of (A), Number of student discipline problems, Teacher grade level

e. Dependent Variable: CRCTR

Model Summary

					Change Statistics		
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	Sig. F. Change
1	.404[a]	.163	.157	19.17925	.163	26.461	.000
2	.578[b]	.334	.325	17.16447	.172	34.802	.000
3	.613[c]	.375	.361	16.69172	.041	8.755	.004
4	.628[d]	.394	.376	16.50388	.019	4.068	.046

a. Predictors: (Constant), Percentage of students eligible for FRL at school

b. Predictors: (Constant), Percentage of students eligible for FRL at school, Number of students earning a grade of (A)

c. Predictors: (Constant), Percentage of students eligible for FRL at school, Number of students earning a grade of (A), Number of student discipline problems

d. Predictors: (Constant), Percentage of students eligible for FRL at school, Number of students earning a grade of (A), Number of student discipline problems, Teacher grade level

CHAPTER VI

FINDINGS, CONCLUSIONS, IMPLICATIONS, AND RECOMMENDATIONS

Findings

The testing of the hypothesis as stated in the research questions identified four factors significant to student achievement as it relates to staff development. Results also revealed that there were no significant relationships between all other variables in this study.

1. There is a significant relationship between students eligible for free and reduced lunch and student achievement. This can be interpreted as schools with fewer percentages of students eligible for free and reduce lunch had better performance and a greater percentage of students who meet or exceeded expectations on the CRCT reading.
2. There is a significant relationship between student earning grades of A and student achievement. This result may be explained by the pressure placed on teachers to give A's, or the adjustments in weights on graded materials, or adjustments made on grading scales that is not a true representation of the traditional range for the issuance of the grade letter A.
3. There is a significant relationship between the number of students with discipline problems and student achievement. This may be explained by the

removal or suspension of problem students that made a positive impact on the students that remained in the classroom.

4. There is a significant relationship between teacher grade level and students achievement. This may be due to heavy concentration in schools with tutoring students in the target grades fourth and fifth.
5. There is no significant relationship with teacher perceptions of traditional staff development and the percentage of the students who meet or exceed expectations on the CRCT reading.
6. There is no significant relationship with needs assessment and the percentage of the students who meet or exceed expectations on the CRCT reading.
7. There is no significant relationship with teaching strategies and the percentage of the students who meet or exceed expectations on the CRCT reading.
8. There is no significant relationship with congruency school and district goals and the percentage of the students who meet or exceed expectations on the CRCT reading.
9. There is no significant relationship with follow up activities and the percentage of the students who meet or exceed expectations on the CRCT reading.
10. There is no significant relationship with leadership support of the school and the percentage of the students who meet or exceed expectations on the CRCT reading.

11. There is no significant relationship with time a staff development course is offered and the percentage of the students who meet or exceed expectations on the CRCT reading.
12. There is no significant relationship with student performance as a result of staff development of weak and problem students and the percentage of the students who meet or exceed expectations on the CRCT reading.
13. There is no significant relationship with presenter preparations and the percentage of the students who meet or exceed expectations on the CRCT reading.
14. There is no significant relationship with objective selection and the percentage of the students who meet or exceed expectations on the CRCT reading.
15. There is a significant relationship with number of students earning an "A", the number of student who have discipline problems that are sent to the office, teacher grade level and the percentage of student eligible for free and reduce lunch and the percentage of the students who meet or exceed expectations on the CRCT reading.
16. There is no significant relationship between teacher gender and student achievement.
17. There is no significant relationship between teacher experience and student achievement.

The results indicate that the percentage of students eligible for free and reduced lunch in the at the school, Number of students earning an "A," Number of Student with

Discipline problems who are sent to the office, and teacher grade level predictors or explain the variations of the percentage of students who meet or exceed expectation on the CRCT reading. This means the staff development does not have an impact of student achievement, and that there other more prominent factor.

Conclusions

The null hypothesis for items 1-10 with regard to the findings were accepted. There was no significant relationship between; teacher perceptions, needs assessments, teaching strategies, congruency with state and district goals, follow up activities, leadership support, the time courses are offered, student performance on the CRCT, presenter preparation, objective selection, and student demographics.

Implications

This research studies teacher's perceptions of the effectiveness of staff development to improve student achievement. The effects of staff development and teacher perceptions are evident in the analysis of the variables in this study. The implications of these findings suggest there be further experimental studies conducted in ways to make staff development courses more effective in making an impact on student achievement. School systems should re examine their purpose and means of utilizing staff development. Staff development in its traditional form has not made a significant impact on student learning. School systems should take a closer look at the teachers they employ and the skills the teachers possess and let these be some of the indicators that drive the staff development opportunities and support systems for schools.

Recommendations

The main focus of this research project has been to determine if staff development has an impact on student academic learning. The findings reveal that the methods examined in this study did not impact student learning; however these methods are the ones commonly used in school systems to improve student achievement and promote growth and development in teachers. Based on the findings from this study several recommendations can be made.

With respect to the factor analysis that indicated the inverse relationship between student achievement and students eligible for free and reduced lunches:

1. It is recommended that staff development be conducted to make teachers aware of the dynamics associated with students and socio economic status. Teacher should research the characteristics associated with this phenomenon.
2. It is recommended that teachers and schools after having been made aware of these dynamics formulate strategies and solutions that will counteract the effects of SES.
3. It is recommended that the staff develop a strategic plan of implementation of these newly developed strategies to include all shareholders.

With respect to the factor analysis and the above recommendations it is recommended that staff development may want to concentrate of the problems teachers have with student achievement.

1. Teachers may not reveal or even know areas that require personal growth. They may not feel comfortable revealing to leadership a lack of understanding

of various teaching techniques. When they are allowed the opportunity to list particular problems that impede their success in improving their input into student achievement, when addressed properly the probability of reversing the output may occur.

2. Ensure that teachers are not only attending staff development that train them in new reform models, but actually address their personal issues with student achievement and implementation of the instructional program.
3. Give teachers opportunities to share success and failures they may be experiencing in an open forum where there is a wealth of knowledge and experience to get answers to questions and problems they may be facing.

In my interview with Hilliard (2004), he revealed that the best form of staff development is when a master teacher literally develops the teaching capacity of another teacher. He continues by stating often times new teachers, or ineffective teachers are not aware of the incompetence and do not know who to ask for help, what they need help with, or how to fine tune their craft knowledge. My experience as a teacher and a Teacher Support Specialist tells me that teachers will not readily admit to their areas of weakness for fear of being place on a professional development plan, negative attention that will cause more scrutiny that usual, or recommendation for nonrenewal of contract. The very nature of the job causes teachers to experience students in isolation, receive one-sided views of their abilities, and troubleshoot alone. Are teachers comfortable in asking for help? Do they ask for help? Are they allowed opportunities to observe highly qualified and effective teachers in action as they interact with students? The instrument did not

test the knowledge of the teachers, or their perception of their effectiveness, strengths or weaknesses. Further this study did not address the comfort level of teachers with the leadership of the school to ask for help with subject matter they struggle to teach. The researcher believes that many teachers are not fully prepared from their teaching programs to deal with problems they face in the classroom and once they accept a teaching position, they feel that they can't admit to any shortcomings for fear of appearing incompetent or face a non renewal of contract by the administrator if they ask for help.

With respect to the factor analysis, it is recommended that policy makers reorganize and formulate policies in regard to staff development.

1. Make changes in policies that govern the usage of staff development.
2. Cleary define staff development and distinguish it from teacher trainings. Teacher trainings are designed to teach reform models or the latest teaching fad that is believed to make a difference in student performance. Upon examining the data generated by this study, the researcher realized the instrument did not address the nature of the staff development. It seems that many staff development classes offered in schools utilizing site based management are dictated by the reform model that is being used at the school. When considering the effectiveness of staff development on student academic learning consideration has to be given to the goals. Was the initial goal to improve the teachers' ability to implement any type of curriculum? Or was the initial goal to increase the teachers' ability to teach a particular reform

model? Reform models come, go, change shape, and vary from schools and districts. When implementing staff development programs, school districts need to restructure staff development courses into two categories; staff development and reform model training. Further study should also be conducted to examine how much money is spent to develop staff, and how much money is spent to train staff for particular reform models. Examine how much time teachers spend in developing themselves and how much time they spend in training for reforms. These are key factors to understanding the impact on student learning.

3. Look into customized staff development. Staff development may have to be tailored to fit the teacher.
4. School systems should have a direct connection to teacher preparation programs that go far beyond providing a place for the student to complete a teaching practicum. School systems need to sit down with policy makers in teacher preparation programs to make decisions about college and university curriculum that will relate to student achievement. Potential teachers need to understand they dynamics of SES, testing strategies, assessment processes, data driven instruction, and how these factors all fit together increase student performance.
5. Conduct experimental studies on the above recommendations to ensure that money is well spent on research conducted within the school system that is directly related to the students in the school district.

This study recommends that further study be conducted on the how staff development is used in schools today. This study examined the congruency with district goals and staff development, however, there was not a distinction made between district goals and school reform models. One of the reasons that staff development is not making an impact o student academic learning could be because efforts are being concentrated on developing the reform that is never a permanent fixture in school systems and not developing teachers that are. In order for staff development to have a true impact on student academic learning, educators, administrators, and school districts need to closely examine the staff development practices that are utilized and examine the expected outcomes of the staff development.

According to the Iowa Association of School Boards website, the key to improving staff development is asking the right questions. First you must identify an initiative based on a needs assessment of your school, use guiding questions to create specific questions, and consider possible actions. Effective professional development is a key component of successful schools and districts. To design an effective professional development program, school leaders need to make sure that every activity is focused on student learning. Schools should be learning communities, not just for students, but for teachers, administrators, and staff members. For some schools, this may be a departure from the past when professional development was primarily focused on the needs of adults in the school, such as offering teachers sessions on stress management. But as teachers have pointed out, an in-service on stress management often misses the point.

Teachers are stressed out because they are under increasing pressure to raise student achievement. So what they really need is help in accomplishing this.

In Table 11 are examples of questions school leaders may want to consider to ensure that they bring quality staff development to their staff.

Table 11

Staff Development Questions

Reform Initiative: Linking Staff Development to Student Learning		
Guiding Questions	System Components	Specific Questions
Technical Domain What are the implications of this initiative for what and how students learn and how we assess their progress?	Standards Curriculum *Instruction* *Assessment*	• How can we ensure that staff development efforts are focused on improving classroom practices (e.g., *instruction* and *assessment*)? • How can we use student *assessment* data from both large-scale and classroom assessments to guide staff development?

Table 11 (continued)

Reform Initiative: Linking Staff Development to Student Learning		
Guiding Questions	System Components	Specific Questions
Personal Domain Will our attitudes and skills contribute to the success of this initiative?	Staff Development *Leadership & Supervision* *Internal Communications* *Climate & Culture*	• How can school *leadership* help create a learning community? • How can we better use *internal communication processes* to help teachers learn from one another? • How can we create a *school culture* that supports more intensive staff development?
Organizational Domain Will our organizational support systems contribute to the success of this initiative?	External Environment *Stakeholders* *Resource Allocation* *Technology* Accountability	• How can we help *stakeholders* (e.g., parents) understand the importance of devoting more time to staff development? • How can we better use our *resources* (e.g., time) to support staff development efforts? • How can *technology* support staff development?

Staff development possesses a useful "craft knowledge" that guides the field. This craft knowledge includes ways to organize, structure, and deliver staff development programs (Caldwell, 1989). It has been disseminated in the past decade through publications such as the *Journal of Staff Development, Educational Leadership,* and *Phi Delta Kappan*, and through thousands of presentations at workshops and conventions. As a result, in the past 20 years hundreds of staff development programs have been established in urban, suburban, and rural school districts throughout the United States and Canada. This craft knowledge serves another useful purpose—it can guide researchers in asking far better questions than they could have asked a decade ago.

APPENDIX

Survey of Teachers' Opinion About Staff Development

Dear Teachers:

Please facilitate the administration of this questionnaire by answering the following questions about staff development anonymously. In completing this questionnaire you are agreeing to provide data in complete confidentiality for *research purposes only* as you, your school or school system cannot be identified.

Thanks for your cooperation

Tracey Allen

Use the following response scale to *select one response per item:*

1 = Strongly Disagree; 2 = Disagree; 3 = Not Sure; 4 Agree; 5 = Strongly Agree

Please think of the staff development workshops attended as related to the following items, and select *one response per item.*

B. Generally, staff development workshops for teachers:	1	2	3	4	5
1. Cover goals that are congruent with the school district's curriculum goals.					
2. Get teachers to practically develop classroom goals to match the school district's curriculum goals					
3. Provide practical techniques for identifying the causes for those students who perform below grade level					

Appendix (continued)

	1	2	3	4	5
4. Provide practical techniques for identifying the causes for students' weaknesses on standardized tests					
5. Provide practical techniques for identifying the causes for students who give discipline problems					
6. Provide practical techniques for identifying differences in students' learning styles					
7. Provide practical techniques for identifying brain-based orientation of discipline problem and/or weak students					
8. Provide practical steps for constructing objectives to teach for higher order thinking skills so that weak students could develop such skills					
9. Provide practical steps to construct objectives to teach for the different dimensions of the State's curriculum					
10. Provide practical steps that teachers could use to construct objectives to teach for the different dimensions of standardized tests					
11. Put teachers in work sessions to utilize testing techniques to construct multiple-choice tests for measuring students' performance on higher order thinking skills (such as application, analysis, synthesis, evaluation)					
12. Put teachers in work sessions to utilize testing techniques to construct multiple-choice tests to match the state's criterion reference tests					
13. Demonstrate in practical sessions how to select curriculum materials to meet the needs of students with different learning styles					

Appendix (continued)

	1	2	3	4	5
14. Demonstrate in practical sessions how to select curriculum materials to teach for the district's curriculum goals					
15. Demonstrate in practical sessions techniques for utilizing students' everyday experiences to teach higher order thinking skills					
16. Provide experiential activities in which teachers experience their own creativity in order to plan experiences for facilitating students to be creative					
17. Provide practical sessions in which teachers utilize their personal experiences to construct higher order thinking skills as a basis for helping weak students to formulate higher order thinking skills from everyday experiences					
18. Get teachers in practical sessions to construct operational strategies for helping weak students to develop higher order thinking skills (application, analysis, synthesis, evaluation)					
19. Get teachers in practical sessions to construct operational strategies for enabling students to connect higher order thinking skills learned in one subject area to another subject area					
20. Show how to gather data on students' baseline performance before utilizing the new materials, methods or technology					
21. Show how to gather evidence during the implementation of the new staff development practice so as to make adjustments					
22. Provide techniques that work for involving the parents of low achieving students					

Appendix (continued)

	1	2	3	4	5
23. Provide techniques that work for involving parents of discipline problem students					
24. Provide techniques that work for getting parents of weak students to help with home work or finding a mentor to help					
25. Provide techniques that work for getting parents of discipline problem students to help with discipline or finding a mentor to help					
26. Show practical steps for evaluating the effectiveness of the new strategies being presented for practice in my classroom					
27. Show how to utilize the results of evaluation to develop alternative strategies					
C. At Staff Development or Teachers' Workshops:					
28. The presenters are fully prepared and know how to relate the subject matter to actual issues in the classrooms					
29. Materials are presented (by power-point or transparences, etc) while teachers listen with some question and answer session at the end					
30. The presenters give opportunities to teachers to dialogue about what could work in classrooms and what could not					
31. The presenters explain the materials, then model/demonstrate practically how they could be utilized					
32. The presenters explain the steps of the method/strategy, then get teachers to role-play or practice the strategy for application in their classrooms					
33. The presenters get teachers to utilize the materials and evaluate their effectiveness					
34. The presenters arrange for a process to follow-up the practice of the new skills in my classroom					

Appendix (continued)

	1	2	3	4	5
D. Generally, school leadership team:					
35. Provide support to teachers to practice skills learned in staff development workshops					
36. Provide planning time to teachers to develop materials to practice skills learned at workshops					
37. Observe and provide feedback on how the new skills learned at workshops are practiced in classrooms					
38. Observe teachers on evaluation instruments and commented positively when new skills learned at workshops are being practiced					
E. As a result of staff development workshops weak or discipline problem students:					
39. Gained knowledge and skills to earn A and B grades in reading					
40. Performed equally well on tests as compared with average ability students					
41. Improved their behavior so as to benefit from learning					
42. Improved in using higher order thinking skills in response to teacher questions					
43. Improved in asking higher order thinking skills questions in response to teacher explanations					
44. Applied themselves on task to complete assignments on time					
41. Improved their behavior so as to benefit from learning					
42. Improved in using higher order thinking skills in response to teacher questions					
43. Improved in asking higher order thinking skills questions in response to teacher explanations					
44. Applied themselves on task to complete assignments on time					

Appendix (continued)

	1	2	3	4	5
45. Have *not* been referred to the office for discipline					
46 Worked independently without disturbing others					
F. Generally:					
47. Staff development workshops are worth the cost and time of teachers because of the benefits in terms of improved students' performance					
48. If teachers were given techniques and time to study their students' problems and discover their own solutions, it would have a greater impact on students' performance than staff development workshops					
49. If teachers organized their own workshops on issues that concerned them, it would have a greater impact on students' performance than staff development workshops					
50. Staff development workshops are held at convenient times when teachers could reflect upon the experiences for application					
51. The workshops' skills are often presented too fast with little or no time to practice the skills in the form to be applied in classrooms					
52. Teachers are required to do too much, too soon with no follow-up support on returning to their classrooms					

Appendix (continued)

G. In this section choose one response only:

53. Circle *one response* to indicate the most frequent method utilized for teachers' workshops:

    A. The County Staff Development Department decides what is taught in teachers' Workshops

    B. School Administrators collaborate with teachers to decide what is taught at staff Development workshops

    C. Teachers in grade level meetings decide what is taught in staff development Workshops

    D. Teachers according to individual issues decide what staff development topics are Required

54. Circle *one response* to indicate the method of organizing workshops *that you think would be most effective in practice:*

    A. The County Staff Development Department decides what is taught in teachers' Workshops

    B. School Administrators collaborate with teachers to decide what is taught at staff Development workshops

    C. Teachers in grade level meetings decide what is taught in staff development workshops

    D. Teachers according to individual issues decide what staff development topics are required

Appendix (continued)

55. Check the *one delivery method* that is most often used at staff development workshops:

A The Presenter provides explanation (may use power-point, etc) with some question-answer at the end

B. The Presenter allows continuous dialogue throughout presentation

C. The presenter models the new strategy to demonstrate it

D. The presenter gets the teachers *to do* the strategy practically

E. The presenter gets the teachers *to do* the strategy practically and *to evaluate* effectiveness

H. Demographic Data

56. How many students are earning A grades in your class(es):

1. None ____ 4. Most ____
2. A few ____ 5. Nearly All ____
3. Some _____

57. How many students need to be sent to the office for discipline problems in your class(es)?

1. None ____ 4. Most (5-6) ____
4. A few (1 or 2) ____ 5. Nearly All ____
5. Some (3-4) _____

Appendix (continued)

58. Estimate the percentage of students on free and reduced lunch status in the class(es) you teach (Check one):

1. None ____
2. A few ____
3. Some _____
4. Most ____
5. Nearly All ____

Please provide your demographic data for statistical purposes only (Check one):

59. Gender: Female _____ Male _____

60. Experience:

1. ___ 1-2 Years
2. ___ 3-5 years
3. ___ 6-10 years
4. ___ 11-15 years
5. ___ 16 or more years

61. Please check the grade level you teach:

Grade 1 ____
Grade 2 ____
Grade 3 ____
Grade 4 ____
Grade 5 ____
Resource Teacher ____

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