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Research-Supported Professional Development Perceptions of K-12 Educators of Self-Determined Professional Development Needs

Robert T. Grosz

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RESEARCH-SUPPORTED PROFESSIONAL DEVELOPMENT:
PERCEPTIONS OF K-12 EDUCATORS OF SELF-DETERMINED PROFESSIONAL
DEVELOPMENT NEEDS

by

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This dissertation, submitted by Robert T. Grosz in partial fulfillment of the requirements for the Degree of Doctor of Education from the University of North Dakota, has been read by the Faculty Advisory Committee under whom the work has been done and is hereby approved.

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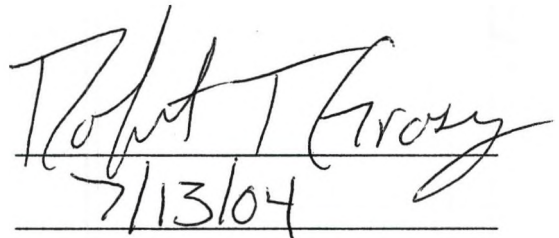
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Title   Research-supported Professional Development: Perceptions of K-12
                            Educators of Self-Determined Professional Development Needs

Department   Educational Leadership

Degree   Doctor of Education

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ABSTRACT

The purpose of this study was to investigate the degree of involvement of K-12 educators in a Minnesota district in research-supported professional development (RSPD), to determine the perceived needs for future professional development of the same K-12 educators, and to determine whether recent participation in RSPD activities, areas, and approaches impacted the K-12 educators perceived professional development needs and/or wants.

Multivariate Analysis of Variance (MANOVA) was conducted to determine what differences existed in the recent involvement in RSPD activities, areas, and approaches compared by the variables; gender, years of experience as a classroom teacher, current teaching level, and current education level and what differences existed in the desired involvement in RSPD activities, areas, and approaches compared by the same variables. The Pearson Correlation was used to determine the strength and direction of the relationship between involvement in current RSPD activities and the desire to be involved in other RSPD activities, between involvement in current RSPD areas and the desire to be involved in other RSPD areas, and between involvement in current RSPD approaches and the desire to be involved in other RSPD approaches.

The results suggested that for the K – 12 educators in the study gender influences current level and desired level of involvement in RSPD approaches; years of classroom experience influences involvement in current RSPD activities and approaches

and the desired involvement in RSPD activities, areas, and approaches; current teaching level influences involvement in current RSPD approaches and the desired involvement in RSPD activities, areas, and approaches; and current educational level does not influence the choice of or desired involvement in RSPD activities, areas, or approaches.

The results further suggested that for the K – 12 educators in the study, there is a negative correlation between current involvement in professional development activities and the desire to be involved in additional professional development activities. In addition the results suggested there is a positive correlation between involvement in RSPD areas and the desire to be involved in additional RSPD areas. Finally, the results suggested a positive correlation between involvement in professional development approaches and the desire to be involved in additional professional development approaches.

CHAPTER I

INTRODUCTION

There are numerous theories about what it takes to educate a child. Most of these

theories are linked to a dyad, the teacher and the child. When this is the case, according

to Alvarado (1998), "all roads lead to professional development" (p. 18). Scherer (2002)

wrote,

> Derisive stories about the worst professional development encountered are easy to
> come by in education circles. The day everybody was made to do the Macarena
> in between writing their school's mission statement or the afternoon spent
> coloring in a diagram of a brain to illustrate their personal characteristics are the
> kinds of silly activities that make teachers beg for less time mandated for
> development and more time for their real work of educating students (p. 5).

Ineffective professional development is easy to find across the United States.

Data-driven decision making and the 2001 Elementary and Secondary Education Act, No

Child Left Behind (NCLB), have caused school districts and professional educators to

look critically at the type of professional development activities offered to meet the

demands of a changing educational system. According to the United States Department

of Education website (n.d.), there are eight key elements to address when dealing with

professional development and NCLB. The key elements are as follows:

1. All activities referenced to student learning.
2. Schools use data to make decisions about the content and the type of
   activities that constitute professional development.
3. Professional development activities are based on research-validated practice.
4. Subject matter mastery for all teachers is a top priority.
5. There is a long-term plan that provides focused and on-going professional
   development with time well allocated.

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6. Professional development activities match the content being instructed.
7. All professional development activities are fully evaluated.
8. Professional development is aligned with state standards, assessment, and local curriculum (¶ 2-4).

Ineffective professional development will not be acceptable under these guidelines.

Wills (2002) stated, "Over the past 5-10 years, professional development has changed a lot. The standards movement has created a real need for teacher learning, so people are looking critically at the kinds of learning experiences we're providing for teachers" (p. 6).

Traditional professional development needs to change with the new demands placed on educational systems, districts, schools, and professional K-12 educators. Many K-12 educators would argue that traditional professional development has often not been meaningful to the educator personally or to the educational system. This being the case, according to Scherer (2002) "relevant professional development has never been more important" (p. 5).

Professional Development

In the next section the reader will get a snapshot of what the National Staff Development Council (NSDC) believes are the appropriate models for staff development. The NSDC is a non-profit association with over 10,000 members. According to the NSDC (2001) the organization is,

> deeply committed to ensuring success for all students through the application of high standards for educators' professional learning. The Council views high quality professional learning as essential in creating schools in which all students and staff members learn and perform at high levels (p. i).

The following are the belief statements of the NSDC (1999):

- Change creates opportunities for growth;

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- The primary purpose of staff development is school improvement as measured by success of every student;
- Staff development is fundamental to school improvement;
- All educators share the responsibility for both individual and organizational growth;
- Effective staff development is based on theory, research, and proven practice;
- Effective staff development honors differences in learners by using various approaches to learning;
- Staff development is responsible for organization development and individual development; and
- Staff development is critical for all those who affect student learning (p. 4).

These statements from the organization, whose mission is to ensure success for all students by advancing individual and organizational development, provide a sound definition of professional development. It is through professional development that educators can embed continuous improvement into their educational career.

According to James Stigler, in an interview conducted by Scott Willis and reported in *Educational Leadership*, professional development should include three important components that will allow teachers to learn from the activity. The first is that teachers need to learn how to analyze their professional practice. This analysis entails thinking about the relationship between teaching and learning in a cause-and-effect manner. This will allow a teacher to analyze a situation and create a hypothesis that links back to instruction (Willis, 2002).

The second component that needs to be included in sound professional development is the exposure to alternatives. In the interview with Willis (2002) Stigler stated, "We've learned from our TIMSS (Third International Mathematic and Science Study) video studies that there's less variation in U.S. teaching practices than you might expect, so if you want to find truly new ways of teaching, you have to go out and seek them" (p. 7).

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The ability to judge instructional practice or methodology and determine its appropriate use, depending on the situation, is the third component. This judgment is based on the analysis of alternative practices that have been acquired and their influence on teaching and learning in a cause-and-effect manner (Willis, 2002).

According to the NSDC (2001),

> Staff development is the means by which educators acquire or enhance the knowledge, skills, attitudes, and beliefs necessary to create high levels of learning for all students. For many educators, staff development has traditionally been synonymous with workshops, courses, and presentations by 'experts.' But today we know that professional learning can take many forms and draws on the perspectives, talents, and contributions of K-12 educators, higher education personnel, and individuals who serve in various other roles (p. 2).

According to Scherer (2002), "That traditional professional development has not always been meaning is an understatement. At the same time, relevant professional development has never been more important" (p.5).

Both the state of Minnesota and the federal government have indicated that professional development is important. According to the Minnesota State Legislature (2003) Minnesota statute 122A.61: Reserved Revenue for Staff Development states, "a district is required to reserve an amount equal to at least two percent of the basic revenue under section 126C.10, subdivision 2, for in-service education" (¶ 1). This law indicates Minnesota's commitment to professional development. As part of the No Child Left Behind Act the federal government has allocated dollars under Title II, Part A for teacher and principal training and recruiting. This large federal allocation indicates the federal governments' commitment to professional development. In addition, according to the Minnesota Department of Children Families and Learning (2003), Title II, Part A

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requires, "every district to conduct a needs assessment prior to making decisions on how to use the funds provided through this program" (p. 22).

Purpose of the Study

The purpose of this study was to investigate the degree of involvement of K-12 educators in a Minnesota district in research-supported professional development (RSPD), to determine the perceived needs for future professional development of the same K-12 educators, and to determine whether recent participation in RSPD activities, areas, and approaches impacted the K-12 educators perceived professional development needs and/or wants. The data collected by the district was necessary to provide the district with information to help identify future professional development activities and helped to provide a portion of the required needs assessment under NCLB. This study disaggregated data concerning the involvement, perceived needs, and the impact of recent participation by gender, years of teaching experience, and education levels in order to achieve its purposes.

The RSPD activities included in this study are: action research, case studies, coaching, curriculum development, examining student work, immersion, mentoring, portfolios, study groups, and workshops/conferences. The National Staff Development Council published the *Journal of Staff Development: Powerful Designs New Approaches Ignite Professional Learning* (Lynn & Sparks, 1999). The journal focused on professional development activities that had been found to be, according to the editors, "powerful designs that other schools and districts are using effectively" (p. 9). The editors declared, "this collection is not the final word, but it is a starting point for designs that hold promise for improving adult learning and, ultimately, improved student

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achievement" (p. 9). It was from these powerful designs that the RSPD activities were chosen for this study.

The RSPD areas included in the study are: in depth study in the subject area of the K-12 educators' main teaching assignment; state or district curriculum and standards; integration of educational technology in the grade or subject the K-12 educators taught; student performance assessment (e.g. methods of testing, applying results to modify instruction); classroom management, including student discipline; addressing the needs of students from diverse cultural backgrounds; addressing the needs of students with limited English proficiency; addressing the needs of students with disabilities; encouraging parent and community involvement; and new methods of teaching (e.g. cooperative learning, guided reading, six-trait writing). The RSPD areas were based on the major foci for professional development as defined in the Teacher Preparation and Professional Development: 2000 survey created by the National Center for Education Statistics (NCES). According to the U.S. Department of Education National Center of Educational Statistics (2001), the NCES is the primary federal entity for collecting, analyzing, and reporting data related to education in the United States and other nations. It fulfills a congressional mandate to collect, collate, analyze, and report full and complete statistics on the condition of education in the United States; conduct and publish reports and specialized analyses of the meaning and significance of such statistics; assist state and local education agencies in improving their statistical systems; and review and report on education activities in foreign countries.

The RSPD approaches included: common planning periods for team of teachers, networking with teachers outside the K-12 educators assigned school, regularly

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scheduled collaboration with other K-12 educators, and individual or collaborative research on a topic of interest to the K-12 educator. The RSPD approaches are based on the NCES activities related to teaching included in the Teacher Preparation and Professional Development: 2000 survey (U.S. Department of Education, National Center of Educational Statistics, 2001).

Understanding the degree of involvement in research-supported professional development (RSPD), the perceived professional development needs, and the impact recent involvement in RSPD has on the perceived needs and/or want of K-12 educators, provides the insight needed by professional development coordinators, teams, or individuals to conduct the essential learning opportunities that are needed by educators to continually improve in their profession. Furthermore, by understanding the disaggregated data at different genders, years of experience, teaching levels, and education level; professional development coordinators, principals, teams, or individuals can help to identify the professional development activities that meet the unique needs of a diverse group of educators.

Research Questions

1a. What was the actual recent involvement of the K-12 educators in Research Supported Professional Development (RSPD) activities, areas, and approaches?

1b. What was the desired involvement of the K-12 educators in RSPD activities, areas, and approaches?

2a. What differences existed in the recent involvement of K-12 educators in RSPD activities, areas, and approaches compared by gender, years of

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experience as a classroom teacher, current teaching level, and current

current education level?

2b.   What differences existed in the desired involvement of K-12 educators in

RSPD activities, areas, and approaches compared by gender, years of

experience as a classroom teacher, current teaching level, and current

education level?

3a.   What was the relationship between recent involvement in RSPD activities

and the desire to be involved in other RSPD activities?

3b.   What was the relationship between recent involvement in RSPD areas

and the desire to be involved in other RSPD areas?

3c.   What was the relationship between recent involvement in RSPD

approaches and the desire to be involved in other RSPD approaches?

Significance of the Study

In the past, professional development has been largely divorced from practice.

Many times it takes place outside of schools at a hotel or a university. It has been general

and generic because the people or companies providing the professional development

have created programs to work for all teachers, no matter what curriculum they are using

or no matter what set of standards they are utilizing. It has not been long-term or

sustained based on the aims and goals of a district, school, or individual (Willis, 2002).

The Minnesota district involved in this study has aligned its curriculum to the

Minnesota Academic Standards in the curricular areas of language arts and mathematics.

Other curricular areas are or are in the process of being aligned to national or locally

generated standards. The locally generated standards are created after a careful analysis

of educational research in the curricular area and an analysis of national or state standards. A clearly defined curriculum review cycle that includes: reviewing current practice in the curricular area (current scope and sequence, assessment plan, and curriculum guide), reviewing educational literature to determine what the research states about the curricular area, creating/modifying/adopting standards, creating a K-12 scope and sequence, creating a K-12 assessment plan, creating a K-12 curriculum guide, and the designing professional development activities to strengthen teacher skill, knowledge, and pedagogy and to increase student achievement, is utilized for this purpose. The data from this study could provide the district additional information to assist in the curriculum review cycle. In particular, it provides data for the design of the professional development activities.

The vision of the Minnesota district involved in this study is Educational Excellence for All. The mission of the studied district is to nurture and develop the full potential of all learners in an environment where lifelong learning is valued, educational excellence is expected, and improvement is continuous. The district has three aims. They are (a) High Academic Achievement, (b) Safe, Compassionate and Dignified Environment, and (c) Effective and Efficient Operations. The individual buildings in the district have developed goals that align with the district's aims, mission, and vision. The data from this study will provide the district and buildings additional information to further its continuous improvement process.

The National Staff Development Council (n.d. a) in its resolutions states that the council believes:

- High quality staff development is essential to school reform and that school systems have an obligation to ensure that employees are thoroughly prepared to successfully discharge their responsibilities (¶ 3).
- High quality staff development is essential for initiating and sustaining school reform (¶ 6).
- Successful school reform results when individual and organizational goals are aligned and coherent (¶ 9).
- Results driven, standards-based education requires results-driven, standards-based staff development for all employees who are responsible for student learning (¶ 12).
- Because staff development is an essential component of systemic educational reform, staff developers are obligated to determine its effects upon individual performance, organizations, and the improved learning of all students (¶ 15).

According to Zucker (2001), "the challenge for the education system – for principals, superintendents, mathematic supervisors, political leaders, voters, and others – is to make high-quality professional development a given that does not depend on chance, circumstance, or heroic efforts by teachers" (¶ 1). In order for professional development to be sustained over time; directly linked to a district, school, or individual's goals; be one of the factors to aid in school reform; and become results-based; additional research data is required. This study can provide needed information for the Minnesota District associated with the study and for other similar school districts to assist professional development coordinators, principals, teams, and individuals to create and conduct high-quality professional development.

Definitions

For the purpose of this study, the following terms were defined to explain their meaning in relation to the topic at hand:

Action Research: "Action research can be as simple as raising a question about some educational practice and collecting information to answer the question, or can be as

complicated as applying a t-test to determine whether or not post-test results from an experimental group are statistically significant" (Glanz, 1999, p. 22). "A more formal definition of action research is continual disciplined inquiry conducted to inform and improve practice as educators" (Calhoun, 2002, p.18).

Case Studies: "Case-based professional development involves using carefully chosen, real-world examples of teaching to serve as springboards for discussion among small groups of teachers" (Barnett, 1999, p. 26).

Coaching: "Coaching is teachers talking and acting in a purposeful way, with the goal of continuously improving their teaching practice. A coach is a critical listener/observer, who asks questions, makes observations and offers suggestions that help a teacher grow and reflect and produce different decisions" (Harwell-Kee, 1999, p. 28).

Curriculum Development: Educators take part in the research and development of curriculum to be utilized in the classroom.

Examining Student Work: Educators conduct structured conversations about student work and critically analyze the impact of teachers' actions. According to Mitchell (1999), these conversations are "about the assignments teachers give to students, the standards students must achieve, and student work (¶ 2).

Immersion: Educators become involved in activities such as jobs, internships, and specialized training – to gain first hand experience (Lappan, 1999).

Mentoring: Educators pair experienced teachers with teachers with less experience. Mentoring in general is when a veteran teacher provides information to a beginning teacher or newcomer to a district. (Harwell-Kee, 1999).

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National Staff Development Council (NSDC): "The National Staff Development Council (NSDC) is the largest non-profit professional association committed to ensuring success for all students through staff development and school improvement. The Council views high quality staff development programs as essential to creating schools in which all students and staff members are learners who continually improve their performance" (NSDC, n.d. b, ¶ 1-2).

No Child Left Behind (NCLB): The 2001 Reauthorization of the federal Elementary and Secondary Education Act.

Portfolios: Educators gather educational artifacts over time that become the basis for conversations, reflections, and possible evaluation. There are three common types of portfolios commonly used by educators. They are employment portfolios, assessment portfolios, and learning portfolios (Dietz, 1999).

Professional Development: Professional development is the term that educators use to describe the continuing education of teachers, administrators, and other school employees. According to Sparks (1994), "During the past 20 years, it has gone by many names – inservice education, staff development, professional development, and human resource development" (¶ 1).

Research-supported: Actions that have been reviewed in educational literature and have been shown to have a positive effect on student performance.

Research- supported Professional Development (RSPD) Activities: Professional development activities that include: action research, case studies, coaching, curriculum development, examining student work, immersion, mentoring, portfolios, study groups, and workshops/conferences (Lynn & Sparks, 1999).

Research-supported Professional Development (RSPD) Approaches: Professional development approaches that include: common planning periods for team of teachers, networking with teachers outside the K-12 educators' assigned school, regularly scheduled collaboration with other K-12 educators, and individual or collaborative research on a topic of interest to the K-12 educator (U.S. Department of Education, National Center of Educational Statistics, 2001).

Research-supported Professional Development (RSPD) Areas: Professional development areas that include: in-depth study in the subject area of the K-12 educators' main teaching assignment, state or district curriculum and standards, integration of educational technology in the grade or subject the K-12 educators taught, student performance assessment (e.g. methods of testing, applying results to modify instruction), classroom management, including student discipline, addressing the needs of students from diverse cultural backgrounds, addressing the needs of students with limited English proficiency, addressing the needs of students with disabilities, encouraging parent and community involvement, and new methods of teaching (e.g. cooperative learning, guided reading, six-trait writing) (U.S. Department of Education, National Center of Educational Statistics, 2001).

Study Groups: Wood and McQuarrie (1999) define teacher talk or study groups when, "Groups of teachers and/or administrators come together to learn more about a particular topic, such as discipline, cooperative learning, or curricular programs. The groups review and discuss the literature, visit model programs, and meet to discuss the potential of the practices or program for their school or classrooms" (p. 10-11).

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TIMSS: "The Trends in International Mathematics and Science Study (TIMSS, formerly known as the Third International Mathematics and Science Study) resulted from the American education community's need for reliable and timely data on the mathematics and science achievement of our students compared to that of students in other countries. TIMSS is the most comprehensive and rigorous assessment of its kind ever undertaken. Offered in 1995, 1999, and 2003, TIMSS provides trend data on students' mathematics and science achievement from an international perspective" (National Center for Educational Statistics, n.d., ¶ 1).

Years of Experience as a Classroom Teacher Categories: Based on data from the U.S. Department of Education, National Center for Educational Statistics (2001), Schools and Staffing Survey, Public Teacher Questionnaire, and Charter Teacher Questionnaire four categories of teacher experience are defined; less than three years, three years to nine years, ten to twenty years, and over twenty years of teaching experience.

Workshops/Conferences: Border (1996) defines a workshop as, "a short inservice attempt to introduce and explain a concept, and is characterized by the use of activities, audience participation, presenter feedback, and handouts on the topic" (¶ 5).

Assumptions

The basic assumptions of this study were as follows:

1. The educators understood the survey and were truthful in their responses.

2. The involvement in or desire to be involved in RSPD activities - action research, case studies, coaching, curriculum development, examining student work, immersion, mentoring, portfolios, study groups, and workshops/conferences – was measured accurately through the survey.

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3. The involvement in or desire to be involved in RSPD areas such as in-depth study in the subject area of the K-12 educators main teaching assignment, state or district curriculum and standards, integration of educational technology in the grade or subject the K-12 educators taught, student performance assessment (e.g. methods of testing, applying results to modify instruction), classroom management, including student discipline, addressing the needs of students from diverse cultural backgrounds, addressing the needs of students with limited English proficiency, addressing the needs of students with disabilities, encouraging parent and community involvement, new methods of teaching (e.g. cooperative learning, guided reading, six-trait writing) - was measured accurately through the survey.

4. The involvement in or desire to be involved in RSPD approaches such as common planning periods for team of teachers, networking with teachers outside the K-12 educators' assigned school, regularly scheduled collaboration with other K-12 educators, individual or collaborative research on a topic of interest to the K-12 educator - was measured accurately through the survey.

5. The impact of recent participation in RSPD activities impact K-12 educators' perceived professional development needs and/or wants were measured accurately through the survey.

6. Principals who administered the survey followed the survey procedures as prescribed by the assistant superintendent for curriculum and instruction of the district who created the instrument.

7. Participation in RSPD actually leads to improvement in student achievement.

8. Perceptions of teachers are grounded in and informed by the actual learning needs of students.

9. The instrument used in the study was valid.

Delimitations

For the purpose of this study, the professional teaching staff sample was limited to the professional teaching staff members who responded to the survey in the Minnesota school district on the day the survey was administered. No additional attempts were undertaken to survey the professional teaching staff members who were absent on the day the survey was issued. The involvement in or desire to be involved in RSPD activities, areas, and approaches was limited in this study to the questions on the professional development survey (see Appendix A).

Organization of the Study

Chapter I presented an introduction to the study including the need for the study, the research questions, the significance of the study, definitions of terms, assumptions and delimitations. Chapter II contains a review of relevant literature related to the history of professional development. This chapter also includes a review of literature related the major stages of a career as well as the definition of professional development, action research, case studies, coaching, curriculum development, examining student work, immersion, mentoring, portfolios, study groups, and workshops/conferences. Chapter III presents the methodology of the study. It includes a description of the research sample, a description of the survey instrument, and an explanation of data collection and analysis procedures. Chapter IV presents the results of the survey, analysis of the findings, and a

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discussion of data. Chapter V includes a summary, limitations, findings, discussions and conclusions, recommendations for the Minnesota district in the study, and recommendations for further research.

CHAPTER II

REVIEW OF LITERATURE

The purpose of this study was to investigate the degree of involvement of K-12 educators in research-supported professional development (RSPD), to determine the perceived needs for future professional development of the same K-12 educators, and to determine whether recent participation in RSPD activities, areas, and approaches impact the K-12 educators perceived professional development needs and/or wants. This chapter presents a select review of literature that relates to the history or evolution of professional development, major stages in a career of K – 12 educators, and research-supported professional development in the field of education. The section on the history or evolution of professional development presents how professional development has changed since the 1800s until the present. The research-supported professional development practices included in this review are action research, case studies, coaching, curriculum development, examining student work, immersion, mentoring, portfolios, study groups, and workshops/conferences.

History of Professional Development: 1800s to the 1960s

According to Grant, Young, and Montbriand (2001), "Since schools were first established in this country, one of their primary responsibilities has been to create literate citizens. However, the role of the teacher, the nature of literacy instruction, and the

character of professional development have changed a great deal since those early days"
(p. 8). The idea or concepts of professional development, sometimes called inservice
education has grown during the past century. School administrators have historically
acknowledged the fact that additional training was needed for their staff (Orlich, 1989).
The methods for planning and providing this additional training have changed
dramatically. Continuous improvement efforts and result-driven decision making have
been major factors in these changes (Sparks, 1994).

Teachers of the early 19th century were typically poorly educated and had only a
superficial grasp on the subject matter they were teaching. These teachers were generally
regarded as incapable of reflecting on and improving their own teaching (Neil, 1986).
According to Button and Provenzo (1989),

> With required formal learning reduced and entry into teaching easy, teacher's
> salaries would be low during the 1800s. With pupils coming from poor families
> more often then from middle-class ones, the status of pupils tended to reduce the
> status of teachers, who themselves most often came from families of limited
> means (p. 97).

The typical American common school teacher in the 1800s was someone who had
merely graduated from an elementary school (Neil, 1986). Many of the educators in the
1800s were not prepared to be teachers. They were individuals who were hired due to the
fact that influxes of students were entering the classroom. The rise in the number of
students was due to the commitment to universal elementary education (Orlich, 1989).

During the 1800s, professional development or inservice when it was offered was
mandatory for teachers (Neil, 1896). The professional development was comprised of
mandatory teacher's institutes. Many times the institutes took the form of conventions
that lasted for one to three days or were evening work sessions. Speakers were invited to

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the institutes to instruct on topics that directly related to specific subject matter concerns or provided inspirational topics for the teachers. This type of professional development served to help fill the pressing need for upgrading the teacher's skills. It was a way to help remedy teacher deficiencies and improve a teacher's academic competency. (Orlich, 1989).

During the colonial period in American history, there were very few requirements to be a teacher. At first the only requirement was the willingness to work in the occupation, but this gradually changed. According to Lemlech and Marks (1976),

> The free public school movement engendered the need for more teachers, and educational leaders responded to the need, motivated to better prepare teachers for teaching, Samuel R. Hall in 1823 established a private school in Concord, Vermont, for the preparation of teachers, based upon a common school education (p. 14).

Henry Barnard and Horace Mann were instrumental in increasing the number of normal schools in the United States during the second half of the 19th century. Since the normal schools only prepared elementary school teachers, a strong emphasis was placed on child development in them. The preparation of secondary school teachers was completed in liberal arts colleges. This preparation, demanded a larger academic component than did the preparation of elementary teachers at the normal schools. According to Lemlech and Marks (1976),

> During the era of industrialization and urbanization, increasing number of youth enrolled in high school, and the demand for more thoroughly prepared teachers grew. Frequently normal school graduates were deemed unsatisfactory for secondary school assignments. Gradually, in the last quarter of the 19th century, departments of education were created at universities to begin to graduate high school teachers with sufficient depth of academic training in their content fields (p. 27).

By the turn of the century most state institutions for teacher preparation had expanded the preparatory period for elementary teachers to four years beyond secondary education. The state institutions were training substantial numbers of the nation's public-school teachers.

As teaching became more of a profession, and with schools being created to train teachers, professional development began to change around the turn of the century. During the early 1900s to the 1940s the professional development teachers received was designed to correct theoretical deficiencies of the teacher's personal background. The professional development was designed to fill the gaps left by the teacher education programs. This was typically done at summer sessions at normal schools (Grant, Young, & Montbriand, 2001; Orlich, 1989).

Neil (1983) writes,

By the 1920's admission requirements in Normal schools had risen, and by 1930 a high school certificate was required to enter teacher training college. From the mid-twenties until the 1940's, this growing professionalism, along with the burgeoning of psychological theories encouraged inservice to be conceived as on on-going research experiment.

Also during this period (1920's – 1940's) teacher associations more frequently began to conduct intensive studies. Through the Normals, teacher's colleges and new departments of education within universities, fresh inservice curricula were made available. Along with methods in special subjects, curriculum organization, training or principals and administrators, supervision, philosophy and psychology were offered (p. 3).

In 1957 when the Russians launched the satellite Sputnik, the first wave of school reform of the 20th century began. Policy makers demanded higher emphasis in academic content, particularly math, science, and English (Grant, Young, & Montbriand, 2001). According to Button and Provenzo (1989), "When Russia launched Sputnik II, which weighed half a ton and carried a dog as a passenger, President Eisenhower appointed an

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adviser on science, the first ever. Every resource, technical, financial, and educational, was to be employed to overtake the Russian lead in space" (p.311).

The Academy for Educational Development (1985) stated,

Largely in reaction to Sputnik and the public's worry that the United States might be lagging behind the Soviet Union in the teaching of mathematics and science, Congress passed the National Defense Education Act. Its express purpose was to stimulate improvements in curriculum and in the preparation of teachers, especially in science, mathematics, and foreign languages.

Around the same time, the Fund for the Advancement of Education, an independent organization established by the Ford Foundation in 1951, was developing ways to deal simultaneously with the increase in students and with the need to maintain academic quality in schools.

The fund stimulated efforts to improve curriculum development, particularly in mathematics and sciences, relying heavily upon university experts in such disciplines as biology, physics, and the social sciences (p. 1-2).

A majority of the teacher inservice during the 1950s was in the form of workshops. The workshops were designed so that teachers could work with specialists, curriculum coordinators or a resource person stressing high academic achievement in the core areas. This was soon expended to include inter-agency groups working together. An example of this would be university professors working with teachers to improve student performance. In addition, new requirements for the academic status of teachers also grew the importance of inservice for teachers (Neil, 1983).

The 1960s brought about many social changes to the country and to the classroom. President Lyndon Johnson's War on Poverty and the Elementary and Secondary Education Act had tremendous impact on education. The War on Poverty's goal was to provide equal education for disadvantaged or poor children. The Elementary and Secondary Education Act provided states and school districts additional funding to attract individuals to the teaching professions. This was particularly true in high-poverty

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areas. The Title 1, part of the Elementary and Secondary Education Act, provided compensatory funding for high-poverty school districts to create additional programming. Title 1 primarily took the form of reading initiatives (Grant, Young, & Montbriand, 2001).

Orlich (1989) writes, "The period after World War II (1945 – 1960) witnessed subtle changes in inservice education: the programs became oriented toward personal and curriculum development rather than simple remediation" (p. 3). These subtle changes can be linked to a change in the emphasis from classroom practice to large scale programming. These changes impacted the quantity and quality of professional development in the 1960s.

The Academy for Educational Development (1985) stated,

Support for innovation continued (in the 1960's) ... A central objective was to improve the quality of contact between the student and the teacher. That became the focus of planning and action. Nevertheless, although the planners of the time took into account the increasing diversity of students – in academic ability, motivation, and preparation – they had not yet discovered how to meet students' academic and other problems.
   Furthermore, the methods used to introduce change were relatively simplistic – like changing the parts of an engine – and insufficient attention was paid to the emerging view of parents and to the leaders representing a broad spectrum of communities served by the public schools, particularly urban areas (p.2).

Changes over time in the quality of teacher preparation, a refined focus on academics, and social changes brought about several changes in professional development from the early 1800s to the 1960s. This momentum of change continued from the 1970s to the present.

History of Professional Development: 1970s to Present

Many events of the 1970s to the present have had an impact on professional development. During this time many reports have been issued by various business groups, commissions, and governmental bodies that have emphasized how important it is for staff development to play a central role in school reform. However, during this same time period, the field of professional development has changed. Reformers have realized that professional development must be considerably different than it has been in the past in order to assist in school reform (Sparks & Hirsh, 1997).

The decades of the 70s, 80s, and the 90s were marked by distinct educational trends. During the 70s, new instructional practices based on the work of B.F. Skinner began to be infused into public education. These practices divided learning into discrete skills and provided students with extensive practice and immediate feedback. The 1980s brought on many reform based studies and programs that were focused on three areas: accountability, quality instruction, and leadership. According to Grant, Young, and Montbriand (2001),

> Much of the attention to teaching with the reform movements of the 1980's revolved around Madeline Hunter's curriculum planning model. This model involved a series of steps thought to be necessary for effective teaching. At the same time as districts were attempting to mold instruction to the Hunter Model, efforts were underway to begin restructuring the highly hierarchical, traditional school administration into flatter, more participative type of governance (p. 12).

The demand for accountability continued into the 90s. This brought about policies that increased public attention on teacher qualifications and certifications. In addition, this demand for accountability led to most states initiating standards to describe what a competent learner must know or achieve in all subject areas. Grant, Young, and

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Montbriand (2001) state, "today, educational reform is supported by a series of well-researched and documented programs and reports to facilitate the enhancement of teacher capacity and expertise" (p. 13).

According to Sparks (1994), professional development has gone by many names in the past. It has been called inservice education, staff development, professional development, and human resource development. What ever it has been called, Sparks (1994) writes, "it too often was essentially the same thing – educators (usually teachers) sitting relatively passively while an 'expert' 'exposed' them to new ideas or 'trained' them in new practices" (¶ 1). This type of training was typically evaluated or the success of the training was determined by the participant's satisfaction and how useful the participants deemed it to be for their work. This sit and receive type of training is being changed by the irresistible forces that are at work in the field of education. Sparks (1994) states, "History teaches us the power of transforming ideas, and alteration in world view so profound that all that follows is charged forever. Such a paradigm shift is now rapidly transforming the discipline of staff development" (¶ 2).

Abdal-Haqq (1989) in the article *The Influence of Reform on Inservice Teacher Education* and Sparks and Hirsh (1997) in their book *A New Vision for Staff Development* articulate emerging trends or major shifts in professional development. They are:

1. A shift from individual development to individual development and organization development.

2. A shift from fragmented, piecemeal improvement efforts to staff development driven by a clear, coherent strategic plan for the school district, each school, and the departments that serve schools.

3. A shift from training conducted away from the job as the primary delivery system for staff development to multiple forms of job-embedded learning.

4. A shift from an orientation toward the transmission of knowledge and skills to teachers by "experts" to the study by teachers of the teaching and learning process. Inservice programs are preparing teachers to examine and assess their own practice, to become inquiring, reflective practitioners.

5. A shift from a focus on generic instructional skills to a combination of generic and content-specific skills.

6. A shift to inservice programs that emphasize collegiality.

The first shift recognized by Sparks and Hirsh (1997) is a shift from individual development to individual development and organization development. They write, "An important lesson from the past few years, has been that improvements in individual performance alone are insufficient to produce the results we desire. It is now clear that success for all students depends upon both the learning of individual school employees and improvement in the capacity of the organization to solve problems and renew itself" (p. 12).

For professional development to reach its full potential of professional learning, it needs to be designed to incorporate a system wide approach that includes initial training with on-going, in-depth, long-term focus on learning. It needs to build on teachers' knowledge base and skills, while at the same time include professional development

activities that assist in developing attitudes, aspirations, and behaviors that are consistent within the educational system or organization (Killion, 2002).

The second shift is from fragmented, piecemeal improvement efforts to staff development driven by a clear, coherent strategic plan for the school district, each school, and the departments that serve schools (Sparks & Hirsh, 1997). Abdal-Haqq (1989) recognized a similar shift to inservice programs that are research based, reflecting a significant reform trend that roots school improvement and inservice programs and that prepare teachers to participate in decision making on varied school issues. Sparks and Hirsh (1997) write,

> School improvement too often has been based on fad rather than a clear, compelling vision of the school system's future. This, in turn, has led to one-shot staff development workshops with no thought given to follow-up or how a technique fits in with those that were taught in previous years. Clear, compelling mission statements and measurable objectives expressed in terms of student outcomes guide the type of staff development activities that would best serve district and school goals (p.13).

A majority of school reform or school restructuring efforts have indicated that involving teachers and staff in important school decisions is an element needed for success. According to Murphy (2001), "Under girding this are theories that (1) school decisions will have greater support if more staff are involved in those decisions, and (2) decisions will be more effective if they tap into teacher and staff expertise" (p. 3).

Within the past years there has been a shift from the deficit model for professional development, the model that emphasized remediation, to a model that emphasizes professional growth for educators. The nature of adult learning and developmental stages is the base for this model (Abdal-Haqq, 1989).

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Traditionally structured schools are perceived to underutilize experienced teachers. Partial blame can be assigned to the 'industrial/hierarchical management philosophy in education. Within such a framework, teachers are not typically partners in decision making about non-instructional aspects of school life. Inservice efforts to change this hierarchical structure are underway... To acquire professional status teachers must have the professional autonomy, discretion, and authority characteristic of other professions; including the right to make key decisions about the services they render (Abdal-Haqq, 1989, p. 3).

To assist in creating higher academic achievement for students, professional development needs to be included in a system of continuous improvement. The continuous improvement efforts need to include rigorous content standards, an assessment program that provides the system information on how students and the system are performing, and leadership who advocates for high quality professional development for the organization (Killion, 2002).

The third shift recognized by Sparks and Hirsh (1997) is training conducted away from the job as the primary delivery system for staff development to multiple forms of job-embedded learning. Wood and McQuarrie (1999) state,

One of the most promising new approaches to professional growth in education is job-embedded learning, learning that occurs as teachers and administrators engage in their daily work activities. Job-embedded learning is learning by doing, reflecting on the experience, and then generating and sharing new insights and learning with oneself and others. Such things as study groups, action research, mentoring, and coaching have frequently been identified as examples of job-embedded learning. However, almost any interaction between two or more educators provides an opportunity. Both formal activities designed to promote job-embedded learning and the formal and informal interactions within a school can be employed to promote important professional learning (p. 1).

There is an appeal and benefit from outside professional development such as workshops and conferences. This type of professional development does supply choice about the programs an individual selects and does allow an individual to pursue an area

of interest. Although, individually guided professional development, that is not job-embedded may weaken and fragment the learning capacity of the faculty (Killion, 2002).

Job-embedded professional development guarantees that all staff have the skills and knowledge that are needed to meet their responsibility to meet high academic standards, to meet the diverse learning need of students, and to improve student achievement. In the past, training alone was equated with professional development. Today professional development is beginning to more closely relate to the real work of teachers. It is becoming job-embedded which promotes higher levels of thinking and learning for both the teacher and the students (Killion, 2002).

The fourth shift is from an orientation toward the transmission of knowledge and skills to teachers by "experts" to the study by teachers of the teaching and learning process (Sparks & Hirsh, 1997). Abdal-Haqq (1989) recognized a similar shift. This is a shift to inservice programs that prepare teachers to examine and assess their own practice, to become inquiring, and become reflective practitioners.

According to the National Staff Development Council (2001) in its *Standards for Staff Development*,

> Staff development that has as its goal high levels of learning for all students, teachers, and administrators requires a form of professional learning that is quite different from the workshop-driven approach. The most powerful forms of staff development occur in ongoing teams that meet on a regular basis, preferably several times a week, for the purposes of learning, joint lesson planning, and problem solving (p. 1).

To develop their own expertise, educators need to spend an increasingly larger portion of their work day in activities to examine their own practice and reflect on the profession of education. By engaging in action research, study groups, collaboration, and

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joint planning of lessons; teachers refine their instructional knowledge and skills. This

leads to less dependence on external experts as the only source for knowledge and

facilitates teacher-to-teacher learning and a sharing of individual expertise. This in turn

has the potential to help improve student performance (Sparks & Hirsh, 1997; Killion,

2002).

The fifth shift recognized by Sparks and Hirsh (1997) is from a focus on generic

instructional skills to a combination of generic and content-specific skills. Much of the

professional development in the past has focused on the instructional process or

management strategies that have been absent of content. This type of professional

development has had minimal impact of improving student learning (Wenglinski, 2000).

This has led to a shift in professional development that provides educators content-

specific skills. There are three types of knowledge that teachers need to know. They are

knowledge about their content, knowledge about pedagogical strategies, and knowledge

about content-specific pedagogical processes. By shifting the focus of professional

development to the content-specific areas that students are expected to learn, it modifies

the nature of traditional staff development. A teacher's knowledge of content-specific

skills and areas is one of the keys to student success (Killion, 2002).

According to Killion (2002),

More than ever it is critical for teachers to sharpen their content knowledge and
content-specific pedagogy. Unfortunately, the kind of professional learning
available to most school faculty has failed to meet their expectations of deepening
their content knowledge and expanding their techniques for teaching. Certainly
one of teachers' biggest complaints about staff development is its lack of
relevance to academic disciplines. Generic teaching strategies, while helpful to
know, are not a useful staff development focus for educators because these
strategies are often not aligned with the curriculum teachers are responsible for

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teaching, nor do teachers have time to plan how to integrate them into their instructional repertoire (p. 15).

Sparks and Hirsh (1997) write, "Recent studies have revealed the importance of teachers possessing a deeper understanding of both their academic disciplines and of specific pedagogical approaches tailored to those areas" (p. 15).

The final shift identified is a shift to inservice programs that emphasize collegiality (Abdal-Haqq, 1989). Teacher isolation is a major deterrent to school reform and purposeful change. The structure of the school day, limited time for duties other than instructional duties, and the tradition of top-down decision making have contributed to the conditions that make it difficult for teacher collaboration (Abdal-Haqq, 1989). According to Kruse (1999), "Teachers everywhere suffer from professional isolation (p. 14). Murphy (2001) suggests that school and district leaders need to restructure time for teachers and other professional educators so that collegiality and collaboration can take place. The restructured time will assist staff in feeling comfortable practicing collaborative skills that lead to collegiality. Garmstom (1997) stated,

> Collaboration means working together to solve problems, invent, create, build models, and produce results. Why is collaboration important? Adults learn more when they collaborate, work harder, support one another emotionally, and commit to cumulative efforts and effects (¶ 7).
> Collaboration moves us from isolation to integration, making decisions by preferences to making decisions by principles, from focusing on episodic student benefits to cumulative effects (¶ 12).

According to Willis (2002), "Today, people believe that professional development should be targeted and directly related to teachers' practice. It should be site based and long term. It should be ongoing - part of a teacher's workweek, not something that's tacked on" (p. 6). The study of the history of professional development indicates some of

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the changes that Willis identified. From inservice training that was designed to fill the gaps of teachers in the 1800s who had little formal education to become a teacher to job-embedded professional development that is based on continuous improvement and increasing student performance; professional development has evolved to meet the challenges and demands of today's educational system.

Major Stages of a Career

Adult development and career development literature explains theories that acknowledge differences among professional educators. The review of literature indicates that professional educators have different knowledge, skills, behaviors, and attitudes during different periods of their careers. This is important to take into consideration as professional development plans are designed for districts and buildings. By utilizing the knowledge of career stages and their impact on teachers' behaviors and attitudes, professional development plans can be designed to assist in reaching the district or building's vision, mission, aims, and goals while honoring the educators' attitudes and beliefs during different periods of their careers (Burden, 1982).

According to Lynn (n.d.), a series of reports on educational quality in the United States has brought to the forefront the need to attract new highly capable individuals into the teaching profession. The teacher is viewed in these reports as one of the most important components for educational excellence and student achievement. From these reports, numerous recommendations have emerged to try to make teaching more rewarding. Many of the reports and recommendations are based on the idea that there are differences among teachers. In particular, these reports recognize differences and changes that take place during their careers.

Lynn (n.d.) states,

Later models have attempted to incorporate the career stages as well as principles of adult growth and development. The literature suggests that the characteristics of teachers that appear to change are in the nature of their types of concerns, instructional behaviors, understanding of children, awareness and understanding of the school and teaching environment, and their perceptions of themselves, their work, and their profession. Implied within the literature is the idea that as teacher characteristics change, their needs with regard to professional activities, relationships, and interests will change accordingly (¶ 2).

Steffy and Wolf (n.d.) report that classroom teachers pass through six different

phases in their educational careers. The stages are novice, apprentice, professional,

expert, distinguished, and retiree. Steffy and Wolf (n.d.) define the phases as follows:

1. Novice Teacher: The novice phase begins when preservice students first encounter practicum experiences and continues through student teaching and the intern experience. Novice teachers begin to acquire the skills necessary to function effectively in the classroom (¶ 10).
2. Apprentice Teacher: The apprentice phase begins for most teachers during the student teaching experience when they are given responsibility for planning and delivering instruction. This phase typically continues through the first year of induction and often into the second and third years of teaching (¶ 12).
3. Professional Teacher: The professional phase emerges as teachers grow in their self-confidence as educators. Professional teachers most frequently seek help and assistance from other teachers at this phase. They actively participate in a collegial professional network and use this network for support and guidance (¶ 15).
4. Expert Teacher: The expert phase symbolizes achievement of the high standards set by the National Commission on Teaching and America's Future. Even if they do not formally seek it, these teachers meet the expectations required for national certification. Expert teachers are always evolving, growing, and changing; they are committed to the newest ideas in the profession (¶ 17).
5. Distinguished Teacher: The distinguished phase of the lifecycle of a teacher is reserved for those teachers who are truly gifted in their field. Distinguished teachers exceed everyone's definition of exemplary teaching (¶ 18).
6. Retiree: Many career professionals choose to honor their lifelong commitment to students by continuing to serve actively in a variety of alternative roles. Some move into administrative duties, while other pursue careers in higher education (¶ 19).

Diaz-Maggioli (n.d.) stated that teachers progress through their careers by solving various crises and by resolving the problems that they face from their daily life. This leads teachers to progress through five phases during their careers. The five phases or cycles are: exploration and stabilization, commitment, diversification and crisis, serenity or distancing, and conservatism or regret. Diaz-Maggioli (n.d.) defines the cycles as follows:

1. Exploration and stabilization: The first phase teachers go through upon entering the profession is exploration and stabilization. The theoretical knowledge gained during teacher education as well as more informal knowledge gained through the apprenticeship of observation is confronted with the reality of the classroom. Professionals at this stage seek balance and stability and tend to develop resources for teaching in order to confront the multitude of problems arising from interaction with students, colleagues, administrators, and the wider school community. Typical teacher thinking at this stage focuses mostly on getting the teaching part right and sometimes overlooks student learning (¶ 10).

2. Commitment: Once they know what to expect from the school environment, teachers begin to focus on improving student learning. The crisis to be resolved at this stage is providing quality teaching that will result in quality learning (¶ 11).

3. Diversification and crisis: During the third phase, teachers tend to question their role. It is at this stage when most teachers begin considering career moves, for example, moving into administration or possibly leaving teaching altogether. The crisis at this stage is an identity crisis. Teachers ask themselves whether they want to keep doing what they are doing for the rest of their lives. Hence, teacher support seems to be particularly important at this stage (¶ 12).

4. Serenity or distancing: The fourth career stage may come in one of two forms. If teachers are satisfied with their career choice, they may become settled in the position of their choice and will generally find renewed energy to pursue even better student learning. However, if for any reason teachers fail to fulfill their dream, a distancing may occur. Professionals who distance themselves from teaching are likely to comply with school regulations, but will not really pursue improvement in their teaching. These teachers need incentives to help them find new meaning in what they do (¶ 13).

5. Conservatism or regret: Finally, and towards retirement, one of two crises may happen. Some teachers become extremely conservative in their ways, thus perpetuating a model of teaching that is comfortable for them but not necessarily effective for student learning. Other teachers regret the fact that

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they will have to retire. This kind of teacher still feels the joy of teaching and can be a powerful motivator within the educational community (¶ 14).

Fessler (1985) utilized educational literature on career stages as well as the educational literature on adult growth and development and devised the Teacher Career Cycle Model. The Teacher Career Cycle Model includes eight states; preservice, induction, competency building, enthusiastic and growing, career frustration, stable but stagnant, career wind down, and career exit. A teacher's movement through this cycle is fluid and dynamic not in a linear mode. A teacher may be in one phase of the cycle and then move out, but for some reason at a later date, move back into the original phase.

According to Lynn (n.d.),

At first glance it does appear that the Model represents a linear process, with an individual entering at the preservice phase and progressing through each phase to the career exit period of time. The significance of the Teacher Career Cycle Model lies in the implication that teachers move in and out of career stages in response to personal and organizational environmental conditions. As a result, movement in and between stages is dynamic and flexible versus static and linear and teachers do not necessarily circulate through all the stages. The personal and organizational environment of the teacher includes a number of interactive yet mutually identifiable facets. Variables from one's personal environment that impact the career cycle include family support systems, positive critical incidents, crises, individual dispositions, and the developmental stages experienced. Variables from the organizational environment of schools and school systems include school regulations, the management style of administrators and relationships with colleagues, the atmosphere of public trust present in the community and the expectations from that community, the leadership and support of professional organizations, and the union influence present in the system (¶ 4).

The National Staff Development Council (NSDC) (n.d. c) standards state that professional development should improve the learning of all students and apply knowledge about human learning and change. On their website, the Council states that recognition of life stage or career stage differences is one of the three dimensions that

will impact the implementation of these standards and impact professional development. The three dimensions are: learning styles, feeling tone, and life/career stages.

The NSDC comments that life stages or career stages may affect a teacher's availability and interest in additional work during different phases of their work career. Although this may be true, career stages should not alter the expectations for performance and high academic achievement. According to the NSCD (n.d. c), "Recognition of life stage differences may also help staff development leaders in tapping educators' strengths and talents, such as asking skillful veteran teachers to serve as mentors or coaches for their peers" (¶ 6).

Steffy and Wolf (n.d.), Diaz-Maggioli (n.d.), and Fessler (1985) all recognize a common stage for preservice, induction, and novice teachers. There are common characteristics in their descriptions. However, the remainder of the stages do not appear to follow a linear pattern of development for teachers based on their careers and factors outside of education that influence their career stage. By understanding the different career stages that K -12 educators move in and out of, professional development planners can utilize the data to best develop professional development plans that center on student achievement and staff growth while addressing the unique needs of K-12 educators during different phases of their careers.

Research-Supported Professional Development in the Field of Education

During the last decade, educational literature has built a convincing argument that quality professional development can be linked to increased student performance (Killion, 2002). Although, according to Díaz-Maggioli (n.d.), "the teaching profession has witnessed a multitude of approaches to teacher development, but few have yielded

the expected results, and even fewer have managed to survive the initial enthusiasm for the innovation" (¶ 3). To be effective, to increase student performance and facilitate staff growth, professional development must make connections between subject matter and pedagogy. It should expand a teacher's repertoire of research-based instructional practices and assessment skills (Sparks & Hirsh, n.d.). Professional development needs to be based on research that supports both teacher development and increased student performance.

Mizell (2002), when discussing professional development and educators, stated,

Many teachers ..., particularly those with high proportions of low-performing students, do not believe their students can perform at significantly higher levels. Aside from whatever assumptions teachers make about their students' abilities because of family background, economic status, race, culture, or language, many teachers do not expect high performance from their students because they do not expect it from themselves. They have lost confidence that they can make a difference in the performance and lives of their students (p. 34).

High quality professional development can increase educators' self-efficacy and in the long run improve academic performance. As teachers experience success with new skills they start to believe that their students can do the same. As teachers raise their expectations for themselves, they raise their expectations for their students (Mizell, 2002).

The National Staff Development Council (NSDC) in its summer 1999 *Journal of Staff Development* compiled and described powerful designs that hold promise for improving adult learning, and ultimately, improved student achievement (NSDC, 1999). The following review of literature expands upon the work of the NSDC to further define research-supported professional development in the field of education. These practices include: action research, case studies, coaching, curriculum development, examining

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student work, immersion, mentoring, portfolios, study groups, and workshops/conferences. This is not an all inclusive list of professional development activities. The review of literature was limited to the work completed by the NSCD and the research-supported professional development activities that were included in the survey utilized in the study. Additional activities such as on-line learning, individual reading of professional journals or literature, and graduate study at the college or university level were not reviewed.

Action Research

As a professional development practice, action research is a research-supported strategy utilized to learn more about teaching and learning. Educators determine what questions are vital to explore to help them gain insight into their teaching practices and more information about their classrooms. Although the inquiry process is structured, it is not as formal as traditional educational research. It does, however, provide teachers with valuable information about how to improve practice (National Staff Development Council, n.d. d).

Wood and McQuarrie (1999) state,

> Action research involves educators in the process of raising questions about how to improve practice, studying the literature and research related to their questions, and then selecting an approach or approaches that might result in improving current practice. This is followed by developing a plan to implement the most promising approach, and collecting data to assess its effectiveness in the school or classroom. The field test is then conducted, data collected and analyzed, and then shared and discussed by those in the action research group (p. 11).

Professional educators typically seek to understand and then act on the best information that they have available to them. According to Calhoun (2002), this also describes action research. Action research provides teachers, principals, and district

employees the opportunity to test ways to potentially improve their profession. The process itself allows them to problem solve on issues that directly affect them. By carefully collecting data to diagnose a problem, search for solutions to the problem, and then implementing the solutions followed by an evaluation on its effectiveness; educators can be actively involved in their professional development. This also allows them to model this behavior for their students. Calhoun states, "a more formal definition of action research is continual disciplined inquiry conducted to inform and improve practice as educators" (p.18).

Glanz (1999) suggests action research can be as simple as raising questions about educational issues or practice and then collecting information to answer the questions. It can be as complicated as applying statistical tests to determine if the results from a study group are or are not statistically significant. When describing the steps involved in action research, Glanz (1999) writes that there are four basic steps in action research

1. Selecting a Focus. Know what you want to investigate, develop some questions about the area you've chosen, and establish a plan to answer these questions.
2. Collecting Data. You're ready to gather information to answer your research questions.
3. Analyzing and Interpreting Data: The purpose is threefold: 1. to describe or summarize data clearly, 2. to search for consistent patterns or themes among the data, and 3. to enable us to answer our research questions and/or prove hypotheses.
4. Taking Action: Three possibilities exist: 1. continue the program as originally established, 2. disband the program, or 3. modify the program (p. 22-23).

Teachers who are involved in action research become more reflective learners. They begin to think differently about themselves, their work, and their school. A majority of the teachers begin to see the worth in their efforts and how it will impact their

students and other teachers and students in the field of education (Senese, 2002).

Calhoun (2002) states,

> Action research asks educators to study their practice and its context, explore the research base for ideas, compare what they find to their current practice, participate in training to support needed changes, and study the effects on themselves and their students and colleagues. Action research can change the social system in schools and other education organizations so that continual formal learning is both expected and supported. It can replace superficial coverage with depth of knowledge. And it can generate data to measure the effects of various programs and methods on student and staff learning (p. 18).

Action research is conducted by the practitioner. This provides a way for teachers to specifically choose topics or issues of interest or concern to their classroom and to incorporate the results into their teaching. The process begins with teachers posing questions and aims to influence education practice, it affords the teacher the opportunity to have a greater responsibility for creating and directing their own professional development. Action research is designed to begin with a practical problem and then to plan and carry out a systematic approach to gather and analyze data. It is carried out by the person most likely to be interested and affected by the findings (Sardo-Brown, 1995).

Case Studies

Case studies use carefully chosen, real world examples of teaching which serve as springboards for discussion among small groups of teachers. Through problems presented in the case, teachers have opportunities to engage in careful reasoning and to make informed judgments on how the cases could be solved. Cases can help teachers discover ambiguity, conflict and complexity within a deceptively simple looking teaching situation. According to Clarke and Hollingsworth (2000),

> Case studies have long been a tool for learning in such professions as law, medicine, or social work. Yet teaching has only recently adopted the strategy of

using cases for professional development. Cases — candid, dramatic, accessible representations of teaching events or series of events — offer identifiable benefits in teacher professional development (¶ 1).

One virtue of a case discussion is that the situation being discussed is held in common by the group. While it's common in professional development to have teachers share good practices and reflect on their own classroom experiences, the discussion then is colored by one teacher's ownership of the recounted incident and constrained by the group's sensitivity to the personal nature of the accounts. When practitioners reflect on a case, either in text form or on video, the resulting discussion is grounded in a shared familiarity with a particular incident in a particular educational setting. While each teacher will interpret the case in his or her own terms and focus on different aspects of the case, the case itself offers a common reference point and a shared experience (¶ 4).

Loucks-Horsley in an interview with Sparks (1999 a), states that cases are a way to present a student learning problem or descriptions of teaching and learning processes that are specifically written for teachers. A facilitator uses questions to guide discussion around the case to help the group gain a deeper understanding of the content as well as new teaching methods. Written narratives may be used for cases as well as video reproductions of educational situations.

According to Barnett (1999), cased-based professional development begins with carefully chosen real-world experiences of teaching and learning to begin discussions among a group of professional educators. This allows teachers to engage in careful reasoning and to make judgments about what they have read or viewed. Cases can also assist teachers in looking at a situation that appears to be simple and delve into the components of a situation to discover its complexities. This allows teachers to critically analyze and reflect on the case.

Clarke and Hollingsworth (2000) write,

Research shows that teachers with extended experience in case discussion appear to move toward a more student centered approach to their practice despite the lack of prescription offered by the case methods approach. Teachers appear to learn to

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adapt and choose materials and development most commonly to demonstrate "principles of teaching" or "models of practice" intended for implementation rather than interpretation and reflection. With video, teachers frequently interpret tapes of classroom practice as exemplary, regardless of the professional developer's intentions. Exemplary models in either context encourage mimicry rather than professional reflection. If video cases are to achieve the power of narrative cases to stimulate discussion and productive teacher reflection, then the discussion of such cases must be carefully framed, methods that reveal student thinking, and anticipate and assume rationality in students' misunderstandings (¶ 6).

Cases as a teaching/learning tool, challenge participants to analyze, critique, make judgments, speculate and express reasoned opinions. Cases can be short for brief classroom discussions, or long and elaborate for school or district discussions. Cases are important for bringing real world problems into a classroom, building, or district. They ensure active participation and may lead to innovative solutions to problems.

Coaching

According to Galm and Perry (2004), one of the most powerful types of professional development is coaching. It allows site-based professional developers to devote time and expertise to work with individual teachers in their classrooms on a regular basis. Harwell-Kee (1999) states,

> Coaching provides a model of respectful collegial reflection about instructional decisions. A coach is a critical listener/observer, who asks questions, makes observations and offers suggestions that help a teacher grow and reflect and produce different decisions. Coaching is teachers talking and acting in a purposeful way, with the goal of continuously improving their teaching practice. Coaching can take place in many situations, including one-on-one conversations between colleagues, planned conferences, classroom observations, and group sessions where coaches reflect on what they're learning and how they're growing (p. 28-29).

Coaches work with teachers directly in a one-on-one situation in their classrooms and meet with the teacher before and/or after a lesson. Student work can be used as a

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springboard for discussions on teaching strategies or as a way to assist in planning for instruction. A coach must be able to accurately observe and provide feedback in a collaborative and respectful manner. A trusting, collaborative relationship is critical so that the teacher sees the coach's questions not as threatening, but as prompts for reflection. The feedback cannot take the form of critical judgments that put teachers on the defensive (Feger, Woleck, & Hickman, 2004).

Coaching is a positive way to affect the teacher's self-concept, work environment, and professional commitment (Garmston, 1987). Coaching allows teachers to specifically address issues in their instruction and helps them to refine their teaching (Black, Molseed, & Sayler, 2003). Ackland (1991) discusses the fact that there are several coaching models, including peer, collegial, challenge, cognitive, and technical. All of these coaching models have similar formats, goals, and results. Each of the models advance teacher growth in professional dialogue, collegiality, advanced teaching strategies and practices, and teacher reflection.

Neufeld and Roper (2003) write,

> Coaching, like teaching, is not a routine activity. It must be focused on instructional goals and planned, but it must also be responsive to the needs of the learners and the exigencies of specific classroom situations. Coaches not only develop principals' and teachers' knowledge and skill; if they are successful, they also help develop schools' professional cultures as learning organizations (¶ 2).

Coaching offers teachers insight into their own practices and students' behavior and learning. Coaching encourages professional dialogue, and reflection between the coach and the teacher receiving the coaching. Classroom coaching allows teachers to focus on their own students and curriculum. It opens up discussion of real teaching

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issues, and makes meaningful changes to teacher's teaching styles (Black, Molseed, & Sayler, 2003).

Curriculum Development

When teachers are empowered to become curriculum designers, they have the opportunity to know the entire curriculum of the school and be involved in a research-supported professional development activity. By having a deeper understanding of the bigger curriculum picture, teachers gain greater knowledge of how to teach the curriculum. According to Fitzharris (1999),

> Much of the curriculum found in today's schools is based on teachers' past experience in schools, input from textbook manufactures, discipline frameworks, standards, and information from peers. Often a curriculum is only loosely joined together, with students far better acquainted with its scope and sequence than the educators who teach it. With teachers facing growing pressure to teach more, while also being held to higher standards, this approach to curriculum is no longer acceptable. Teachers must be empowered to more effectively design their own curriculum, and to move from the position of curriculum conveyer to that of curriculum designer (p. 30).

The 2001 Elementary and Secondary Act, No Child Left Behind, calls for increased accountability and improved performance. Central to improved student performance is the curriculum. The curriculum is the road map to guarantee that each student is given instruction rooted in national standards and based on outcomes. Connecting professional development with curriculum is extremely important during the current reform movements, with high academic achievement at the core. Across the United States school districts are utilizing curriculum development as part of their professional development plans to support the efforts of reform-based materials and to provide opportunities for teachers to reflect on their current subject areas and their own teaching (Sherin, Drake, & Fuson, 2002).

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DuFour (2004) writes,

> When teachers work together to develop curriculum that delineates the essential knowledge and skills each student is to acquire, when they create frequent common assessments to monitor each student's learning on a timely basis, when they collectively analyze results from those assessments to identify strengths and weaknesses, and when they help each other develop and implement strategies to improve current levels of student learning, they are engaged in the kind of professional development that builds teacher capacity and sustains school improvement (p. 63).

The activities associated with curriculum development such as making inquiries, creating strategies to research and evaluate current practice, and work within district and state requirements are important features of this type of professional development. These activities provide direct relevance to an educator's classroom and educational practices. At the same time, this development provides an opportunity for sustained reflection and growth. Using curriculum development as part of a district's professional development plan, teachers are afforded the tools needed to make sense of curricular materials and standards in a way that will assist students in achieving at high academic levels (Sherin, Drake, & Fuson, 2002).

Examining Student Work

Examining student work has always been an integral part of educator's lives. Recently it has moved from a solitary activity to being a collaborative effort in which teachers learn about their practice by sharing with and listening to colleagues (Richardson, 2001 a). By design, examining student work is a group effort that brings educators together to study their craft. In the process, teachers ask questions such as; What am I currently teaching?, Why am I teaching it the way I am currently teaching it?,

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How do I know if my students are successful?, and What did I learn in the process

(Williams, 1999)?

Richardson (2001 b) states,

This practice of having teachers work together to study student work is one of the most promising professional development strategies in recent years. Examining student work helps teachers intimately understand how state and local standards apply to their teaching practice and to student work. Teachers are able to think more deeply about their teaching and what students are learning. As they see what students produce in response to their assignments, they can see the successes as well as the situations where there are gaps. In exploring those gaps, they can improve their practice in order to reach all students (¶ 5).

Examining student work can be used for multiple purposes. First, examining

student work can be used to hold schools responsible for student achievement. Second, it

can be used to help create academic standards and assist teachers in understanding the

standards. Third, examining student work can simply be used to help teachers think

about their practice and their students (Lewis, 1989). However, examining student work

is more complicated than just talking about an assignment.

Examining student work is more complex than simply pulling together a group of teachers to chat about a student's paper or project. A number of organizations have written protocols to guide these conversations and respect the unique working culture of schools. They are designed to break down the barriers that prevent teachers from viewing and commenting on each other's work. They also are designed to build the skills and culture necessary for collaborative work to flourish (Richardson, 2001 b, ¶ 8).

Protocols help provide the structure to make the situation safe for teachers to ask

challenging questions of each other. A protocol also provides the structure needed to

ensure equity and parity of opportunity for each teacher involved in the process. The

presenter not only personally reflects on an issue or a dilemma, but also has the benefit of

a group of collegial teachers to ask questions and provide feedback to gain new insights

on the situation (Harmony School Education Center, n.d.).

According to the Harmony School Education Center (n.d.),

A "typical" protocol for looking at student work looks like this: A small group of teachers and/or administrators gather in a circle - eight to twelve is a good number. One of the teachers (the presenter) has brought samples of his or her students' work to present. A facilitator gets the discussion going and makes sure that the guidelines and agenda for the protocol are followed. The protocol specifies that time be allotted for different purposes, which may include asking a focusing question, presenting the instructional context (or standards) for the student work, description of the student work, asking clarifying questions, asking "probing" questions, providing feedback on the work, reflecting on the feedback, etc. The protocol may last from 45 minutes to an hour and a half (¶ 7).

By examining student work, teachers are able to think more deeply about their

teaching and what students are learning. "As they see what students produce in response

to their assignments, they can see the successes as well as the situations where there are

gaps. In exploring those gaps, they can improve their practice in order to reach all

students" (Richardson, 2001 b, ¶ 5).

Immersion

According to Lappan (1999), a growing number of teachers do not have enough

experience with subject areas to effectively share with their students. For some reason,

they do not have the experience from inside or outside of the classroom. Immersion,

such as jobs, internships, and specialized training can be utilized to gain first hand

knowledge and assist teachers to gain the experience they are missing. As states and

districts continue to set high academic standards for their students, immersion is one tool

that teachers can use to actively prepare themselves for the classroom.

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Richardson (2000) discusses that students know when their teachers know and do not know the subjects they are teaching. Guaranteeing that teachers have a strong content specific understanding of the subjects they teach has been the focus of school reform efforts for many years. Traditionally, educators have turned to graduate courses and workshops or conferences to gain more knowledge. Time spent on-the-job in fields related to their discipline is another sound professional practice to which teachers could turn.

According to Killion (2002), in order for professional development to have a positive impact on the learning of an educator, "staff development leaders and providers will want to ensure ongoing follow-up and support to facilitate transfer of learning to routine practice... Effective support systems provide personalized feedback for refinement and reflection on practice" (p. 228).

According to Loucks-Horsley in an interview with Sparks (1999 a), "Immersion in inquiry gives teachers opportunities to learn using the methods of inquiry and problem solving that are used in their discipline and that they'll use later with their students. When using this strategy, teachers are actually doing the work of the discipline" (p. 58).

Mentoring

Beginning teachers need support and training to begin a flourishing teaching career. A formal mentoring program attempts to create a system in which the new generation of teachers will have a caring, nurturing, and successful rite of passage into the teaching profession. According to Denmark and Posden (2000),

> The current shortage of teachers should provide enough reason to mentor and take care of novice teachers so they remain in the profession. At the same time, it's

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vital to the profession to provide professional development for experienced teachers, and mentoring is one way of doing just that (¶ 5).

Almost 30 percent of educators leave the field in the first five years of teaching, and in some districts the percentage is even greater. Teacher turnover is a threat to school reform. School reform typically requires years of sustained efforts. With the number of teachers leaving the field in the first five year, the stability that is needed for sustaining the efforts is lost. Within the next decade, over two million new teachers will enter the school districts across the United States. A huge challenge will be to support them effectively (Halford, 1998).

Many teachers enter the field of education directly from the university preparation programs. They begin their career with an often limited repertoire of instructional strategies. Without an opportunity to interact and learn from veteran teachers, many new teachers are unprepared to face the challenges of the classroom (Wong, 2002).

Johnson and Kardos (2002) write,

What new teachers want in their induction is experienced colleagues who will take their daily dilemmas seriously, watch them teach and provide feedback, help them develop instructional strategies, model skilled teaching, and share insights about student's work and lives. What new teachers need is sustained school-based professional development – guided by expert colleagues, responsive to their teaching, and continual through their early years in the classroom (p. 13).

Mentoring, in general, is when a veteran teacher provides information to a beginning teacher or newcomer to a district. The mentor shares experience and knowledge with someone who does not have the experience or knowledge. Both the mentor and the mentee benefit (Harwell-Kee, 1999). According to Holloway (2002), "Mentoring is an important professional development component for all teachers" (p. 88).

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The beginning teachers benefit from an mentorship program, and at the same time, the veteran teachers benefit as well. Auton, Berry, Mullen, and Cochran (2002) list four positive effects of mentorship on veteran teachers. The first positive effect is an increased appreciation for reflective practice. The second is a sense of more effective teaching in their classroom. The third is a new perspective on professionalism. Finally, the fourth is a renewal on the part of the mentor in their own commitment to teaching.

Portfolios

A teacher's portfolio is more than just a container full of artifacts. It is a structured collection of an educator's progress, achievements, contributions and efforts that is selective, reflective, collaborative, and demonstrates accomplishments over time. According to Doolittle (1994), "A teacher portfolio is a collection of work produced by a teacher. Just as an artist uses a portfolio of collected work to illustrate his or her talents, a teacher portfolio is designed to demonstrate the teacher's talents" (p. 1). Doolittle (1994) continues,

> A teacher portfolio is an educational tool, which is primarily used in two ways. First, portfolios are used as means of authentic assessment in evaluating the effectiveness of a teacher for licensure and/or employment decisions. Second, teacher portfolios are used to provide feedback to teachers so that they may improve their teaching and level of professionalism (p.2).

Portfolios can help build communities, collaboration, and collegiality in school systems. A portfolio can help a teacher focus and make meaning of their own work, and any progress that has been made over time. The construction of a portfolio is done in a thoughtful and purposeful manner and can become the basis for rich discussion, reflections, and observations about the work the teacher is doing in the field of education (Dietz, 1999).

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According to Dietz (1999), an underlying concept of a portfolio is simple. A teacher collects items over time to form the basis for discussions by colleagues, administrators, or members of another group. The portfolio may take many forms depending on the final outcome or the objectives behind the creation. Portfolios are excellent tools for professional development. They can be the basis of study groups or the collection point for action research.

Dietz (1999) states there are three types of portfolios commonly used by educators. They are as follows:

1. Employment portfolios – A collection that represents an individual's accomplishments, learning, strengths, and expertise.
2. Assessment portfolio – A collection of assignments, artifacts, and evidence gathered to demonstrate attainment of prescribed competencies, standards, or outcomes.
3. Learning portfolio – An 'envelope of the mind' that provides a framework and process for adult learners to collect artifacts and evidence, discuss them with colleagues, and describe learning outcomes (p. 45).

According to Andrejko (1998), teacher portfolios are strong tools for gathering information and evaluating the progress made towards goals. The careful, thoughtful documentation of what teachers are doing in school encourages educators to self-evaluate and reflect on their practice. This provides them with a guide for future self-improvement and professional development.

Study Groups

Study groups are when groups of teachers and/or administrators come together to learn more about a particular topic. The group reviews and discusses educational literature or educational programs to determine their effectiveness and appropriateness

for their classroom, building, or district (Wood & McQuarrie, 1999). Murphy (1999), states,

> A blender is a kitchen appliance that blends different foods into one dish for the family meal. Likewise, Whole-Faculty Study Groups blend different staff development approaches into classroom experiences for students. When these individuals come together and focus on student learning, the range of knowledge, resources, and experience they bring to the process are blended together for a more powerful impact on all of their students (p. 49).

According to Schaak, Chase, Germundsen, and Brownstein (2000), "The theme of teacher reflection frequently appears in teacher improvement literature as a link to effectiveness" (¶ 1). Teachers have always reviewed their teaching practices and have made adjustments to meet student needs. Traditionally, this has been done as a solitary process. By expanding on this natural tendency, and sharing professional issues and dilemmas with other educators, teachers can improve their effectiveness, the effectiveness of others, student achievement, and professional satisfaction (Schaak et al., 2000).

Ongoing professional dialogue is a key to developing a reflective school community. A community is where meaningful and lasting change in teaching and learning takes place (Routman, 2002). The focus on collegiality and collaboration helps teachers make the shift from making teaching completely private to a system where teachers can learn sharing their teaching and talking about it with their colleagues (Willis, 2002).

Lieberman and Wood (2002), state, "Students benefit when teachers share and critique their best ideas and strategies with one another" (p. 41). Although Routman (2002) writes,

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As teachers start meeting regularly, typical conversations may be superficial and touch on all aspects of teaching. Initially, many teachers use the time to air their feelings about school life. Because they aren't used to "conversing." they may have to get these general concerns out of the way first. It often takes more than a year for meetings to focus on curriculum and improving student learning (p. 34).

According to Murphy (1999) study groups should utilize a method to structure their meetings that includes the following:

1. Analyze a wide range of data and indicators describing the status of student learning and the condition of the learning environment.
2. Using the data, generate a list of student needs.
3. Categorize student needs and prioritize the categories or clusters.
4. Organize study groups around the prioritized student needs.
5. Create study group action plans.
6. Implement the study group action plan.
7. Evaluate the impact of the study group effort on student performance (p. 49-50).

During the involvement in the research-supported professional development process of study groups, the participants increase their knowledge and skills to assist in increasing student achievement. The educators are able to understand the process of a new instructional strategy before trying it in their classrooms. At the same time, the staff learns a great deal about sharing and problem solving (Wood & McQuarrie, 1999).

Workshops/Conferences

Border (1996) states that workshops help serve the function of supporting teaching. They allow for up-to-the-minute interventions and provide teachers with the educational support they need. The real value of workshops is that they are process-oriented. They can address an immediate need of educators or educational systems. "Some research does exist that attempts to demonstrate that what is learned in workshops has no effect on teaching performance. But there is also research demonstrating that inservice workshops do have a positive effect on instruction" (p.1).

According to Loucks-Horsley in an interview with Sparks (1999 a), documented in the 15 Strategies for Professional Development matrix, a workshop, institute, course or seminar can be defined as using structured opportunities outside the classroom to focus intensely on topics of interest, and to learn from others with more expertise. A workshop can also defined as a short training that attempts to introduce and explain a concept in the field of education. The activities are characterized by audience participation, presenter feedback and handout materials on the educational topic (Border, 1996).

Border (1996) states, "Inservice workshops on teaching have value and serve purposes that full in-depth courses on pedagogy may not address and target audiences that full in-depth courses miss. Workshops can be designed to be timely and to focus on the problem at hand rather than the principle in discussion" (p.2). Workshops can stimulate interest in an educational topic that then requires further study. Introductory workshops are important because they allow educators to evaluate a new program, teaching method, or practice for merit and then follow up with additional detail at a later date (Border, 1996).

In the past, many teachers have attended workshops without any follow-up activities, training, or reflection. Richardson (2003) writes,

> The federal No Child Left Behind legislation may change this. Merely spending money on staff development will not be sufficient when NCLB requires educators to point to the results of their work. Researchers widely agree that there will be no such benefit without structured follow-up as part of staff development. Both the adult learners and staff development leaders bear responsibility for ensuring that what is learned is later used in practice (p. 1).

For workshops/conferences to be effective, teachers and principals need to know ahead of time what they expect to gain from the professional development and how they

expect to use what they learn (Richardson, 1999). Follow-up reflection or action is necessary for a workshop/conference to be effective. According to Richardson (2003), "If staff developers keep these issues in mind during every workshop or training they can prepare participants to walk back to their schools better prepared to use what have learned" (p. 1).

Workshops/conferences can be effective as a professional development activity if they are part of a larger personal, building, or district professional development plan. Workshops/conferences can provide current, up-to-date training for staff that will be utilized to assist the staff person, building, or district increase student achievement and meet continuous improvement goals.

Summary

The goal of the National Staff Development Council, the largest non-profit professional association committed to ensuring success for all students through staff development and school improvement, is that all teachers in all schools will experience high-quality professional learning as part of their daily work by 2007. According to Holloway (2003), "Evidence of student learning can be a powerful tool to guide professional development" (p. 85). Educators, buildings, and districts should utilize student learning data and the research-supported professional development practices in this review of literature to impact student achievement and fulfill the goal of the NSDC.

This chapter explored the history of professional development from the 1800s to the 1960s and from the 1970s to the present, the major stages of a career in education, and research-supported professional development in the field of education including; action research, case studies, coaching, curriculum development, examining student

work, immersion, mentoring, portfolios, study groups, and workshops/conferences. This is not an all inclusive list of professional development activities. The review of literature was limited to the work completed by the NSCD and the research-supported professional development activities that were included in the survey utilized in the study. Additional activities such as on-line learning, individual reading of professional journals or literature, and graduate study at the college or university level were not reviewed. The following chapter will describe the methodology employed for the data collection and analysis for this study.

CHAPTER III

METHODOLOGY

Chapter III presents the purpose of the study, the research questions, and the description of the instrument. This chapter describes the research sample and data collection procedures used to conduct this study as well as the statistical treatment of the data.

Purpose of the Study

The purpose of this study was to investigate the degree of involvement of K-12 educators in a Minnesota district in research-supported professional development (RSPD), to determine the perceived needs for future professional development of the same K-12 educators, and to determine whether recent participation in RSPD activities, areas, and approaches impacted the K-12 educators perceived professional development needs and/or wants. The data provided the district needed information to help base future professional development activities and helped to provide a portion of the required needs assessment under the current Elementary and Secondary Education Act, No Child Left Behind (NCLB). The investigation disaggregated data concerning the involvement, perceived needs, and the impact of recent participation by gender, years of teaching experience, and education levels in order to achieve its purposes.

Research Questions

Descriptive Results

1a. What was the actual recent involvement of the K-12 educators in Research Supported Professional Development (RSPD) activities, areas, and approaches?

1b. What was the desired involvement of the K-12 educators in RSPD activities, areas, and approaches?

Comparisons

2a. What differences existed in the recent involvement of K-12 educators in RSPD activities, areas, and approaches compared by gender, years of experience as a classroom teacher, current teaching level, and current education level?

2b. What differences existed in the desired involvement of K-12 educators in RSPD activities, areas, and approaches compared by gender, years of experience as a classroom teacher, current teaching level, and current education level?

Relationships

3a. What was the relationship between recent involvement in RSPD activities and the desire to be involved in other RSPD activities?

3b. What was the relationship between recent involvement in RSPD areas and the desire to be involved in other RSPD areas?

3c. What was the relationship between recent involvement in RSPD approaches and the desire to be involved in other RSPD approaches?

Description of Instrument

The survey instrument, Professional Development Survey – Needs Assessment (see Appendix A), was developed for a school district located in Minnesota. The district that developed the survey did so as part of a professional development needs assessment as well as to partially fulfill requirements from the Minnesota Department of Education and the federal government as part of the 2001 Elementary and Secondary Education Act, No Child Left Behind (NCLB). The district elicited participation in the winter of 2004 from its K-12 teaching staff in the district's six schools. The six schools were comprised of three elementary schools, one middle school, one high school, and one alternative high school. The survey population totaled 222 K-12 educators.

The district spent two months developing and modifying the survey instrument to measure recent involvement in professional development activities, areas, and approaches and to measure desired future involvement in professional development activities, areas, and approaches. The assistant superintendent for curriculum and instruction for the district created the first draft of the Professional Development Survey – Needs Assessment. An administrator at a Minnesota college reviewed the survey for readability and for possible changes to be implemented. The assistant superintendent modified the first draft and created the second draft of the Professional Development Survey. The survey was then reviewed by a small group of teaching staff members to ensure readability of the survey and to suggest possible changes to be implemented. After the review, the assistant superintendent concluded that the instrument was adequate in form and content, and did not require additional revisions.

The survey contained 55 questions. Demographic information was obtained through questions one through five on the survey. Demographic factors included gender, years of classroom teaching experience, current teaching level, main teaching assignment, and current education level. Ten researched-supported professional development activities included in the survey were defined for the teaching staff members in questions six through fifteen of the instrument.

Questions from the survey were used to determine which research-supported professional development (RSPD) activities the K-12 educator had been involved in during the last twelve months. The National Staff Development Council published the *Journal of Staff Development: Powerful Designs New Approaches Ignite Professional Learning* in the summer of 1999 (Lynn & Sparks, 1999). The journal focused on professional development activities that had been found to be, according to the editors, "powerful designs that other schools and districts are using effectively" (p. 9). The editors declared, "this collection is not the final word, but it is a starting point for designs that hold promise for improving adult learning and, ultimately, improved student achievement" (p. 9). It was from these powerful designs that the RSPD activities were chosen for this study. Items 6-15 were used for this purpose.

Questions from the survey were used to determine which professional development areas the K-12 educators had been involved in during the last twelve months and the approximate number of hours: 1-4 hours, 5-8 hours, 9-16 hours, or more than 16 hours. The RSPD areas were based on the major foci for professional development as defined in the Teacher Preparation and Professional Development: 2000 survey created by the National Center for Education Statistics (NCES). According to the

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U.S. Department of Education, National Center of Educational Statistics (2001), the NCES "is the primary federal entity for collecting, analyzing, and reporting data related to education in the United States and other nations. It fulfills a congressional mandate to collect, collate, analyze, and report full and complete statistics on the condition of education in the United States; conduct and publish reports and specialized analyses of the meaning and significance of such statistics; assist state and local education agencies in improving their statistical systems; and review and report on education activities in foreign countries" (p. ii). Items 16-25 were used for this purpose.

Questions from the survey were used to determine which professional development activities the K-12 educator had been involved during the last twelve months and the approximate number of times (once or twice a year, multiple times a year, once a month, two or three times a month, or at least once a week) the K-12 educator was involved. The RSPD approaches were based on the NCES activities related to teaching included in the Teacher Preparation and Professional Development: 2000 survey (NCES, 2001). Items 26-30 were used for this purpose.

Questions from the survey were used to determine which of the RSPD activities the teaching staff members would like to be involved during the next twelve months. Items 32-41 were used for this purpose. The same questions were used to determine if a teaching staff member would participate in the professional development activities if time was used during the teaching staff member's existing contract days or if the K-12 educator completed the activity on his/her own time.

Questions from the survey were used to determine which professional development areas the K-12 educator felt should be included in the K-12 educator's

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district professional development plan during the next twelve months. Items 42-51 were used for this purpose. Questions from the survey were used to determine which professional development approaches the K-12 educator felt should be included in the K-12 educator's district professional development plan during the next twelve months. Items 52-55 were used for this purpose.

Research Sample

The district used for this study has a population of 14,827 and covers 312 square miles, which represents almost half of the county's total residents. The K-12 student population is 2,852. Eighty percent of the district's students are transported by bus. The district grade configuration for the schools is as follows: three elementary schools serving grades K-5 (elementary one: student population 553, elementary two: student population 555, and elementary three: student population 83), a middle school serving grades 6-8 (student population 663), a high school serving grades 9-12 (student population 879), an area learning center and an independent study alternative learning program serving grades 9-12 (student population 119).

At the elementary level, 38.2% of students are eligible for free and reduced lunch; at the middle school level 36.4% are eligible and 22.3% are eligible at the high school level. Overall the district has a free and reduced lunch rate of 30.6%. The district enrollment is 2,852, with 932 of the students eligible for free and reduced lunch. All three of the district's elementary schools are Title I buildings and one elementary is a school-wide Title I building.

The demographics of the district are slowly changing. During the 2002-03 school year, 85.6% of students were Caucasian, 11.6% were Native American and 2.7% were

other children of color. In the district, 20.5% of the students are enrolled in Special Education. A very small number of students (0.11%) in the district are limited English proficient.

The district has 222 teachers. Of the 222 teachers, 192 teachers responded to the survey. The average years of experience in the district is 15.7 years. The average age of the full time teachers in the district is 41.3 years of age. During the 2003-2004 school year, there were six first year teachers in the district.

Administration of Survey

In March 2004, copies of the survey instrument (Professional Development Survey – Needs Assessment) were provided to the principals of the buildings participating in the study. During a monthly principals' meeting, the assistant superintendent for curriculum and instruction instructed the principals on the procedures to utilize when issuing the survey. Because the purpose of the survey was to gain a better understanding of the school district's teaching staff members' attitudes and beliefs concerning professional development, all K-12 teaching staff members were asked to participate in the survey. Due to the fact that the survey was conducted as part of the district's typical practice, no consent forms were required. The survey was administered to all teaching staff members during the same week in March 2004. Building principals administered the survey in a time and place that was most conducive to their school schedule.

The principals prepared their staff for the survey by stating the purpose of the survey and by explaining the procedures to utilize when completing the survey. Teaching staff members were reminded that the survey would not be timed and that no identifiable

information would be revealed through participating in the survey. The teaching staff members were instructed to use a #2 pencil to make solid marks that fill the response completely of the most correct response to each of the remaining questions. They were reminded not to write their names on the survey.

Once the surveys were completed, each teaching staff member returned the survey to the building principal. During the second week in March 2004, the assistant superintendent for curriculum and instruction for the district collected all surveys.

Permission to utilize the data from the survey in this study was requested of and approved by the superintendent of the district (see Appendix B). The letter of support and approval to utilize the pre-existing data was forwarded to the Institutional Review Board (IRB) at the University of North Dakota as part of the IRB permission process. The IRB at the University of North Dakota granted permission for this study to be conducted utilizing the pre-existing data.

Procedures for Data Analysis

The survey instrument was collected and scanned by the assistant superintendent for the district. The data were then sent to the Bureau of Education Statistics and Applied Research (BESAR) at the University of North Dakota where it was processed and analyzed. The following explains the statistical analysis that was conducted to answer the research questions of this study.

Descriptive Statistics

1a.   What was the actual recent involvement of the K-   Descriptive Results

12 educators in Research Supported Professional

Development (RSPD) activities, areas, and approaches?

1b.   What was the desired involvement of the K-12   Descriptive Results

educators in RSPD activities, areas, and approaches?

Comparisons

2a.   What differences existed in the recent   MANOVA

involvement of K-12 educators in RSPD activities, areas, ANOVA

and approaches compared by gender, years of experience   Bonferroni post hoc

as a classroom teacher, current teaching level, and

current education level?

2b.   What differences existed in the desired   MANOVA

involvement of K-12 educators in RSPD activities, areas, ANOVA

and approaches compared by gender, years of   Bonferroni post hoc

experience as a classroom teacher, current teaching level,

and current education level?

Relationships

3a.   What was the relationship between recent   Pearson Correlation

involvement in RSPD activities and the desire to be

involved in other RSPD activities?

3b.   What was the relationship between recent   Pearson Correlation

involvement in RSPD areas and the desire to be

involved in other RSPD areas?

3c.   What was the relationship between recent   Pearson Correlation

involvement in RSPD approaches and the desire to be

involved in other RSPD approaches?

Chapter IV describes presents the results of these analyses. The data are presented in tabular and narrative form.

CHAPTER IV

RESULTS

The purpose of this study was to investigate the degree of involvement of K-12

educators in a Minnesota district in research-supported professional development

(RSPD); to determine the perceived needs for future professional development of the

same K-12 educators, and to determine whether recent participation in RSPD activities,

areas, and approaches impacted the K-12 educators perceived professional development

needs and/or wants. The investigation disaggregated data concerning the involvement,

perceived needs, and the impact of recent participation by gender, years of teaching

experience, and education levels in order to achieve its purposes. For the purpose of this

study, the statistical significance was set at the .05 level.

This study utilized the data collected from the Professional Development Survey

– Needs Assessment (see Appendix A). In all, 222 surveys were distributed to the

teaching staff of a Minnesota school district and 193 surveys were completed and

returned. Prior to data analysis, two surveys were eliminated due to incomplete data.

The two surveys had more than 25% of the data missing. A total of 191 valid surveys

were returned for a response rate of 86%. After analysis of the data, it was determined

that only two teachers indicated their current educational level as specialist degree and no

teachers indicated their current educational level as doctorate degree. An additional

category was created to include teachers that indicated their current educational level

Table 1

Frequency and Percentage of Respondents (N=191) for Demographic Information of Gender, Years of Experience as a Classroom Teacher, Current Teaching Level, and Current Education Level for the Survey

Characteristics	N	%
Gender		
Female	124	66
Male	63	34
Years of Experience as a Classroom Teacher		
Less than 3 Years	9	5
3 to 9 Years	43	23
10 to 20 Years	71	38
More than 20 Years	64	34
Current Teaching Level		
Elementary	86	46
Middle Level	43	23
High School	58	31
Current Education Level		
Bachelors Degree	126	68
Masters Degree	58	31
Specialist Degree	2	1
Doctorate Degree	0	0
Masters Plus	60	32

as master's degree, specialist degree or doctorate degree. This additional category was named Masters Plus.

Table 1 presents the teacher demographic data from the study. The table presents the number of respondents in each demographic category and the percentage of the sample it comprised. Female respondents numbered 124 (66%) compared to male respondents of 63 (34%). Five percent indicated less than three years of classroom teaching experience, 23% indicated 3 to 9 years, 38% indicated 10 to 20 years and 34% indicated more than 20 years of classroom teaching experience. Of the respondents, 46% indicated elementary as their current teaching level, 23% stated middle level, and 31% indicated high school as their current teaching level. The majority (68%) of the sample indicated their current education level as bachelor's degree.

<div align="center">Research Question One</div>

Research question 1a asked, "What was the actual recent involvement of the K-12 educators in Research Supported Professional Development (RSPD) activities, areas, and approaches? Questions six through thirty on the Professional Development Survey – Needs Assessment were analyzed to answer this question.

The Professional Development Survey – Needs Assessment asked in questions six through 15, in which professional development activities had they been involved during the last 12 months? Table 2 presents the data from these survey questions. The table identifies the number and percentage of the respondents who indicated that they had not been involved or had been involved in each of the ten RSPD activities. The two activities that the respondents indicated they had been involved in the most during the last 12

Table 2

Frequency and Percentage of Respondents (N=191) for Professional Development
Activities: Involvement During the Last 12 Months

Activities	No		Yes	
	N	%	N	%
Action Research	150	79	40	21
Case Studies	99	53	89	47
Coaching	98	52	92	48
Immersion	16	8	173	92
Examining Student Work	101	54	87	46
Curriculum Development	126	67	62	33
Mentoring	45	24	143	76
Portfolios	146	78	42	22
Study Groups	158	84	30	16
Conferences/Workshops	163	86	26	14

months were immersion (92%) and mentoring (76%). The four activities in which the

respondents were least involved were conferences/workshops (86% not involved), study

groups (84% not involved), action research (79% not involved), and portfolios (78% not

involved). The remaining four activities ranged from 33% to 48% involvement.

The Professional Development Survey – Needs Assessment asked in questions 16

through 25, in which professional development areas had they been involved during the

last 12 months? Table 3 presents the data from these survey questions. The table

identifies the number and percentage of the respondents who indicated they had not been

Table 3

Frequency and Percentage of Respondents (N=191) for Professional Development Areas: Involvement During the Last 12 Months

Areas	Not Involved		1-4 Hours		5-8 Hours		9-16 Hours		> 16 Hrs.	
	N	%	N	%	N	%	N	%	N	%
In depth study in main teaching assignment	47	25	33	17	33	17	23	12	54	28
Curriculum and standards	63	33	50	26	30	16	20	11	28	15
Integration of technology	68	36	61	32	23	12	10	5	28	15
Performance assessment	65	35	46	25	33	18	15	8	29	15
Classroom management	65	34	57	30	29	15	13	7	26	14
Addressing needs of students from diverse cultures	98	51	57	30	16	8	6	3	14	7
Addressing needs of students with LEP	156	82	23	12	7	4	1	0.5	4	2
Addressing needs of students with disabilities	72	38	52	27	21	11	7	4	39	20
Encouraging parent involvement	54	28	76	40	23	12	15	8	23	12
New methods of teaching	38	20	62	33	46	24	16	8	29	15

involved or had been involved in each of the ten RSPD areas and if they had been involved, the number of hours they had been involved in the past 12 months. The respondents estimated the number of hours of involvement. The data reveal that 28% of the teachers indicated they were involved in in-depth study in the subject area of their main teaching assignment more than 16 hours during the last 12 months and 12% indicated 9 – 16 hours of involvement during the same period of time. In-depth study was the highest area in those two time categories. New methods of teaching had the highest percentage of teachers in the 5 – 8 hour time category. Encouraging parent and community involvement had the highest percentage in the 1 – 4 hour time category.

The data from the teachers who responded to the survey indicated that 82% of the staff was not involved in the professional development area of addressing the needs of students with limited English proficiency. This item was followed by the area of addressing the needs of students from diverse cultures with 51% of the teachers indicating they were not involved. Addressing the needs of students with limited English proficiency was the area that had the lowest percentage of teachers that were involved in all the time categories.

The Professional Development Survey – Needs Assessment asked in questions 26 through 30, in which professional development approaches had they been involved during the last 12 months? Table 4 presents the data from these survey questions. The table identifies the number and percentage of the respondents who indicated that they had not been involved or had been involved in each of the ten RSPD approaches and if they had been involved, the number times they had been involved in the past 12 months. The two approaches that the largest percentage of teachers who indicated that they had been

Table 4

Frequency and Percentage of Respondents (N=191) for Professional Development
Approaches: Involvement During the Last 12 Months

Approaches	Not Involved		1 or 2 times a year		Multiple times a year		Once a month		2 or 3 times a month		At least once a month	
	N	%	N	%	N	%	N	%	N	%	N	%
Common planning time	76	40	14	7	26	14	9	5	5	3	61	32
Networking outside assigned school	53	28	52	27	54	28	8	4	13	7	11	6
Regularly scheduled collaboration	63	33	24	13	43	23	12	6	9	5	40	21
Research on a topic of interest	65	35	50	26	28	15	17	9	14	7	17	9

involved at least once a month were common planning time (32%) and regularly

scheduled collaboration with other teachers (21%). Only 3% of the teachers indicated

that they had been involved 2 – 3 times a month in common planning time, 5% in

regularly scheduled collaboration with other teachers, and 7% in networking with

teachers outside their assigned school and individual or collaborative research on a topic

of interest. Networking (28%) and regularly scheduled collaboration (23%) had the

highest percentage of teachers indicating involvement multiple times a year. Networking

(27%) and research on a topic of interest (26%) had the highest percentage of

involvement 1 to 2 times a year.

Table 5

Frequency and Percentage of Respondents (N=191) for Professional Development
Activities: Involvement During the Next 12 Months

Activities	No, I would not like to be involved		Yes, if time was used during existing		Yes, even on my own time contact day	
	N	%	N	%	N	%
Action Research	60	32	98	52	29	16
Case Studies	65	35	94	51	25	14
Coaching	56	30	99	52	34	18
Curriculum Development	40	21	109	58	40	21
Examining Student Work	61	32	107	57	20	11
Immersion	86	46	80	42	23	12
Mentoring	62	33	94	50	31	17
Portfolios	82	43	83	44	25	13
Study Groups	72	38	93	49	24	13
Workshops/ Conferences	13	7	110	58	66	35

Research question 1b asked, "What was the desired involvement of the K-12

educators in RSPD activities, areas, and approaches?" Questions 32 through 55 on the

Professional Development Survey – Needs Assessment were analyzed to answer this

question.

The Professional Development Survey – Needs Assessment asked in questions 30 through 41, in which professional development activities would they like to be involved during the next 12 months? Table 5 presents the data from these survey questions. The table identifies the number and percentage of the respondents who indicated they would not like to be involved, would like to be involved if time was used during the contract day, or would like to be involved even on their own time in each of the ten RSPD activities in the next 12 months. The two activities that the largest percentage of teachers indicated they would like to be involved even if it was on their own time were workshops/conferences (35%) and curriculum development (21%). The two activities that the largest percentage of teachers indicated they did not want to be involved were immersion (46%) and portfolios (43%). In each of the activity categories, between 42% and 58% of the teachers indicated they would like to be involved if time was used during the contract day.

The Professional Development Survey – Needs Assessment asked in questions 42 through 51, which professional development areas should be included in your district's professional development during the next 12 months? Table 6 presents the data from these survey questions. The table identifies the number and percentage of the respondents who indicated they did not feel the RSPD activities needed to be in the district's professional development plan and those who did feel the RSPD activities needed to be included in the district's professional development plan in the next 12 months. Integration of educational technology was the area that the highest percentage of teachers indicated they felt needed to be included in the professional development plan (72%). Addressing needs of students with limited English proficiency had they lowest

Table 6

Frequency and Percentage of Respondents (N=191) for Professional Development Areas:
To be Included in the District's Professional Development During the Next 12 Months

Areas	No, not needed		Yes, needed	
	N	%	N	%
In depth study in main teaching assignment	70	37	119	63
Curriculum and standards	65	34	124	66
Integration of technology	54	28	136	72
Performance assessment	82	44	106	56
Classroom management	79	42	109	58
Addressing needs of students from diverse cultures	92	49	97	51
Addressing needs of Students with LEP	149	79	40	21
Addressing needs of students with disabilities	81	43	108	57
Encouraging parent involvement	66	35	123	65
New methods of teaching	65	34	124	66

percentage of teacher indicating it as a need (21%). The remaining areas all were greater

than 50% indicating them as needs and included; new methods of teaching (66%),

curriculum development (66%), encouraging parent involvement (65%), classroom

management (58%), performance assessment (56%), addressing needs of students with

disabilities (57%), and addressing needs of students from diverse cultures (51%).

Table 7

Frequency and Percentage of Respondents (N=191) for Professional Development
Approaches: Should be Included in the District's Professional Development Plan During
the Next 12 Months

Approaches	No, not needed		Yes, needed	
	N	%	N	%
Common planning time	36	19	154	81
Networking outside assigned school	49	26	142	74
Regularly scheduled collaboration	23	12	166	88
Research on a topic of interest	74	39	117	61

The Professional Development Survey – Needs Assessment asked in questions 53

through 55, which professional development approaches should be included in your

district's professional development plan during the next 12 months? Table 7 presents the

data from these survey questions. The table identifies the number and percentage of the

respondents who indicated they did not feel the RSPD areas needed to be in the district's

professional development plan and those who did feel the RSPD areas needed to be

included in the district's professional development plan in the next 12 months. Regularly

scheduled collaboration (88%) and common planning time (81%) were the two

approaches that the highest percentage of teachers indicated needed to be in the district's

professional development plan. The remaining two approaches, networking outside the

teachers assigned school (74%) and research on a topic of interest (61%), both had over

60% of the teachers indicating them as needs.

Research Question Two

Research question 2a asked, "What differences existed in the recent involvement of K-12 educators in RSPD activities, areas, and approaches compared by gender, years of experience as a classroom teacher, current teaching level, and current education level?" Research question 2b asked, "What differences existed in the desired involvement of K-12 educators in RSPD activities, areas, and approaches compared by gender, years of experience as a classroom teacher, current teaching level, and current education level?" In order to answer these two questions, six summated variables were created representing the current activities, current areas, and current approaches the respondents indicated they had been involved in the past 12 months and the desired activities, desired areas, and desired approaches the respondents indicated they would like to be involved during the next 12 months. The variables were created by finding the total score for each respondent by adding their individual question scores. Current activities totaled questions 6 through 15, current areas totaled questions 16 through 25, and current approaches totaled questions 26 through 30 on the Professional Development Survey – Needs Assessment. Desired activities totaled questions 32 through 41, desired areas totaled questions 42 through 51, and desired approaches totaled questions 52 through 55 on the Professional Development Survey – Needs Assessment. Table 8 indicates the range of scores for these variables.

Table 9 presents the means and standard deviations for current and desired activities, areas and approaches by gender and the results of the analysis for significant differences by gender. Multivariate Analysis of Variance (MANOVA) was used (Wilks's lambda = .897, F = 3.450, 6, df = 6, 180, p =.033) to determine the differences

Table 8

Range of Scores for Variables Current Activities, Current Areas, Current Approaches, Desired Activities, Desired Areas, and Desired Approaches

Variables	Range	
	Low	High
Current Activities	10	20
Current Areas	10	50
Current Approaches	4	20
Desired Activities	10	30
Desired Areas	10	20
Desired Approaches	4	8

by males and females across the six variables when males and females were compared. Significant differences were found in the six variables. Univariate Analysis of Variance (ANOVA) tests were conducted for each of the six variables: current activities, current areas, current approaches, desired activities, desired areas, desired approaches. The univariate ANOVA for current approaches ($F = 6.173, 1, df = 1, 185, p = .014$) indicated significant differences across gender. The female educators in this study had a statistically higher involvement in RSPD activities than the male educators. Also the analysis findings for desired approaches ($F = 15.375, 1, df = 1, 185, p < .001$) indicated significant differences across gender as well. The female educators in this study had a statistically higher desire to be involved in RSPD activities than the male educators. The results indicate that gender influences both the current level of involvement in

Table 9

Results with Means and Standard Deviations for Current and Desired Activities, Areas and Approaches by Males and Females

Variables	Female (n = 124)	Male (n= 63)	p	Sig. Diff
Current Activities	13.93 (2.16)	14.14 (1.95)	.506	–
Current Areas	24.07 (8.60)	21.59 (8.62)	.064	–
Current Approaches	12.00 (5.37)	10.02 (4.71)	.014	Y
Desired Activities	18.90 (4.34)	17.59 (4.71)	.059	–
Desired Areas	15.95 (2.57)	15.24 (2.61)	.076	–
Desired Approaches	7.25 (0.94)	6.62 (1.21)	< .001	Y

professional development approaches, and the desired level of involvement in professional development approaches for K – 12 educators in this study.

Table 10 presents the means and standard deviations for current and desired activities, areas and approaches by years of classroom experience and the results of the analysis for significant differences by years of classroom experience. MANOVA was used (Wilks's lambda = .773, F = 2.665, 18, df = 18, 504, p < .001) to determine the differences across the six variables when years of experience as a classroom teacher was compared on four levels. Significant differences were found across the six variables by years of experience. Univariate Analysis of Variance (ANOVA) tests were conducted for

Table 10

Results with Means and Standard Deviations for Current and Desired Activities, Areas and Approaches by Years of Experience as a Classroom Teacher

Variables	1 Less than 3 years (n = 9)	2 3 to 9 years (n= 43)	3 10 to 20 years (n= 71)	4 More than 20 year (n= 64)	p	Significant Difference					
						1-2	1-3	1-4	2-3	2-4	3-4
Current Activities	13.11 (1.54)	13.44 (2.26)	13.87 (1.93)	14.64 (2.05)	.011	_	_	_	_	Y	_
Current Areas	20.44 (10.08)	24.21 (8.36)	23.92 (8.40)	22.22 (8.96)	.427	_	_	_	_	_	_
Current Approaches	16.33 (4.58)	11.02 (5.68)	10.93 (5.13)	11.28 (4.86)	.031	Y	Y	Y	_	_	_
Desired Activities	23.00 (3.94)	19.09 (4.29)	18.75 (4.15)	17.08 (4.60)	.001	_	Y	Y	_	_	_
Desired Areas	17.11 (2.62)	16.56 (1.98)	15.75 (2.67)	14.91 (2.67)	.003	_	_	_	_	Y	_
Desired Approaches	7.33 (1.11)	7.30 (.94)	7.15 (.92)	6.69 (1.25)	.012	_	_	_	_	Y	_

each of the six variables. The univariate ANOVA for current activities ($F = 3.835$, 3, $df = 3, 183, p = .011$), current approaches ($F = 3.028$, 3, $df=3, 183, p = .031$), desired activities ($F = 5.873$, 3, $df= 3, 183, p = .001$), desired areas ($F = 4.709$, 3, $df = 3, 183, p = .003$), and desired approaches ($F = 3.772$, 3, $df = 3, 183, p = .012$), indicated significant differences across years of experience as a classroom teacher.

To further analyze differences in the six variables by years of experience as a classroom teacher Bonferroni's post hoc comparisons were conducted. Significant differences were found in current activities between teachers with 3 to 9 years of

experience and teachers with more than 20 years experience ($p = .020$). The K – 12

educators in this study with more than 20 years of classroom experience had a

statistically higher involvement in RSPD activities than those teachers with 3 to 9 years

of experience.   In addition significant differences were found in current approaches

between teachers with less than 3 year experience and teachers with 3 to 9 years

experience ($p = .033$), teachers with less than 3 years experience and teachers with 10 to

20 years experience ($p = .021$), and teachers with less than 3 years experience and

teachers with more than 20 year experience ($p = .039$). The K – 12 educators in this

study with less than 3 years of classroom experience had a statistically higher

involvement in RSPD approaches than those teachers with 3 to 9 years, 10 to 20 years,

and more than 20 years of experience. Significant differences were found in desired

activities between teachers with less than 3 years experience and teachers with 10 to 20

years experience ($p = .037$) and teachers with less than 3 years experience and teachers

with more than 20 year experience ($p = .001$). The K – 12 educators in this study with

less than 3 years of classroom experience had a statistically higher desire to be involved

in RSPD activities than those teachers with 10 to 20 years and more than 20 years of

experience. Significant differences were found in desired areas between teachers with 3

to 9 years experience and teachers with more than 20 years experience ($p = .007$). Finally

significant differences were found in desired approaches between teachers with 3 to 9

years experience and teachers with more than 20 years experience ($p = .021$). The K – 12

educators in this study with 3 to 9 years of classroom experience had a statistically higher

desire to be involved in RSPD areas and approaches than those teachers with more than

20 years of experience. The results indicate that years of classroom experience

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influences involvement in current professional development activities and approaches and desired involvement in professional development activities, areas, and approaches for the K – 12 educators in this study.

Table 11 presents the means and standard deviations for current and desired activities, areas and approaches by current teaching level and the results of the analysis for significant differences by current teaching level. MANOVA was used (Wilks's lambda = .655, F = 7.016, 12, df = 12, 358, p < .001) to determine the differences across the six variables when current teaching level was compared. Significant differences were found across the six variables. Univariate Analysis of Variance (ANOVA) tests were conducted for each of the six variables by current teaching level. The univariate ANOVA for current approaches (F = 25.024, 2, df = 2,184, p < .001), desired activities (F = 5.459, 2, df = 2, 184, p = .005), desired areas (F = 4.672, 2, df = 2, 184, p = .010), and desired approaches (F = 5.528, 2, df = 2, 184, p = .005), indicated significant differences by current teaching level.

To further analyze differences in the six variables by current teaching level Bonferroni's post hoc comparisons were conducted. Significant differences were found in current approaches between elementary and middle level teachers (p = .003) and elementary and high school teachers (p = .001), middle level and high school teachers (p = .001). The K – 12 educators in this study at the middle level had a statistically higher involvement in RSPD approaches than teachers at the elementary or the high school. The elementary educators had a statistically higher involvement in RSPD approaches than teachers at the high school. Significant differences were found in desired activities between elementary and middle level teachers (p = .005) and middle level and high

Table 11

Results with Means and Standard Deviations for Current and Desired Activities, Areas and Approaches by Current Teaching Level

Variables	1 Elementary (n = 86)	2 Middle Level (n= 43)	3 High School (n= 58)	p	Significant Diff. 1-2	1-3	2-3
Current Activities	14.06 (1.95)	13.84 (2.05)	14.03 (2.33)	.843	–	–	–
Current Areas	23.95 (8.60)	23.12 (8.90)	22.26 (8.62)	.515	–	–	–
Current Approaches	11.77 (4.85)	14.72 (5.28)	8.17 (3.82)	< .001	Y	Y	Y
Desired Activities	17.79 (4.08)	20.40 (5.01)	18.02 (4.36)	.005	Y	–	Y
Desired Areas	15.63 (2.67)	16.64 (2.50)	15.12 (2.40)	.010	–	–	Y
Desired Approaches	7.21 (.95)	7.21 (1.04)	6.66 (1.21)	.005	–	Y	Y

school teachers ($p = .024$). The middle level educators had a statistically higher desire to be involved in RSPD activities than teachers at the elementary or the high school. Significant differences were found in desired areas between middle level and high school teachers ($p = .008$). The middle level educators had a statistically higher desire to be involved in RSPD areas than teachers at the high school. Finally, significant differences were found in desired approaches between elementary and high school teachers ($p = .007$) and middle level and high school teachers ($p = .029$). The middle level educators had a statistically higher desire to be involved in RSPD approaches than teachers at the

Table 12

Results with Means and Standard Deviations for Current and Desired Activities, Areas and Approaches by Current Education Level

Variables	Bachelors (n = 126)	Masters Plus (n= 60)	p	Sig. Diff
Current Activities	14.05 (2.09)	13.87 (2.09)	.582	—
Current Areas	22.84 (8.43)	24.02 (9.20)	.390	—
Current Approaches	11.33 (4.95)	11.17 (5.70)	.846	—
Desired Activities	18.40 (4.39)	18.65 (4.78)	.721	—
Desired Areas	15.67 (2.67)	15.82 (2.49)	.715	—
Desired Approaches	6.99 (1.08)	7.12 (1.08)	.464	—

high school. Elementary educators had a statistically higher desire to be involved in RSPD approaches than teachers at the high school. The results indicate that current teaching level influences involvement in current professional development approaches and desired activities, areas, and approaches for the K – 12 educators in the study.

Table 12 presents the means and standard deviations for current and desired activities, areas and approaches by current education level and the results of the analysis for significant differences by current education level. Multivariate Analysis of Variance (MANOVA) was used (Wilks's lambda = .991, F = .256, 6, df = 6, 179, p = .956) to determine the differences across the six variables when current educational level was compared. No significant differences were found across the six variables.

Univariate Analysis of Variance (ANOVA) tests were conducted for each of the six variables. No significant differences were found between teachers with a bachelor's degree and teachers with a masters degree plus for any of the six variables. The results indicate that current educational level does not influence the choice of current professional development activities, areas, and approaches or the desire to be involved in professional development activities, areas, and approaches for the K – 12 educators in this study.

Research Question Three

Research question 3a asked, "What was the relationship between recent involvement in RSPD activities and the desire to be involved in other RSPD activities?" Research question 3b asked, "What was the relationship between recent involvement in RSPD areas and the desire to be involved in other RSPD areas?" Finally research question 3c asked, "What was the relationship between recent involvement in RSPD approaches and the desire to be involved in other RSPD approaches?" To answer these questions the same six variables created for the analysis of research question two were used (current activity, current areas, current approaches, desired activity, desired areas, and desired approaches).

Table 13 presents the results of the statistical analysis for correlation between current and desired activities, areas and approaches. The Pearson Correlation was used to determine the strength and direction of the relationship between involvement in current professional development activities and the desire to be involved in other professional development activities ($r = -.511, p < .001$) between involvement in current professional

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Table 13

Pearson Correlations and Significance (2-tailed) Levels between Current and Desired
Activities, Areas and Approaches

	Desired Activities	Desired Areas	Desired Approaches
Current Activities			
Pearson Correlation	-.511		
P (2-tailed)	<.001		
Significant	Y		
Current Areas			
Pearson Correlation		.145	
P (2-tailed)		.047	
Significant		Y	
Current Approaches			
Pearson Correlation			.168
P (2-tailed)			.022
Significant			Y

development areas and the desire to be involved in other professional development areas

($r = .145$, $p = .047$) and between involvement in current professional development

approaches and the desire to be involved in other professional development approaches (r

$= .168$, $p = .022$). The results indicate that there is a positive correlation between

involvement in professional development areas and approaches and the desire to be

involved in additional professional development areas and approaches. The results also

indicate a negative correlation between current involvement in professional development

activities and the desire to be involved in additional professional development activities.

Summary

This chapter presented the descriptive statistics for the research sample. Six

summated variables were created; current activities, current areas, current approaches,

desire activities, desired areas, and desired approaches. Multivariate Analysis of

Variance (MANOVA), Univariate Analysis of Variance (ANOVA), and Bonferroni post

hoc comparisons were conducted to determine what differences exist in the recent

involvement of K-12 educators in RSPD activities, areas, and approaches compared by

gender, years of experience as a classroom teacher, current teaching level, and current

education level and what differences exist in the desired involvement of K-12 educators

in RSPD activities, areas, and approaches compared by gender, years of experience as a

classroom teacher, current teaching level, and current education level. The Pearson

Correlation was used to determine the strength and direction of the relationship between

involvement in current professional development activities and the desire to be involved

in other professional development activities, between involvement in current professional

development areas and the desire to be involved in other professional development areas,

and between involvement in current professional development approaches and the desire

to be involved in other professional development approaches.

Chapter V presents a summary of the study, conclusions drawn from the results,

and the limitations of those conclusions. It will conclude with recommendations for

educators and researchers.

CHAPTER V

SUMMARY, FINDINGS, DISCUSSION AND CONCLUSIONS, LIMITATIONS AND RECOMMENDATIONS

This chapter contains a summary of study and the findings, discussions, and conclusions drawn from the results. In addition recommendations for the Minnesota district in the study, the study's limitations, and recommendations for further research are provided.

Summary

According to James Stigler in an interview with Willis (2002), "Today, people believe that professional development should be targeted and directly related to teachers' practice. It should be site-based and long-term. It should be ongoing - part of a teacher's workweek, not something that's tacked on" (p. 6.). Professional development is one tool that can be used to help prepare teachers for the complexity of educating today's youth. Professional development helps educators improve their knowledge of subject-specific content and expands their repertoire of instructional skills and it helps administrators learn new ways to lead and inspire (Sparks & Hirsh, n.d.).

The National Partnership for Excellence and Accountability in Teaching (1999) stated the following:

> School improvement and learner-centered professional development go hand in hand. Educational reform that makes a difference for students requires teachers and principals to respond in new ways to the need for change and to rebuild the very foundation of their thinking about teaching and learning (p. 3).

High quality research-supported professional development is one of the tools that school districts can to use in order to make a difference for students.

The purpose of this study was to investigate the degree of involvement of K-12 educators in a Minnesota district in research-supported professional development (RSPD), to determine the perceived needs for future professional development of the same K-12 educators, and to determine whether recent participation in RSPD activities, areas, and approaches impacted the K-12 educators perceived professional development needs and/or wants.

The study was limited to the K – 12 educators in a Minnesota school district. The instrument used in this study, the Professional Development Survey – Needs Assessment (see Appendix A), was developed for a school district located in Minnesota. The district that developed the survey did so as part of a professional development needs assessment as well as to partially fulfill requirements from the Minnesota Department of Education and the federal government as part of the 2001 Elementary and Secondary Education Act, No Child Left Behind (NCLB). The district elicited participation in the winter of 2004 from its K-12 teaching staff.

The instrument presented the K – 12 educators 55 questions to gather demographic information, determine their current involvement in professional development activities, areas, and approaches, and to determine their desired involvement in professional development activities, areas, and approaches. A total of 191 valid surveys were returned for a response rate of 86%. Of those who responded a majority were female (66%) and had a bachelor's degree (68%) as their current education level. The years of classroom experience varied with in the group; 0 – 3 years (5%), 3 – 9 years

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(23%), 10 to 20 years (38%), and more than 20 years teaching experience (34%). Elementary teachers comprised 46% of the K – 12 teachers with 23% middle level teachers, and 31% high school teachers.

Data gathered from the survey were analyzed using statistical methods and software. Six summated variables were created; current activities, current areas, current approaches, desired activities, desired areas, and desired approaches. The variables were created by finding the total score for each respondent by adding their individual question scores.

Multivariate Analysis of Variance (MANOVA), Univariate Analysis of Variance (ANOVA), and Bonferroni post hoc comparisons were conducted to determine the differences that existed in the recent involvement of K-12 educators in RSPD activities, areas, and approaches compared by gender, years of experience as a classroom teacher, current teaching level, and current education level and what differences exist in the desired involvement of K-12 educators in RSPD activities, areas, and approaches compared by gender, years of experience as a classroom teacher, current teaching level, and current education level. The Pearson Correlation was used to determine the strength and direction of the relationship between involvement in current professional development activities and the desire to be involved in other professional development activities, between involvement in current professional development areas and the desire to be involved in other professional development areas, and between involvement in current professional development approaches and the desire to be involved in other professional development approaches.

1a: What was the actual recent involvement of the K-12 educators in Research Supported Professional Development (RSPD) activities, areas, and approaches?

1b: What was the desired involvement of the K-12 educators in RSPD activities, areas, and approaches?

Findings Research Question 1a

The two RSPD activities that the respondents indicated they had been involved in the most during the last 12 months were immersion (92%) and mentoring (76%). The two activities that the respondents were least involved in were conferences/workshops (14%) and study groups (16%). The remaining activities ranged from 21 - 48% involvement: action research (21%), portfolios (22%), curriculum development (33%), examining student work (46%), case studies (47%), and coaching (48%).

The data from the teachers who responded to the survey indicated that 82% of the staff members were not involved in the RSPD area of addressing the needs of students with limited English proficiency. This was followed by the area of addressing the needs of students from diverse culture with 51% of the teachers indicating they were not involved. Of the teachers in the study, 28% indicated they were involved in in-depth study in the subject area of their main teaching assignment more than 16 hours during the last 12 months and 12% indicated 9 – 16 hours of involvement during the same period of time. In-depth study was the highest area in those two time categories. New methods of teaching (24%) had the highest percentage of teachers in the 5 – 8 hour time category, while encouraging parent and community involvement (40%) had the highest percentage in the 1 – 4 hour time category.

The two RSPD approaches that the largest percentage of teachers indicated that they had been involved at least once a month were common planning time (32%) and regularly scheduled collaboration with other teachers (21%). Only 3% of the teachers indicated that they had been involved 2 – 3 times a month in common planning time, 5% in regularly scheduled collaboration with other teachers, and 7% in networking with teachers outside their assigned school and individual or collaborative research on a topic of interest. Networking (28%) and regularly scheduled collaboration (23%) had the highest percentage of teachers indicating involvement multiple times a year. Networking (27%) and research on a topic of interest (26%) had the highest percentage of involvement 1 to 2 times a year.

Discussions and Conclusions Research Question 1a

There is a wide range of involvement within the ten identified professional development activities. From 16% in study groups to 92% involved in immersion. According to Susan Loucks-Horsley in an interview with Sparks (1999 a), individuals, buildings, and districts need to select RSPD strategies similar to how teachers design their lessons for their students, in a dynamic process. Professional development planners have to ask themselves what RSPD strategies are appropriate for the set of outcomes or continuous improvement goals. The district that was involved in the study, will need to determine if this wide range of involvement is due to lack of opportunities or due to alignment with the staff members, or building/district's goals.

Besides the two RSPD areas, addressing the needs of students form diverse cultural backgrounds (51%) and addressing the needs of students with limited English proficiency (82%), the remaining areas had a similar percentage of staff indicating they

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were not involved during the past 12 months; new methods of teaching (20%), in-depth study in the subject area of your main teaching assignment (25%), encouraging parent and community involvement (28%), state or district curriculum standards (33%), classroom management (34%), student performance assessment (35%), integration of educational technology in the grade of subject taught (36%), and addressing the needs of students with disabilities (38%).

The high percentage of teachers indicating they were not involved in RSPD that deals with students who are limited English proficient (LEP) appears to show a relationship to the small percentage of students who are LEP in the district. Of the students in the district, 0.11% were LEP students during the year the study was completed and for the past five years the percentage of LEP students had never exceeded this level.

The high percentage of teachers indicating they were not involved in RSPD that deals with addressing the needs of students from diverse cultural backgrounds does not appear to show a relationship to the percentage of minority students in the district. Nearly 15% of the district's students are minority students, with nearly 12% of the students being Native American.

According to the National Staff Development Council (n.d. e),

Effective educators know and demonstrate appreciation for all their students. Through their attitudes and behaviors, they establish classroom learning environments that are emotionally and physically safe and they communicate high expectations for academic achievement and quality interpersonal relationships. Professional development related to these issues is particularly important when … they are teaching students whose backgrounds are significantly different from their own (for instance, white, middle-class teachers working in schools that primarily serve students of color and/or those from low-income homes) (¶ 2).

Findings Research Question 1b

The two RSPD activities in which the largest percentage of teachers indicated they would like to be involved, even if it was on their own time, were workshops/conferences (35%) and curriculum development (21%). The two activities that the largest percentage of teachers indicated they did not want to be involved were immersion (46%) and portfolios (43%). In each of the activity categories, between 42% and 58% of the teachers indicated they would like to be involved if time was used during the contract day; immersion (42%), portfolios (44%), study groups (49%), mentoring (50%), case studies (51%), action research (52%) coaching (52%), examining student work (57%), curriculum development (58%), workshops/conferences (58%).

Integration of educational technology was the area that the highest percentage of teachers indicated they felt needed to be included in the professional development plan (72%). Addressing needs of students with limited English proficiency had they lowest percentage of teacher indicating it as a need (21%). The remaining areas; addressing needs of students from diverse cultures (51%), performance assessment (56%), addressing needs of students with disabilities (57%), classroom management (58%), encouraging parent involvement (65%), new methods of teaching (66%), and curriculum development (66%), all had more than 50% of the teachers indicating them as needs.

Regularly scheduled collaboration (88%) and common planning time (81%) were the two approaches that the highest percentage of teachers indicated needed to be in the district's professional development plan. The remain two approaches, networking outside the teachers assigned school (74%) and research on a topic of interest (61%) both had over 60% of the teachers indicating them as needs.

The results indicate that approximately one half of the K – 12 educators in the study would like to be involved in at least one of the ten RSPD activities if time was utilized during the existing contract day. According to Sparks (1999 b), a great deal has been written about using whole school design of professional development to improve student learning. With the number of educators indicating their desire to be involved in the RSPD activities, the district professional development planners have the opportunity to utilize the RSPD activities in their professional development design that will help improve student performance and align with their continuous improvement goals.

The lower percentage of K – 12 educators indicated that addressing needs of students with limited English proficiency was a need, appears to align with the small LEP population in the district (0.11%). The district will need to provide this professional development area to those staff who have LEP students in their classroom and continue to monitor the district's population to see if in the future additional professional development is needed for the entire staff in this area.

It appears from the data that a majority of the staff feels that collaboration and common planning time is necessary in the district's professional development plan. According to the National Staff Development Council (n.d. f),

> The most powerful forms of staff development occur in ongoing teams that meet on a regular basis, preferably several times a week, for the purposes of learning, joint lesson planning, and problem solving. These teams, often called learning communities or communities of practice, operate with a commitment to the norms of continuous improvement and experimentation and engage their members in improving their daily work to advance the achievement of school district and school goals for student learning (¶ 2).

With such a large majority of the K – 12 staff indicating these as a need, both of these research-supported professional development approaches should be incorporated into the district and building plans. To make these approaches as effective as they can be, the district should align the outcomes of the approaches with its continuous improvement to assist in attaining the district or building aims and goals.

Research Question Two

2a: What differences exist in the recent involvement of K-12 educators in RSPD activities, areas, and approaches compared by gender, years of experience as a classroom teacher, current teaching level, and current education level?

2b: What differences exist in the desired involvement of K-12 educators in RSPD activities, areas, and approaches compared by gender, years of experience as a classroom teacher, current teaching level, and current education level?

Findings Research Question 2a and 2b

The results of the study indicate that for the K – 12 educators in the study, gender influences current level of involvement in professional development approaches. The female educators in this study had a statistically higher involvement in RSPD approaches than the male educators.

In addition, the results of the study indicate that gender influences the desired level of involvement in professional development approaches. The female educators in this study had a statistically higher desire to be involved in RSPD approaches than the male educators.

According to Kerka (1998), there is conflicting research on career maturity for gender. Some findings report higher levels of career maturity in males and other research

indicates higher levels of career maturity in females. Career maturity is the readiness to make appropriate career decisions. Current involvement in RSPD approaches is one of many career decisions that a K-12 educator must make.

Another factor that influences involvement in professional development is the percentage of the K-12 educators that are male and female. According to the National Education Association (2004) survey,

> The number of male public school teachers now stands at a 40-year low. After two decades of decline, just 21 percent of the nation's 3 million teachers are men. Male elementary school teachers are even more scarce. According to NEA's research report, Status of the American Public School Teacher, the percentage of male elementary teachers has fallen from an all-time high of 18 percent in 1981 to an all-time low of 9 percent today. And while men represented half of secondary teachers in 1986, today they make up 35 percent (¶ 4).

Although not as low as the National Education Association (2002) survey, there was a smaller percentage of male teachers (34%) than female teachers (66%) in this study.

According to the National Education Association (2002), there are many factors that have lead to this 40 year low of male educators particularly at the elementary level. First, colleges of education historically have found it difficult to attract men. Second, is the dated notion that teaching is women's work. Third, is the salaries of teachers are low in comparison to other profession which lowers the social value and prestige of teaching. Fourth, is that teaching is not seen to be as lucrative as other professions as a way to provide for a family. Fifth, traditionally men go into teaching to teach a subject and women enter teaching to nurture and develop children which leads to the lower number of men at the elementary level.

Years of classroom experience influences involvement in current professional development activities and approaches. The K – 12 educators in this study with more

than 20 years of classroom experience had a statistically higher involvement in RSPD activities than those teachers with 3 to 9 years of experience. The educators in this study with less than 3 years of classroom experience had a statistically higher involvement in RSPD approaches than those teachers with 3 to 9 years, 10 to 20 year, and more than 20 years of experience.

In addition, years of classroom experience influences the desired involvement in professional development activities, areas, and approaches. The educators in this study with less than 3 years of classroom experience had a statistically higher desire to be involved in RSPD activities than those teachers with 10 to 20 years and those teachers with more than 20 years of experience. The educators in this study with 3 to 9 years of classroom experience had a statistically higher desire to be involved in RSPD areas and approaches than those teachers with more than 20 years of experience.

Steffy and Wolf (n.d.), Diaz-Maggioli (n.d.), and Fessler (1985) all recognize a common stage for preservice, induction, and novice teachers. During these stages, educators try to find balance and stability in their teaching. The typical teacher in these stages focuses on trying to do the best job he or she can. They focus on fine tuning skills and acquiring new information and instructional strategies that were not attained in their teacher preparation programs.

The educators in this study with less than 3 years experience fit the stage of induction or novice teacher described by Steffy and Wolf (n.d), Diaz-Maggioli (n.d) and Fessler (1985). These teachers appear to be focusing on acquiring new information and instructional strategies. This is evident in their statistically higher involvement in RSPD approaches.

Table 14

Results: Influence of Gender, Years of Classroom Experience, Current Teaching Level, and Current Educational Level on Current Activities, Areas and Approaches

Variables	Influences Involvement			
	Gender	Years of Classroom Experience	Current Teaching Level	Current Educational Level
Current Activities	N	Y	N	N
Current Areas	N	N	N	N
Current Approaches	Y	Y	Y	N

(Y = Significant at the .05 level   N = Not Significant at the .05 level)

Table 15

Results: Influence of Gender, Years of Classroom Experience, Current Teaching Level, and Current Educational Level on Desired Activities, Areas and Approaches

Variables	Influences Involvement			
	Gender	Years of Classroom Experience	Current Teaching Level	Current Educational Level
Current Activities	N	Y	Y	N
Current Areas	N	Y	Y	N
Current Approaches	Y	Y	Y	N

(Y = Significant at the .05 level   N = Not Significant at the .05 level)

Current teaching level influences involvement in current professional development approaches. The educators in this study at the middle level had a statistically higher involvement in RSPD approaches than teachers at the elementary or

the high school. The elementary educators had a statistically higher involvement in RSPD approaches than teachers at the high school.

Current teaching level also influences the desired activities, areas, and approaches. The middle level educators had a statistically higher desire to be involved in RSPD activities than teachers at the elementary or the high school, a statistically higher desire to be involved in RSPD areas than teachers at the high school and, a statistically higher desire to be involved in RSPD approaches than teachers at the high school. Elementary educators had a statistically higher desire to be involvement in RSPD approaches than teachers at the high school.

In this study, the current educational level did not influence the choice of current professional development activities, areas, or approaches or the desire to be involved in professional development activities, areas, or approaches. Table 14 and Table 15 present the results.

Discussion and Conclusions Research Question 2a and 2b

According to Kerka (1998), the research on gender and its impact on career maturity, the readiness to make appropriate career decisions, is mixed. For this reason, the district should first determine its continuous improvement aims and goals and then utilize the data from the Professional Development Survey – Needs Assessment by gender to determine which RSPD to present to its staff.

The district should utilize the research of Steffy and Wolf (n.d.), Diaz-Maggioli (n.d.), and Fessler (1985) and plan for the unique needs of the preservice, induction, and novice teachers. The data from the study indicate that teachers with less than 3 years of teaching experience are currently more involved in RSPD. Staff who are in these stages

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will continue to need an increased opportunity to acquire new skills and instructional

practices. At the same time, the district will need to assess the areas that need

improvement in the district and provide RSPD for all staff regardless of their career

stage.

The National Staff Development Council (n.d. c), comments that life stages or

career stages may affect a teacher's availability and interest in additional work during

different phases of their work career. Although this may be true, career stages should not

alter the expectations for performance and high academic achievement. As the district is

planning its professional development, it should take into consideration the differences in

its staff attitudes for RSPD activities, but if a particular activity is called for due to an

area of concern discovered through continuous improvement, the district should still

present the RSPD. If this is the case, the district will need to prepare those who may not

desire the RSPD activity that the activity will take place.

It appears from the data that the middle level has a high desire to be involved in

RSPD activities. These activities should be incorporated into the middle school's

professional development plan.

Sparks (1994) states,

> While district wide awareness and skill building programs sometimes have their
> place, more attention today is being directed at helping schools meet their
> improvement goals. Schools set their goals to assist the school system in
> achieving its long-term objectives and to address challenges unique to their
> students' needs (¶ 18).

By embedding the professional development RSPD activities into their

continuous improvement plan, the middle level and all levels will assist teachers to learn

new skills, assist students to pursuit of high academic levels, and help the district achieve its vision, mission, aims, and goals.

Current involvement in professional development areas was not influenced by gender, years of classroom experience, current teaching level, or current education level for the K – 12 educators in the study. This will be important for curriculum planners in the district and at the building level to know as they continue to develop professional development plans that attempt to assist in reaching the district and building's aims and goals.

Research Question Three

3a: What was the relationship between recent involvement in RSPD activities and the desire to be involved in other RSPD activities?

3b: What was the relationship between recent involvement in RSPD areas and the desire to be involved in other RSPD areas?

3c: What was the relationship between recent involvement in RSPD approaches and the desire to be involved in other RSPD approaches?

Findings Research Question 3a, 3b, and 3c

The results of the study indicate that for the K – 12 educators in the study there is a negative correlation between current involvement in professional development activities and the desire to be involved in additional professional development activities. In addition, the results of the study indicate that for the K – 12 educators in the study there is a positive correlation between involvement in RSPD areas and the desire to be involved in additional RSPD areas. Finally, the results of the study indicate that for the K – 12 educators in the study there is a positive correlation between involvement in

professional development approaches and the desire to be involved in additional

professional development approaches.

Discussion and Conclusions Research Question 3a, 3b, and 3c

The negative correlation between current involvement in professional

development activities and the desire to be involved in additional professional

development activities could be explained by the fact that those educators heavily

involved in professional development activities may not have additional time to be

involved in more professional development activities, that staff desire additional time to

test the impact of current professional development practices before being involved in

additional activates, or some other unknown reason. This negative correlation could have

an impact on the professional development planners. Without knowing that this negative

correlation exists, and why it exists, incorrect assumptions could be made if attendance of

staff at RSPD activities that are not a district requirement was used as one part of an

evaluation.

The positive correlation between involvement in RSPD areas and the desire to be

involved in additional RSPD areas and the positive correlation between involvement in

professional development approaches and the desire to be involved in additional

professional development approaches should be used by the district professional

development planners. If staff are involved in RSPD areas and approaches and that leads

to a desire for more RSPD areas and approaches, the district should incorporate as many

RSPD areas in their professional development plan as they can. As long as the planners

keep the district's vision, mission, aims, and goals as a filter for the RSPD areas.

According to Hirsh (2004),

> Professional development planning focuses attention on how the system as a whole and individuals must change to achieve the district's goals. Rather than being outlined in its own plan, comprehensive professional development becomes a compilation of plans, each supporting different district and/or school priorities. These individual plans are most effective when they attend to what we know about effective professional learning and ensure that staff development is results-driven, standards-based, and focused on educators' daily work (¶ 4).

This data from this study will assist the Minnesota district that provided the data from the Professional Development Survey – Needs Assessment to develop a comprehensive professional development plan.

Recommendations for the Minnesota District in the Study

As the district utilizes the data as part of their continuous improvement efforts and as part of the state and federal required needs assessment, the types of activities in which the K – 12 educators were involved will need to be compared to the district and buildings aims and goals to ensure that the type of professional development that is being made available and utilized is the type of professional development that will assist in meeting the goals.

The central administration should facilitate a review of student learning and perception data with the building principals to determine if progress is being made toward the district's aims and goals. This analysis should include disaggregating the data into the categories required under No Child Left Behind. The categories are all students, White/non-Hispanic, American Indian/Alaskan Native, Asian/Pacific Islander, Black/non-Hispanic, Hispanic, limited English proficient, special education, and students who are eligible for free/reduced lunch. This process should be replicated at each

building. The building principals should facilitate the analysis of their buildings' student learning, perception, and professional development data with their staff.

If progress is being made toward the district and building goals, similar professional development should be made available to the staff and the district's central administration should share the results with the district's professional development planning team and school board. If progress is not being made, the central administration should collect additional data from its staff in the form of surveys and/or focus groups to determine what specific professional development is needed to refocus the training being made available and to positively impact student performance and student, parent, and staff perceptions. This additional data should then be shared with the district's professional development planning team to be used to modify the district's professional development plan. The modified plan should then be presented to the school board.

The central administration and building principals will need to continually monitor the number of students who are LEP and if the percentage of students would increase, professional development in the area of addressing the needs of students with limited English proficiency would need to be addressed at the district level. For the current year, and until the trend changes, the district and buildings should offer professional development in the area of addressing the needs of students with limited English proficiency for the few staff who may have LEP students in their classroom.

It appears that the district's professional development planning team will need to reassess its professional development offerings in the area of addressing the needs of students from diverse cultural backgrounds to align with the percentage of students from varied cultural backgrounds. During the 2003-2004 school year, the district's student

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population was comprised of 85.6% Caucasian students, 11.6% Native American students and 2.7% children of color. In the study, 81% of the respondents indicated that they were minimally involved in professional development in the area of addressing the needs of students from diverse cultural backgrounds (51% not involved and 30% involved for 1 – 4 hours). With 14.3% of the student population being from diverse cultural backgrounds, it appears additional professional development in this area is needed.

The central administration and the professional development planning team will need to analyze additional data (student learning data, state and other norm reference assessments, district required assessments, and classroom assessments and perception data from students, parents, staff, and community) to assess if additional professional development in this area is necessary. If it is determined that there is a gap between the student performance of the Caucasian students and the non-Caucasian students, the central administration and the professional development planning team should develop and conduct professional development to close the gap. If it is determined that there are negative perceptions on the part of the students, parents or staff in the area of addressing the needs of students from diverse cultural backgrounds, the central administration and the professional development planning team should develop and conduct professional development to address the need.

With the desire to be involved in at least one of the RSPD activities being somewhat similar, the central administration and the building principals should look to other sources of data (student learning and perception data) to determine which professional development activities align with their current vision, mission, aims, and

goals and then design and implement a system that incorporates the RSPD activities that best align.

Reflection on the data indicated that 72% of the staff felt that the integration of education technology was needed in the district's professional development plan. According to Milton Chen in an interview with Vojtek and O'Brien-Vojtek (1999), technology is a tool that can be utilized to accelerate learning. As the district plans future staff development, it should determine how the integration of technology can help achieve the district and building's aims and goals of improving student performance. The district's technology committee should investigate the hardware and/or software that is available to assist in achieving the goals. In addition, the district's technology committee and the central administration should analyze the district's technology budget to ensure the expenditures align with the district's desired outcomes. The district's technology committee should work with the district's professional development planning team and central administration to plan and implement professional development that integrates existing district technology or any new technology that is acquired.

The district should continue to offer a wealth of RSPD for its induction and novice staff to assist them in acquiring needed skills and strategies. At the same time, the central administration and building principals will need to go beyond offering RSPD for this purpose only and design a plan for all staff regardless of their career stage that addresses the district's continuous improvement aims and goals.

To determine why a negative correlation between current involvement in professional development activities and the desire to be involved in additional professional development activities exists, the central administration and the professional

development planning team should gather additional information from district staff. This data should be acquired by conducting focus group discussions with staff members representing each of the district's buildings. This will allow the acquisition of the needed data, and allow staff a more open ended process to share their thoughts on the district's professional development plan. Once this has taken place, the central administration and the professional development planning team should utilize the data to modify its professional development plan to eliminate or to take into consideration the detractors that impact the desire to be involved in additional professional development activities. The modified plan should be shared with the school board.

Based on the positive correlation between involvement in RSPD areas and the desire to be involved in additional RSPD areas and the positive correlation between involvement in professional development approaches and the desire to be involved in additional professional development approaches, the district should strive to offer numerous RSPD that align with its aims and goals to assist in increasing student achievement and to kindle the desire to be involved in additional RSPD.

Limitations

The RSPD activities, areas, and approaches in this study were limited to those measured by the Professional Development Survey – Needs Assessment. The survey may not have addressed all the activities, areas and approaches for professional development in the district. The instrument did not include questions that inquired about the reasons why the K-12 educators indicated involvement or desired involvement in RSPD activities, areas, and approaches. This limited the interpretation of the results. When creating the instrument, faculty were not involved in creating or selecting the

questions for the survey. Finally, the demographic category, main assignment, which asked the respondents to indicate their main content area teaching assignment for the majority of the day, was not utilized for analysis due to the small numbers of respondents in each of the categories.

<p style="text-align:center">Recommendations for Further Research</p>

A recommendation for further study would be to duplicate the study with other districts both rural and urban in the state of Minnesota or in the region to determine if similar results would be achieved. This study could be done as part of the state required needs assessment. The results from this extended study could then be utilized by professional development planners at state level as well as the local level.

A second recommendation would be to conduct a study that would ask respondents to indicate why they were involved or desired to be involved in RSPD activities, areas, and approaches. The analysis of this data would determine the motivators for RSPD activities, areas, and approaches.

A third recommendation would be to conduct a study that would ask respondents to indicate why they were not involved or did not desire to be involved in the RSPD activities, areas, and approaches. The analysis of this data would determine the detractors for RSPD activities, areas, and approaches. The analysis of the data would also help to further analyze the negative correlation between current involvement in professional development activities and the desire to be involved in additional professional development activities found in this study.

APPENDIX A
PROFESSIONAL DEVELOPMENT SURVEY – NEEDS ASSESSMENT

Professional Development Survey - Needs Assessment

Page One

1. Gender: ○ Female ○ Male

2. Years of experience as a classroom teacher?:
○ Less than 3 years
○ 3 to 9 years
○ 10 to 20 years
○ More than 20

3. Current Teaching Level (Choose one - majority of your day):
○ Elementary
○ Middle Level
○ High School

4. Main Assignment (Choose one - majority of your day):
○ Agriculture
○ Art
○ Business
○ Counselor
○ English
○ Elementary Ed.
○ Health
○ Industrial Tech.
○ Mathematics
○ Media Specialist
○ Music
○ Technology
○ Physical Education
○ Social Studies
○ Science
○ Special Education
○ Title One or AOM
○ World Languages
○ Other (please list):

5. Current Education Level (Choose one):
○ Bachelors Degree
○ Masters Degree
○ Specialist Degree
○ Doctorate Degree

In which of the following professional development *activities* have you been involved during the last 12 months?

	Yes	No
6. Action Research: Educators raise questions about ways to improve teaching, study literature, implement best approach and analyze results.	○	○
7. Case Studies: Educators examine carefully chosen, real-world examples of teaching and discuss/reflect on instructional practice.	○	○
8. Coaching: Educators observe each other, plan together, and talk to encourage each other while reflecting on improving instructional practice.	○	○
9. Curriculum Development: Educators take part in the research and development of curriculum to be utilized in the classroom.	○	○
10. Examing Student Work: Educators conduct structured conversations about student work and analyze the impact of teachers' actions.	○	○
11. Immersion: Educators become involved in internships to gain first hand experience in a content area.	○	○
12. Mentoring: Educators pair experience teachers with teachers with less experience.	○	○
13. Portfolios: Educators gather educational artifacts over time that become the basis for conversations, reflections, and possible evaluation.	○	○
14. Study Groups: Educators meet to read/discuss educational literature or learn new strategies over the course of numerous sessions.	○	○
15. Workshops/Conferences: Educational seminars or series of meetings emphasizing the exchange of educational information.	○	○

In which of the following professional development *areas* have you been involved during the last 12 months? (If yes, indicate the approximate time you were involved in the activity. Choose one answer per question.)

	No, not involved	Yes 0 - 4 Hours	Yes 5 - 8 Hours	Yes 9 - 16 hrs.	Yes more than 16 hrs.
16. In depth study in the subject area of your main teaching assignment.	○	○	○	○	○
17. State or district curriculum and standards.	○	○	○	○	○
18. Integration of educational technology in the grade or subject you teach.	○	○	○	○	○
19. Student performance assessment (e.g., methods of testing, applying results to modify instruction).	○	○	○	○	○
20. Classroom management, including student discipline.	○	○	○	○	○
21. Addressing the needs of students from diverse cultural backgrounds.	○	○	○	○	○
22. Addressing the needs of students with limited English proficiency.	○	○	○	○	○
23. Addressing the needs of students with disabilities.	○	○	○	○	○
24. Encouraging parent and community involvement.	○	○	○	○	○
25. New methods of teaching (e.g., cooperative learning, guided reading, six-trait writing).	○	○	○	○	○

In which of the following professional development *approaches* have you been involved during the last 12 months? (If yes, indicate the approximate number of times you were involved in the activity. Choose one answer per question.)

	No, not involved	Yes, once or twice a year	Yes, multiple times a year	Yes, once a month	Yes, two or three times a month	Yes, at least once a week
26. Common planning period for a team of teachers.	○	○	○	○	○	○
27. Networking with teachers outside your assigned school.	○	○	○	○	○	○
28. Regularly scheduled collaboration with other teachers.	○	○	○	○	○	○
29. Individual or collaborative research on a topic of interest to you professionally.	○	○	○	○	○	○

MARKING INSTRUCTIONS
- Use a No. 2 pencil only.
- Do not use ink, ball point, or felt tip pens.
- Make solid marks that fill the circle completely.
- Erase cleanly any marks you wish to change.

Please continue and complete page two.

In which of the following professional development *activities* would you like to be involved during the next 12 months? (Mark all that apply - you may mark one or two ovals for each activity.)

	No, I would not like to be involved.	Yes, if time was used during the existing contract day.	Yes, even on my own time.
30. Action Research: Educators raise questions about ways to improve teaching, study literature, implement best approach and analyze results.	◯	◯	◯
31. Case Studies: Educators examine carefully chosen, real-world examples of teaching and discuss/reflect on instructional practice.	◯	◯	◯
32. Coaching: Educators observe each other, plan together, and talk to encourage each other while reflecting on improving instructional practice.	◯	◯	◯
33. Curriculum Development: Educators take part in the research and development of curriculum to be utilized in the classroom.	◯	◯	◯
34. Examing Student Work: Educators conduct structured conversations about student work and analyze the impact of teachers' actions.	◯	◯	◯
35. Immersion: Educators become involved in internships to gain first hand experience in a content area.	◯	◯	◯
36. Mentoring: Educators pair experience teachers with teachers with less experience.	◯	◯	◯
37. Portfolios: Educators gather educational artifacts over time that become the basis for conversations, reflections, and possible evaluation.	◯	◯	◯
38. Study Groups: Educators meet to read/discuss educational literature or learn new strategies over the course of numerous sessions.	◯	◯	◯
39. Workshops/Conferences: Educational seminars or series of meetings emphasizing the exchange of educational information.	◯	◯	◯

Which of the following professional development *areas* do you feel need to be included in your district's professional development plan during the next 12 months?

	No, not needed	Yes, needed
40. In depth study in the subject area of your main teaching assignment.	◯	◯
41. State or district curriculum and standards.	◯	◯
42. Integration of educational technology in the grade or subject you teach.	◯	◯
43. Student performance assessment (e.g., methods of testing, applying results to modify instruction).	◯	◯
44. Classroom management, including student discipline.	◯	◯
45. Addressing the needs of students from diverse cultural backgrounds.	◯	◯
46. Addressing the needs of students with limited English proficiency.	◯	◯
47. Addressing the needs of students with disabilities.	◯	◯
48. Encouraging parent and community involvement.	◯	◯
49. New methods of teaching (e.g., cooperative learning, guided reading, six-trait writing). (please list).	◯	◯

Which of the following professional development *approaches* do you feel need to be included in your district's professional development plan during the next 12 months?

	No, not needed	Yes, needed
50. Common planning period for a team of teachers.	◯	◯
51. Networking with teachers outside your assigned school.	◯	◯
52. Regularly scheduled collaboration with other teachers.	◯	◯
53. Individual or collaborative research on a topic of interest to you professionally.	◯	◯

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APPENDIX B
PERMISSION TO UTILIZE THE DATA FROM THE SURVEY

Detroit Lakes Public Schools

LOWELL NIKLAUS
Superintendent

RICHARD J. LUNDEEN
Business Manager

ROBERT T. GROSZ
Assistant Superintendent

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LUANN PORTER, Treasurer
RUTH SOLIE, Clerk
DR. THOMAS SEAWORTH, Director
DEANNA SINCLAIR, Director

March 3, 2004

University of North Dakota
Institutional Review Board

To Whom it May Concern;

This is to serve as a letter of support and permission for Robert T. Grosz to utilize pre-existing data from the Detroit Lakes Public School's Professional Development Needs Assessment as part of his research project and dissertation.

It is understood that the data does not include identifiers that link the data to the subjects.

The Detroit Lakes Public School's Professional Development Needs Assessment was conducted as part of the district's professional development plan.

Lowell Niklaus,
Superintendent, Detroit Lakes Public Schools

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