

TEACHERS' PERSPECTIVES ON A SELF-DIRECTED STAFF DEVELOPMENT
PROGRAM BASED UPON PRINCIPLES OF ACTION RESEARCH

by

VICKI ROBINSON HUSBY

(Under the direction of Dr. Jo Blase and Dr. Joe Blase)

ABSTRACT

The purpose of this study was to explore the perspectives of teachers participating in a self-directed staff development program based upon principles of action research. A grounded theory approach was used to determine the perspectives, i.e., the meanings, that teachers attributed to their involvement in the staff development program. Data collection was guided by the theoretical framework of symbolic interactionism, and sources of data included journal responses composed by the teachers, participant interviews, audiotape recordings of staff development sessions, learning plans completed by the teachers, and researcher observation and notes. In addition, the Self-Directed Learning Readiness Scale was administered as a pre- and post-assessment of participants' self-directed learning readiness. Comparative analysis was employed to develop and interrelate descriptive categories that explained teachers' perspectives of the program.

Study findings indicate that teachers' perspectives included 3 primary categories: intrapersonal, academic, and social. The intrapersonal category illuminated the teachers' pervasive desire to view themselves positively as well as to have others view them positively. The academic category chronicled teachers' learning within the staff

development program. The social category encompassed the teachers' interactions with other participants and the researcher. Teachers were impacted intrapersonally by their academic and social experiences. Other findings included improvement in group readiness for self-directed learning and benefits unique to this staff development program.

INDEX WORDS: Self-directed learning, Action research, Staff development, Professional development, Adult learning theory

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DEDICATION

There are some moments in your life, like a lazy, southern, summer twilight, that feel pleasant when you experience them, but do not seem unusually extraordinary at the time. I remember working as a waitress in a Morrison Cafeteria in Birmingham, Alabama, when I first saw him. Tall and slender, he strode across the dining room with his tray, my eyes drawn to his sun-kissed face and reddish-blond hair. While he did not say anything, his demeanor indicated a strong, principled man, but yet a gentle man. I thought he was beautiful.

A few weeks later at a twenties-something hangout, I recognized him. We talked, and across the summer we developed a friendship through impromptu encounters. Eventually we exchanged phone numbers; we kept up with one another by way of intermittent calls. He was a co-op student, and in August he moved back to Mobile to resume his coursework. Finally, a year and a half later we had our first date.

Barry Richard Husby became my confidant, my rock, my greatest cheerleader, and most importantly, an infinite source of unconditional love. After three-and-a-half years of long-distance dating, we managed to make our way to the altar.

When I met Barry, I was working a couple of different menial positions and trying to complete a bachelor's degree. I was insecure, timid, and afraid to even dream of grand goals, much less pursue one. In the five-and-a-half years we have been married, because of his almost enigmatic role in my life, I have become confident, self-assured, and fearless in pursuit of even my most lofty goals. And because of his ever-present

support and love, I have exceeded every expectation I set for myself. For the very fact that he has selflessly encouraged me to be all that I now am, this work is dedicated to him. He is as much a creator of it as I am.

At the close of this chapter in our lives, I stand in front of Barry with a few simple promises. While some of them may seem trite or comical, he will understand the inherent implication of each one. So, Barry, to you I promise

to stop and smell the roses—on a path that does not lead to another degree,
to cook something that does not have directions on the side of a box,
to learn to play Quake sufficiently enough so that beating me will be fun for you,
to write something that makes money instead of costs money,
and finally, to be the wife to you I have wanted to be all along.

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A few years ago, a friend gave me a handful of polished, tinted, shiny stones as a visual reminder of all the blessings God has bestowed upon me. They rest upon a windowsill and each day, with a sparkle, reflect the morning sunlight. The following are counted among my stones:

To Dr. Jo Blase: Thank you for recognizing the potential in me and drawing me to this path. Without this experience, and your support through it, I would never have learned how sweet are the rewards of harnessing inspiration with solid, scholarly work. I seek to emulate you in so many ways.

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To my parents and Barry's parents: Thank you for making me feel loved whether I finished the journey or not. The pride I knew you felt in me was a constant motivator to keep working. Mama, you can stop worrying now, I am going to take some time off for fun!

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kindness to me when I was fatigued, stressed, and struggling to make it on my own.

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CHAPTER 1

INTRODUCTION

Statement of the Problem

Despite definitions of staff development as ongoing individual growth in the context of one's professional role, the typical staff development program for teachers has frequently been composed of lectures or demonstrations and almost never incorporated personalized instruction addressing specific teachers' needs (National Staff Development Council, 1994; Deojay & Pennington, 2000). The National Staff Development Council (1994) stated that staff development addresses continual development of new skills, is ongoing, is interwoven into the participant's role, and requires time to be fully assimilated. In addition, the Council stated that "new practices should be protected and nurtured" (p. 7) through methods such as study groups, peer coaching, action research, and mentoring. Further, Hord, Rutherford, Huling-Austin, and Hall (1987) suggested that staff development is an evolving process, not simply an event that occurs. Contrary to these definitions, though, staff development in practice has historically consisted of one-day workshops designed around a district goal and has rarely been implemented in classrooms (Collinson, 2000; Black, 1998).

Research findings and adult learning theory suggest that not only is staff development an important component in teachers' job satisfaction, but that teachers' input into the assessment of their needs and planning of their learning is essential (Knowles, Holton, & Swanson, 1998; MacMillan, 1999). For example, in a review of the

literature on teachers' job satisfaction, MacMillan found that teachers who are satisfied feel positively about what they know and the impact they have on the education of their students, and they note the importance of continuing professional development in nurturing their positive self-concept. In a study of the perceptions of 809 teachers, Blase and Blase (1998) found that "good principals" used the staff development program to encourage innovation in instruction, and teacher input into content and design of the staff development program increased its value. Elder (1994) found teachers felt a sense of professionalism when empowered to impact, among other areas, staff development. Interestingly, the National Center for Education Statistics (1998) reported approximately 30% of teachers in the nation perceive teachers as having an influence over, or input into, in-service training, while approximately 70% of principals in the nation perceive teachers as having an influence over in-service training (National Center for Education Statistics, 1998).

In a study of teachers' personal evaluation of their professional growth, Corabi (1995) identified several factors that supported professional growth and the strengthening of professional skills. Among those factors, it was noted teachers were more motivated when permitted to self-direct learning activities. Additionally, teachers indicated their learning was meaningful and identified specific skills they acquired when learning within a self-directed environment. Rossi's (1989) study of the relationship between teachers' philosophies and observed behaviors supported the use of self-directed, ongoing learning to address teachers' cognitive, philosophical, and affective needs. Furthermore, Harrison (1989) recommended self-directed learning as an option for reducing the discrepancy between educators' competencies and those required for their jobs.

Candy (1991) characterized self-directed learning as the moral, emotional and intellectual autonomy of the learner. He added that the learner is self-managing in that he accepts responsibility for management of learning. In a time when demands upon teachers for increased documentation and accountability of professional learning and performance are at the fore (e.g., Official Code 20-2-200 G, 2001; Georgia State Board of Education Rule 160-5-.22, 2000; Georgia Professional Standards Commission Teacher Certification Rules 505-2-.08, 2001; 505-2-.10, 2000; 505-2-.13, 2000), meeting the challenge of addressing individual teachers' needs for self-direction in a staff development program is difficult for staff developers. One solution is to combine self-directed learning with action research, another teacher-directed framework that by design incorporates evaluation of learning. Calhoun (1994) described action research as investigation into the effectiveness of instructional practices and programs, and Jacobson (1998) noted action research is becoming increasingly acceptable as a staff development option. Because self-directed learning and action research are compatible in their objectives and address different needs of adult learners, it seems logical to superimpose their processes upon one another to create a staff development program that maximally utilizes the benefits of each program. Unlike other successful staff development methods, such as peer coaching, study groups, or mentoring, a self-directed learning and action research staff development program can be conducted independently outside traditional school hours.

Action research as described by Calhoun (1994) and self-directed learning as advocated by Knowles (1975; Knowles et al., 1998; Long on Knowles, 1993) share several common characteristics. Both draw on the benefits of addressing learning within

a group while permitting individualized pursuits. Each provides adults an opportunity to pursue learning consistent with their specific needs and interests. Each is problem or life based, an important need for adults. Unlike pure self-directed learning, though, action research inherently provides for evaluation of learning. The benefit of utilizing principles action research within self-directed learning in staff development, as opposed to utilizing pure action research, is that opportunities for learning are available in formats other than simply a research design. By combining action research with self-directed methods, individual needs and preferences of teachers can be met while institutional demands for accountability can be addressed.

Teacher experiences with self-directed development (Corabi, 1995; Craft-Tripp, 1993; Duron, 1994) and teacher experiences with action research have been studied (Auger & Wideman, 2000; Feldman, 1998; Poetter, McKamey, Ritter, & Tisdell, 1999; Robertson, 2000; Vulliamy, 1991), but use of the combined frameworks has not been explored. The purpose of this study was to explore how teachers experienced a self-directed staff development program based upon action research. By implementing the program and gathering data on teachers' perceptions while participating in the program, we were able to answer the question, "What are the perspectives of teachers participating in a self-directed staff development program that incorporates principles of an action research?"

Purpose of the Study

The purpose of this study was to describe the perspectives, i.e., the thoughts, feelings, and actions, of teachers participating in a self-directed staff development program based upon principles of action research. Knowles (Knowles et al., 1998) noted

that each adult learner's needs and situations differ, and therefore adults are best served when the learning is adapted to their "uniqueness" and situational needs. He proposed self-directed learning as the context in which to meet the needs of adult learners. Rossi's (1989) work supported use of research and ongoing, process- and strategy-oriented, self-directed learning to address the cognitive, philosophical, and affective needs of teachers. Institutional demands for accountability can be addressed within the principles of action research through identification of growth areas and use of data to measure outcomes (Calhoun, 1994). Through study of teachers' perspectives of a staff development program comprised of the combined frameworks, a deficit in the professional literature was addressed and further progress was made in addressing teachers' needs as educators and adult learners.

Background of the Study

Adult learning theory holds that adults' learning is different from that of children's learning (Knowles et al., 1998). Adult learners have a need to know the "what, how, and why" of learning. Their self-concept must be one of an autonomous, self-directing learner. Prior experience must be used as a resource and understood to contribute to the learner's "mental mode." Readiness to learn is life related and based upon developmental tasks. Adult learners' orientation to learning is problem centered and contextual. And motivation to learn is intrinsic and incorporates a personal benefit. Tough determined that not only do adults do a great deal of learning outside formal learning environments, but the vast majority of that learning is self-planned (Nelms, 1993).

Self-directed learning within a socially engaging context, as opposed to programmed instruction in a socially isolating context, focuses on the psychological needs of learners, incorporates more learner input and involves others in some manner (Long, 1993). Bonham (1992) summarized Tough in noting learning within their own pace and style, in flexible ways, and in their own structure as reasons adults selected to learn on their own. He added that learners motivated by intrinsic goals and concerned with integrating learning for personal reasons become more deeply and personally engaged in learning experiences. Knowles (Knowles et al., 1998) posited that an adult's internal desires, such as the need for esteem, desire to achieve or urge to grow, are the actual motivation for learning.

Self-directed learning incorporates all the tenets of adult learning theory described by Knowles and Tough (Bonham, 1992; Knowles et al., 1998). Within the method, the learner identifies his specific needs in relation to his individual duties, facilitates his own learning, capitalizes upon his prior knowledge and experience, proceeds at his own pace as he is ready to progress to higher levels of learning, and responds conveniently to internal and external motivations (Knowles et al.). Tough claimed adult educators must facilitate learning experiences that reflect adult development and incorporate self-directed learning projects (Kasworm, 1992). He remarked, though, that in incorporating self-directed learning projects into adult development programs, staff developers must rethink evaluation and assessment methods.

Interestingly, through some self-directed methods, teachers naturally assessed their learning and adjusted their practice in response. Crist (1985) examined the effects of teacher self-assessment on the instructional behaviors of teachers, and he found teacher

self-assessment to be effective in bringing about instructional improvements for teachers. Similarly, in another study, teacher-mentors involved in action research were found to share ideas more often, have an increase in potential for growth, experience deeper professional dialogue, and engage in self-analysis more intensely (Poetter et al., 1999). Further, the National Center for Education Statistics (1999) reported that as a matter of practice, 53% of teachers in the nation conduct individual or collaborative research on a topic of professional interest. For teachers, the principles of action research provides a method of looking at what is happening in a classroom, deciding if it can be made better, determining how changes should occur, studying the effects of changes, and then repeating the process (Calhoun, 1994). Two thirds of those conducting research do so from two to three times a month up to once a week (National Center for Education Statistics, 1999). All respondents felt that participating in the activity improved their teaching.

Unlike some methods of professional development, in which teachers tend to self-assess their growth, action research provides assessment by design. The benefits of utilizing principles of action research within self-directed learning in staff development are several. The principles of action research inherently provide a method for evaluation of learning and application of learning, addressing directives for accountability mandated by state and district level staff development officials. By utilizing the framework for action research, as opposed to conducting purely action research, opportunities for learning are available in formats other than research, such as academic pursuit of a topic of professional interest. Summarizing Tough, Kasworm (1992) noted a planner, in this case the action research framework, aids the adult learner to facilitate a self-directed

learning project, and in the staff development program guided teachers to improve classroom practice, while providing for assessment of growth without forcing data-driven research.

Through the self-directed staff development program incorporating principles of action research, nine criteria for meeting adults' needs were addressed (Knowles et al., 1998; American Society for Training and Development, 1988; J. Blase, 2000). In the program, interests and growth areas were identified by the participant, and development of a focus area was directed toward addressing the individual's specific role and responsibilities within the context of school goals (Calhoun, 1994; J. Blase, 2000; American Society for Training and Development, 1988; Sparks & Hirsch, 1997). The participant was provided the choice of determining the method in which they would learn, whether through observations, critical study of professional literature, attending conferences, or some other format (Glatthorn, 1994; Mentoring Leadership & Resource Network, 1998). Through the research-based framework, the participant designed a program and generated a timeline for development in the focus area (Calhoun, 1994; Joyce, Weil, & Calhoun, 2000). The staff development program allowed for immediate application of information and fluid adaptation of procedures and content in response to changing learner needs (Hord et al, 1987; Educational Resources Information Center, 1986). Responsibility for measurement of growth and achievement rested with the individual, while responsibility for coordinating reflection rested with the researcher (Mezirow, 2000). The researcher facilitated the staff development program, was responsible for planning meetings and activities, and guided adult learners in developing

the skill set to pursue self-directed learning in a professional context as prescribed in the works of Calhoun (1994) and Knowles (1975).

The self-directed staff development program was offered as a staff development option at the local school level in a Georgia public school in Gwinnett County. Although participants had the responsibility of determining the specific timeframe of their individualized program, all activities were to be completed within the eight sessions the program was conducted. Staff development credit was awarded based upon attendance at class meetings and completion of self-directed learning projects. The staff development program is described in detail in chapter 3.

Research Questions

The broad question investigated in this study was: What are teachers' perspectives of a self-directed staff development program that utilizes principles of action research? The researcher specifically studied what beliefs teachers formed and what meanings they assigned to the physical, mental, and emotional experiences they encountered. Further, she examined meanings they assigned to the staff development program

This study explored how teachers experienced a self-directed staff development program utilizing principles of action research; the quality of completed learning projects and observed transfer of learning to the classroom were not studied. Teachers' readiness to participate in self-directed learning, as indicated by Guglielmino's (2001a) Self-Directed Learning Readiness Scale (SDLRS), was investigated in relation to teachers' perceptions of the staff development program.

Theoretical Significance

The results of this study contribute to the knowledge base in use of self-directed learning utilizing principles of action research as a staff development option for teachers, in addition to the independent fields of self-directed learning and action research. While teacher experiences with self-directed development and teacher experiences with action research have been studied, use of the combined frameworks as a staff development option for teachers has not been explored. The findings of this study are unique in addressing this deficit of study in the professional literature. As well, new understandings of the benefits and drawbacks of employing this combined framework as a form of staff development for teachers are now available to researchers and staff developers. Findings may be used to design additional individualized staff development options consistent with adult learning theory that provide for teachers' professional growth, job-embedded learning, and institutional accountability.

Theoretical Framework

Symbolic interactionism is the theoretical framework that guided collection, analysis, and presentation of data in this study, and upon which the study was designed. Symbolic interactionism represents a framework for studying conduct of humans and their interaction with things that have meaning for them (Blumer, 1969). Blumer stated that symbolic interactionism is based upon three premises: a person acts upon things based on the meanings those things have for the person; the meanings of things derive from social interactions between the person and other people; and as a person interacts with things, he or she interprets and modifies meanings of those things. Because this research was focused upon teachers' perceptions, or the meaning the self-directed staff

development program had for them, symbolic interactionism was an appropriate theoretical framework.

Definition of Terms

Within the discussion of this study, the following terms will be understood to represent the meanings that accompany them.

Action research: Action research is the investigation, by educators, into the effectiveness of instructional practices and programs within their school (Calhoun, 1994).

Job-embedded learning: Learning that is directly incorporated into an educator's professional role (Sparks & Hirsch, 1997).

Learning project: A project the learner self-selects, creates, conducts, and evaluates with the purpose of furthering knowledge in a specific area (Kasworm, 1992).

Mandates: Requirements supported by law and enforced by agencies of authority.

Perspective: A first person viewpoint that includes how individuals see "themselves, their understandings, their practices, and the settings in which" (Kemmis and McTaggart, 2000, p. 590) they are present. These viewpoints are represented in the first person and are "shaped by the values, intentions, and the judgments" (p. 576).

Professional development: Glickman, Gordon, and Ross-Gordon (1998) defined professional development as "virtually any experience that enlarges a teacher's knowledge, appreciation, skills, and understanding of his work" (p. 347).

Self-directed learning: Candy (1991) characterized self-directed learning as the moral, emotional, and intellectual autonomy of the learner. He added that the learner is

self-managing in that he or she accepts responsibility for the management of learning.

Socially engaging self-directed learning: Self-directed learning within a socially engaging context focuses on the psychological needs of the learners, it incorporates more learner input, and involves others in some manner (Long, 1993). For the purposes of this study, self-directed learning will refer to self-directed learning within a socially engaging context.

Socially isolated self-directed learning: self-directed learning in social isolation generally incorporates a heavy use of technology, involves a preprogrammed learning package, and it less often incorporates methods that stimulate self-direction within the learner. This format of self-directed learning is considered self-directing because the learner can proceed at his own pace through the programmed instruction, such as with workbooks, computers, or video instruction. This style of self-directed learning is often utilized by the business and technology sectors to train employees in a new skill (Long, 1993; Piskurich, 1993).

Staff development: For the purposes of this study, staff development will refer to a defined professional development program sponsored by, approved by, or occurring within a local district or school, and through which teachers may earn staff development units.

Staff development units: For each 10 contact hours of staff development successfully completed, one staff development unit is awarded (Georgia State Board of Education Rule 160-3-3-.04, 2000). A minimum number of staff development units must be earned in order to renew a teaching certificate in

Georgia (Official Code of Georgia Annotated 20-2-200 G, 2001).

Traditional school day: The 8-hour school day during which students are present.

Organization of the Study

The description of this study is organized into six chapters. Chapter 1 lists the statement of the problem, purpose of the study, background of the study, research questions, theoretical significance, theoretical framework, definition of terms, and the organization of the study. Chapter 2 consists of a review of the literature on system and state level mandates for staff development, effective staff development, adult learning theory and the theory of self-directed learning, and empirical studies on action research and self-directed learning as models of professional development. In chapter 3, a description of the staff development through which the study occurred is provided. In chapter 4, the context of the study, data collection and analysis procedures are discussed. In chapter 5, findings from the data are presented, and chapter 6 includes a discussion of the findings, conclusions, and implications.

CHAPTER 2

REVIEW OF THE LITERATURE

State and system mandates for staff development provide a baseline standard for what is expected of teachers and school systems. The expectation is that staff development will be effective in improving student achievement and meet the needs of educators. Paramount to meeting the needs of educators is providing learning experiences consistent with adult learning principles. Action research and self-directed learning are two staff development models that, by design, address needs of adult learners and can be implemented outside the traditional school day.

This chapter presents various components of staff development relevant to this study and is organized into four sections. First, state and system level mandates for staff development are presented. Next, effective staff development is discussed. Afterward, adult learning theory and theory of self-directed learning are related. And, in conclusion, empirical studies on action research and self-directed learning as models of professional development are examined. The chapter closes with a final statement summarizing the research in this study as it relates to the literature on effective staff development.

State and System Level Mandates for Staff Development

Teachers employed by the Gwinnett County Public School System are under obligation to meet a variety of staff development requirements in order to remain certificated in the State of Georgia and employed in their school district. The mandates for staff development originate from various agencies of authority: the state legislature,

state educational agencies, and their own local school system (see Appendix A). These agencies also extend certain privileges in regard to staff development. This section explains specific mandates and privileges associated with teacher staff development in Gwinnett County, Georgia, the agencies of authority with which they originate, and consequences for noncompliance with regulations.

The Georgia General Assembly stated, by law, “All public school officials and professional personnel certificated by the Professional Standards Commission shall be provided the opportunity to continue their development throughout their professional careers” (Official Code of Georgia 20-2-230 G, 2001, p. 1). The Georgia State Board of Education (Official Code of Georgia 20-2-167 G, 2001) and the Georgia Professional Standards Commission (Official Code of Georgia 20-2-200 G, 2001) have been charged with overseeing different components of staff development as they relate to teachers certificated in the State of Georgia, teachers employed in Georgia public schools, and public school systems receiving state funds for education. As mandated by Georgia law (Official Code of Georgia 20-2-230 G, 2001) and under the governance of the Georgia State Board of Education and the Georgia Professional Standards Commission, local school systems facilitate delivery and assessment of some teacher staff development programs. In addition, local school systems retain the right to compose mandates for staff development beyond that of state-required minimums (Gwinnett County Public Schools, Department of Professional Development, Office of Teacher/Staff Development). For teachers employed by the Gwinnett County Public School System, agencies with authority to regulate and enforce staff development requirements include the Georgia

General Assembly, the Georgia State Board of Education, the Georgia Professional Standards Commission, and the local school system itself.

The Georgia General Assembly, through legislation, has empowered the State Board of Education and the Professional Standards Commission to manage staff development. The Board governs activities of public school systems in relation to staff development, and it extends to those school systems responsibility for meeting minimum standards. Additionally, through a special application process, the board grants authority to school systems to become agencies for awarding staff development credit. The Professional Standards Commission is responsible for ensuring that individual employees meet minimum standards for certification, and staff development is a primary component of those standards.

This section is organized according to agencies of authority. First, the Georgia State Board of Education is discussed. Next, the Georgia Professional Standards Commission is presented. Finally, the role of the Gwinnett County Public School System is delineated.

Georgia State Board of Education

In relation to staff development, the State Board of Education oversees three functions. The first is funding, and it is used to enforce compliance with state regulations (Board Rule 160-5-2-.02, 1994). The second function governed by the board is development of Comprehensive Plans for Staff and Professional Development by local school systems. Lastly, the Georgia State Board of Education grants authority through an approval process, to local systems who so elect to apply, the right to award staff

development credit for the purposes of teacher certification renewal. This part is organized and presented according to these functions, respectively.

Funding

Official Georgia Code 20-2-167 G (2001) described the duties assigned to the Georgia State Board of Education and required that the agency report directly to the governor and the Georgia General Assembly. Calculation of funding to Georgia public schools is a primary function of the agency, and with this responsibility comes authority to enforce state laws through the awarding or withholding of state funding. Within the parameters of calculating funding, the Board of Education must require and approve submission of budgets from local school systems that delineate specific costs. Along with items such as instructional personnel and instructional operations, staff development is considered a major program component, and as such must be accounted for in the local school system's budget.

Comprehensive Staff and Professional Development Plans

Official Georgia Code 20-2-232 G (2001) mandated an additional procedure relating to staff development for Georgia public school systems. Each local school system must generate a 3-year comprehensive staff development plan. The plan must first be approved by the local school system board of education, and then subsequently the State Board of Education (Georgia State Board of Education Rule 160-3-3-.04, 2000). The plan shall provide for programs designed to address the needs of school and system personnel as identified through the annual personnel evaluation process, staff development needs as identified through the evaluation of the effectiveness of instructional programs, and such other needs as deemed necessary by the local school

system or prescribed by the state board” (Official Code of Georgia 20-2-232 G, 2001, p. 1). Additionally, it was suggested that local school systems collaborate with colleges and universities, state agencies, and other school systems to “develop more effective and efficient programs to meet the needs of the system and the individuals within the system” (Official Code of Georgia 20-2-232 G, 2001, p. 1).

Certification Renewal Plans

In addition to the Comprehensive Plan for Staff and Professional Development, the Georgia State Board of Education governs Certification Renewal Plans. Local school systems have the option of developing Certification Renewal Plans (Georgia State Board of Education Rule 160-3-3-.04, 2000), which, upon approval, empower the district to grant staff development credit for certification purposes. Teachers receiving staff development credit under the local school system’s approved plan may apply that earned credit toward state requirements for renewal of a teaching certificate.

The Georgia State Board of Education (Rule 160-3-3-.04, 2000) mandated two specific conditions to be met in order for certification renewal credit, or staff development units, to be awarded. First, one training activity must take place across at least 10 contact hours, or rather across 10 clock hours of instruction. For each 10 contact hours successfully completed, one staff development unit is awarded. Second, only time spent during the preparation phase, or formal instructional phase, may be considered as contact hours. The formal instructional phase is time one is actually under the supervision of a staff development facilitator.

Summary

In summary, as delineated by the Georgia General Assembly, the role of the Georgia State Board of Education in teacher staff development is one of governing the activities of local school systems. From translating law into procedural mandates to providing for certification renewal credit within the local school system, the board holds institutions accountable for meeting the needs of the students it serves and the professionals that provide that service. The State Board of Education's sphere of influence is at the institutional level.

Georgia Professional Standards Commission

The comprehensive function of the Professional Standards Commission is that of granting professional teaching certificates. While a variety of alternative certificates are granted, the Clear Renewable certificate is the only certificate indicating all requirements have been met. In addition, the commission oversees special circumstances that require individualized staff development plans. This part is organized under two topics: requirements for Clear Renewable certificates and individualized staff development plans.

Requirements for Clear Renewable Certificates

While the State Board of Education's role is that of governing local school systems, the role of the Georgia Professional Standards Commission is to ensure minimum standards, set by the Georgia General Assembly and the State Board of Education (Official Code of Georgia 20-2-211 G, 2001), are met by individuals certificated and employed by the State of Georgia. Official Code 20-2-200 G (2001) stated no professional personnel should be employed in Georgia public schools without

holding a certificate verifying qualifications issued by the Professional Standards Commission. Additionally, the code directed the commission to establish sufficient classifications of certificates to operate public schools, with classifications based only upon academic, technical and professional training, experience and competency. A Clear Renewable certificate indicates that all Georgia requirements for certification in listed fields have been met, and thereafter, standard renewal requirements must be completed to remain certificated (Georgia Professional Standards Commission Teacher Certification Rule 505-2-.10, 2000; Georgia State Board of Education Rule 160-5-1-.22, 2000). A minimum level of successfully completed staff development is one of the standard renewal requirements (Georgia Professional Standards Commission Teacher Certification Rule 505-2-.13, 2000).

Standard renewal requirements must be satisfied within the 5-year validity period of the Clear Renewable certificate (Official Code of Georgia 20-2-203 G, 2001; Georgia Professional Standards Commission Teacher Certification Rule 505-2-.13, 2000). Staff development requirements include both generalized training and Special Georgia Requirements mandated by the Georgia General Assembly (Official Code of Georgia 20-2-200 G, 2001; Georgia State Board of Education Rule 160-5-1-.22, 2000; Georgia Professional Standards Commission Teacher Certification Rules 505-2-.08, 2001; 505-2-.10, 2000; 505-2-.13, 2000). Staff development credit earned for completion of Special Georgia Requirements may be applied to the general staff development requirement.

The general staff development requirement is successful completion of 10 quarter hours of college credit, 10 staff development units or a combination of both types of credit (Georgia Professional Standards Commission Teacher Certification Rule 505-2-

.13, 2000). College credit must be earned at a regionally accredited college or university (Georgia Professional Standards Commission Teacher Certification Rule 505-2-.13, 2000). The Georgia State Board of Education (Rule 160-3-3-.04, 2000) mandated the same specific conditions listed in the Certification Renewal Plan be met in order for staff development units to be awarded. First, one training activity must take place across at least 10 contact hours for one staff development unit to be earned. Second, only time spent during the formal instructional phase may be considered as contact hours. Staff development credit earned outside Georgia may not be used for certification renewal unless presented on a college transcript or converted to Georgia staff development units (Georgia Professional Standards Commission Teacher Certification Rule 505-2-.36, 2000). The Georgia General Assembly (Official Code of Georgia 20-2-201 G, 2001) mandated that local school systems provide certificated personnel with 12 clock hours of in-service training each year, an amount that, if completed successfully, over 5 years would satisfy minimum staff development requirements for renewal.

The Professional Standards Commission accepts several types of credit toward satisfaction of the generalized staff development standard renewal requirement (Teacher Certification Rule 505-2-.13, 2000). Credit earned for completion of Special Georgia Requirements may be counted. Coursework taken to add a new field or type of certification may be applied. Coursework earned specifically for the purpose of renewing a Probationary or Clear Renewable certificate will be accepted as well. In addition, coursework taken at a regionally accredited college or university in the certificate field that does not duplicate previous courses as well as coursework taken as part of a degree program may satisfy the renewal requirement. Teachers holding a valid National Board

for Professional Teaching Standards certificate are considered to have satisfied these requirements (Georgia Professional Standards Commission Teacher Certification Rule 505-2-.13, 2000).

Special Georgia Requirements for certification renewal mandate successful completion of three specific staff development programs (Georgia Professional Standards Commission Teacher Certification Rule 505-2-.08, 2000; Official Code 20-2-200 G, 2001). Coursework for all three programs must be approved for credit by the Professional Standards Commission (Teacher Certification Rule 505-2-.08, 2000). Details of the required programs include several stipulations. The equivalent of 5 or more quarter hours (3 semester hours or 50 contact hours) must be completed in the identification and education of special needs students, more specifically students identified as gifted or qualifying for special education services (Official Code of Georgia 20-2-202 G, 2001). Computer-skill competency must be demonstrated through a proficiency test or by completion of a training course approved by the Professional Standards Commission (Teacher Certification Rule 505-2-.08, 2000) and State Board of Education (Official Code of Georgia 20-2-200 G, 2001), and evaluators of proficiency must be external to the school system employing the course attendee (Official Code of Georgia 20-2-200 G, 2001). Individuals certified in the areas of early childhood, elementary, middle school, English education and some specialties within special education must complete coursework, or its equivalent in an approved staff development program, in the Teaching of Reading (Georgia Professional Standards Commission Teacher Certification Rule 505-2-.08, 2000). Teachers holding a valid National Board for Professional Teaching Standards certificate are considered to have satisfied these requirements, and therefore

are exempted from completing coursework (Georgia Professional Standards Commission Teacher Certification Rule 505-2-.08, 2000).

In summary, several staff development requirements must be met in order to obtain a Clear Renewable certificate. After obtaining an initial certificate, all renewal requirements must be completed within the 5-year validity period of the Clear Renewable certificate. The general staff development requirement is completion of 10 quarter hours of college credit, 10 staff development units or a combination of both types of credit. Credit earned for completing Special Georgia Requirements may be applied to the general staff development requirement.

Individualized Staff Development Plans

Besides ensuring that professional personnel employed in Georgia's public schools meet minimum certification requirements, the Professional Standards Commission oversees other situations related to staff development. Regulations stipulated individualized development for "permitted personnel" (Georgia Professional Standards Commission Teacher Certification Rule 505-2-.17, 2000) and applicants for certification employed by public school systems who fail required assessments (Official Code of Georgia 20-2-200 G, 2001). The Professional Standards Commission defined *permitted personnel* as those serving in the capacity of certificated personnel, but who do not qualify for a professional certificate (Teacher Certification Rule 505-2-.17, 2000). Permits for these employees are granted for 1 year, and during that period the employing school must develop and implement a staff development program addressing the individual's competencies in the area of employment. Renewal of the permit will not be granted unless the staff development program has been completed. Unlike permitted

personnel, applicants for certification who have failed a required assessment have the option of requesting staff development in the deficient area. By law (Official Code of Georgia 20-2-200 G, 2001), the employing school system must provide the training requested.

Summary

The comprehensive role of the Professional Standards Commission is one of ensuring that individuals certificated in the State of Georgia and employed in Georgia public schools meet minimum standards for training. Through the granting or denial of a certificate to work in Georgia's public schools, the commission acknowledges the degree to which individuals have met those minimum standards. In contrast to the State Board of Education's sphere of influence being at the institutional level, the Professional Standards Commission's influence reaches every individual educator wishing to be certificated or employed in the State of Georgia.

Gwinnett County Public School System

As previously discussed, local school systems are required by the Georgia General Assembly and the State Board of Education to meet minimum provisions for staff development. As well, local school systems may elect to become engaged in staff development beyond minimum state requirements through participation in certification renewal (Georgia State Board of Education Rule 160-3-3-.04, 2000). The Gwinnett County Public School System has elected to offer staff development credit for certification renewal, and furthermore, through provisions for annual contract renewal (Gwinnett County Public School Contract for Employment, 2001), has extended beyond state minimums the requirements for staff development that must be met by district

employees (Gwinnett County Public Schools Department of Professional Development Office of Teacher/Staff Development, n.d.).

Local Requirements

The Georgia General Assembly (Official Code of Georgia 20-2-201 G, 2001) stated that local school systems must provide certificated personnel with 12 clock hours of in-service training each year. The superintendent of Gwinnett County Public Schools has augmented the requirement with a mandate that district employees participate in 20 hours of professional growth activities each year (Gwinnett County Public Schools Department of Professional Development Office of Teacher/Staff Development, n.d.). Employees may satisfy the requirement through formal courses, staff development courses, workshops, conferences, or similar activities. As well, staff development credit may be earned during 2 required system-wide staff development days (Gwinnett County Public Schools Department of Professional Development Office of Teacher/Staff Development, n.d.). Staff development credit earned to meet the local school system requirement may also be applied to state certificate renewal requirements (Gwinnett County Public Schools Department of Professional Development Office of Teacher/Staff Development, n.d.).

Staff Development Attendance Policy

Through approval by the State Board of Education to offer staff development credit for certification renewal, the Gwinnett County Public School System engages in staff development beyond minimum state requirements. The Certification Renewal Plan, required as a component of becoming an agency of authority to award staff development credit, must include criteria to verify that individuals completed the instructional phase of

training at an acceptable level (State Board of Education Rule 160-3-3-.04, 2000). In addition, a description of the record-keeping system used to document recommendations for awarding of credit must be included (State Board of Education Rule 160-3-3-.04, 2000). In meeting this requirement, the school system requires that individuals sign in at staff development courses. System policy additionally stated, “Attendance is mandatory for staff development courses. Attendance at 80% of the scheduled activity is required for SDU [staff development unit] credit” (Gwinnett County Public Schools Department of Professional Development Office of Teacher/Staff Development, n.d.). As a further stipulation, participants must attend 100% of the staff development activity in order to receive a stipend, if one is offered.

Summary

The Gwinnett County Public School System is the mediator that connects state mandates from the Georgia General Assembly and the State Board of Education with employees certificated by the Professional Standards Commission. The local school system acts as a facilitator for delivering state-required staff development to individuals who must participate in continued learning for certification renewal. Beyond this role, the Gwinnett County Public School System has exercised the authority to set standards of continued professional learning extending above those delivered by the state. The system’s sphere of influence is over policies and procedures that ensure district personnel have engaged in state-required staff development.

Summary

Agencies with authority to govern components of staff development in the Gwinnett County Public School System include the Georgia General Assembly, the

Georgia State Board of Education, the Georgia Professional Standards Commission and the school system itself. The majority of mandates for staff development are clearly stated in legislation passed by the General Assembly. Mandates to be managed by school systems are governed by the Georgia State Board of Education. Mandates applying specifically to certificated employees are governed by the Professional Standards Commission. The Gwinnett County Public School System, as a local education agency, is the nexus where regulation meets teacher engagement in staff development, and satisfaction of both institutional and individual requirements is accomplished.

Effective Staff Development

Glickman et al. (1998) defined professional development as “virtually any experience that enlarges a teacher’s knowledge, appreciation, skills and understanding of his work” (p. 347f). The Georgia Department of Education (1997) stated, “Staff development is an organization’s process for supporting the improvement of instruction through the professional growth of educators and support personnel” (p. I-1). Whether defined as an individual experience or a process, the current focus of professional development centers on improving student achievement and must be a concern of school districts, individual schools and teachers (Sparks & Hirsch, 1997).

Teachers report that “good” staff development accounts for their needs as adult learners, as well as their individual learning needs (Daresh, 1985). Sparks and Hirsch (1997) noted that, within effective staff development programs, teachers’ learning needs are addressed in the larger context of school-wide initiatives based upon assessed student needs. Additionally, educational experts have concluded that, if staff development is to be effective in meeting the needs of all parties with a vested interest in education, it must

shift in form from one-day, lecture-oriented workshops to a model of job-embedded learning (Collinson, 2000; Hirsch & Sparks, 1999; Zeichner, Klehr, & Caro-Bruce, 2000). The National Staff Development Council (2001) stated, “Staff development that improves the learning of all students organizes adults into learning communities whose goals are aligned with those of the school and district” (p. 5). Reiger and Stang (2000) reported that through collaboration in goal-setting between administration and teachers “staff goals and organizational goals are one in the same” (p. 63).

In this section, three components of effective staff development are explored: levels of organization, theoretical principles, and practical applications. The levels of organization discussed include the system, school, and individual. Theoretical principles focus on the National Staff Development Council’s (2001) Standards for Staff Development. Practical applications are presented according to considerations for planning and models of effective staff development.

Levels of Organization

Any system, whether it is a food chain, corporation or a school, is comprised of a number of complex parts that are all interconnected (Sparks & Hirsch, 1997). A change in any one part of the system will impact other parts of the system. As such, success of the whole system is not dependent simply upon one component, but instead upon the combined performance of all components. In the case of professional development, a school system is comprised of three components, or levels of organization: system or district, school, and individuals.

System

Staff development, as a process, can be conducted in both bureaucratic organizations and learning organizations (Georgia Department of Education, 1997). In a bureaucratic organization, staff development is organized by central office staff who independently conduct a needs assessment for the system, set staff development priorities for the district and plan staff development activities for district employees. Conversely, in learning organizations, individual schools and their faculties are central in determining needs and planning staff development activities. In either type of organization, bureaucratic or learning, staff development activities should be guided by a clear mission statement and measurable outcomes based upon student achievement (Sparks & Hirsch, 1997).

Sparks and Hirsch (1997) noted that a system mindset in planning staff development involves strategic planning at the district level focused on helping individual schools meet their improvement goals. A district level statement of mission and objectives reflects activities that will serve both district and school goals. With clearly defined expectations, the school district communicates what educators should know in order to impact student achievement (Hirsch & Sparks, 1999). Through its role as organizer of the system, the district, rather than issuing directives, guides individual schools in determining their needs and planning staff development. Within this type of arrangement, the district sets up the structure for a learning organization, as opposed to acting in a top-down, bureaucratic fashion. Consequently, the staff development program can then be used as a tool to close the divide between current performance and desired outcomes (Sparks & Hirsch).

Sparks and Hirsch (1997) asserted that if success is to be achieved by all students, the system as a whole must be able to renew itself continuously. Staff development provides a process with long-term capacity for improvement in schools (Georgia Department of Education, 1997). The National Staff Development Council (2001) recommended district level representatives create and implement a comprehensive plan to ensure standards for staff development are communicated, employed and supported. Through a framework of guided support, districts permit individual schools to “set their goals both to help the school system achieve its long-term objectives and to address challenges unique to their students’ needs” (Sparks & Hirsch, 1997, p. 13).

In summary, the school district, or school system, can function as either a bureaucratic or learning organization. Within a learning organization, local schools and their employees are empowered to identify needs and interests particular to the school setting and population. While improvement goals are designed around the particular school’s needs, they are framed within the larger mission and objectives of the school district. Through a comprehensive plan for staff development (Official Georgia Code 20-2-232 G, 2001), the district guides the system by ensuring standards for staff development are communicated, employed and supported in individual schools.

School

Reformers of education contend that reforms should be school focused (Sparks & Hirsch, 1997). Staff development that is school focused provides for professional staff at the local school to participate in decision making, both in assessing needs and planning staff development activities (Georgia Department of Education, 1997). Reiger and Stang

(2000) noted that when site-based approaches are utilized, staff goals and organizational goals are the same.

Achievement of students and development of the school is “inextricably linked to personnel development” (Georgia Department of Education, 1997, p. I-2). As such, schools that are to function as learning organizations require all employees be capable of operating successfully on school improvement teams and be responsible for helping peers develop instructional knowledge and skills (Sparks & Hirsch, 1997). The National Staff Development Council (2001) stated that in effective staff development programs, adults are organized into learning communities and provided the knowledge and skills to collaborate. Blase and Blase (1998) found teachers reported increased confidence, motivation, self-esteem and reflection when modeling good teaching for their peers. They recommended building processes of democracy and developing a culture of learning among teachers and administrators to enhance professional development. As an outcome of such an approach to professional development, staff development becomes “a strategy for making basic organizational changes in the way personnel work and learn together” (Georgia Department of Education, 1997, p. I-2).

Professional development that is school focused is considered more effective and more meaningful to teachers than other models of staff development, as the school staff determines its needs and plans staff development activities (Georgia Department of Education, 1997). Through school-focused staff development, assessment and planning are “student-centered, results-focused, attuned to staff needs and interests and consistent with the school and system long-range plans” (Georgia Department of Education, 1997, p. I-11). As well, it aligns with the National Staff Development Council’s (2001)

assertion that professional development that improves student learning is based upon disaggregated student data and other forms of data, prepares educators to make decisions and provides educators with the knowledge and skills to collaborate. Further, as the Georgia Department of Education (1997) noted, school-focused staff development becomes a process that occurs, as opposed to an event. As a result, collective learning shifts the model of learning from one-day workshops to learning that is embedded in teachers' roles (Collinson, 2000).

As a function of developing the knowledge and skills of professional personnel to achieve school development, school-focused staff development programs are designed to incorporate adult learning theory and address individual learning needs of educators (Georgia Department of Education, 1997). Zeichner et al. (2000) contended:

Good professional development respects and builds upon the knowledge and expertise that teachers already have. It allows participants to control and drive the opportunity, and involves inquiry and reflection over time with colleagues about issues that matter most to the teachers involved (p. 36).

School-focused staff development requires building administrators to understand the beliefs and needs of teachers and to work collaboratively with teachers for school improvement (Reiger & Stang, 2000). Blase and Blase (1998) found:

a principal's fundamental respect for the knowledge and abilities of teachers goes far in helping teachers develop themselves professionally. Indeed, even bureaucratically mandated forms of collegiality such as peer coaching may, over time, coupled with good school-based instructional leadership, produce increasingly positive attitudes toward professional growth in teachers (p. 167).

Summarized concisely, the research shows that building administrators employing school-focused staff development view professional development as an avenue to personnel and school development. As a result, they respect the experience of teachers and strive to meet their needs in context of the whole school's goals.

In summary, educational reformers contend reform should be school centered, and as such, professional development must be school focused. In school-focused staff development, all professional employees are included in assessing school needs and planning activities to address them. Decisions are based upon disaggregated student data as well as other forms of data. The role of the building administrators is to understand the needs of students and teachers, respect the experience teachers hold and the implications it has on school development and guide and support teachers in developing themselves professionally while concurrently addressing student needs and school goals.

Individual

Reiger and Stang (2000) stated that demands upon teachers will only increase as society changes. As such, teachers must have greater awareness and ability to address problems that may arise. The authors offered shared decision making as an option to reduce the sense of alienation teachers feel in their roles. They submitted as well that in a strong organization with a positive work environment, teachers are motivated and will often exceed the performance expectations place upon them. In the case of professional development within a school-focused learning organization, this suggests teachers will rise to the challenge of defining school goals and creating a staff development plan to address them.

As collaborators in school-focused staff development, individual teachers have a responsibility to become familiar with standards and practices of effective staff development, knowledge traditionally reserved for staff developers (National Staff Development Council, 2001). Black (1998) reported that teachers and other staff members “need time to absorb, consider, discuss, reflect and plan” (p. 3) when applying new information and trying new strategies in their classrooms and schools. Development in this manner takes time and is a long-term process (Black, 1998; Collinson, 2000). Black added that teachers must be helped to become more competent in applying new knowledge and that staff development at the school level should be congruent with and support long-range improvement goals. Collinson (2000) advised that school staff members be prepared for a period of discomfort as norms and habits change through the shift from relying upon external to internal expertise. The transformation from passive recipients of information to collaborative designers of staff development requires an adjustment on the part of teachers and administrators and will very simply take time.

In studying keys to effective staff development, Daresh (1985) found that teachers describe professional development activities as “good” when they address their needs as adults and their needs as learners. Teachers’ diverse needs stem from differing levels of experience, levels of concern for practice, methods and preferences for learning and motivation to participate in an activity (Burke, 1997; Daresh, 1985; Glickman et al., 1998). In studying the growth experiences of teachers considered average or above average by their principals, Duron (1994) found that, while his initial interview question did not define the parameters of a growth experience, all teachers related experiences that were intellectually challenging, occurred over time and resulted in changes in the

classroom. Participants expressed that they had a need to grow, that staff development was more meaningful when it addressed a self-diagnosed need, that the issue of choice was important, and that professional development occurred at both concrete and cognitive levels. The teachers considered meaningful staff development primarily a self-directed process, and as such, having a voice in their development was imperative. Essentially, teachers feel successful staff development meets their individual needs as learners, and as such, they are personally best able to diagnose their learning needs and select growth activities that will address those needs.

In summary, teachers take on new roles as diagnosticians and planners within a school-focused staff development program. Teachers' knowledge and skill level for these new roles must be developed, and the transition to relying upon peers' expertise should be expected to take time. In planning staff development activities, teachers desire that their needs as adults and as learners be considered and incorporated into the design of the program. As well, teachers prefer to be closely involved in selecting goals and development activities, as they feel best able to diagnose their learning needs.

Summary

In viewing a school district as a system of interrelated components, it is important to remember that success of one component, whether it is the district, school or teachers, is insufficient to bring success to the whole system. For student achievement to be maximized, the components must function to support one another. The role of the school district is one of developing a mission and objectives for the system, and additionally of guiding and supporting schools in implementation of standards for staff development. The local school retains responsibility for assessing student and faculty needs and

planning staff development activities that meet district and school goals. Teachers, through school-focused staff development, become collaborators in identifying and addressing the local school's needs, and therefore must develop knowledge and skills that enable them to function effectively in their new roles. As Sparks and Hirsch (1997) stated, "Success for all students depends upon both learning of individual school employees and improvement in the capacity of the organization to solve problems and renew itself" (p. 12).

Theoretical Principles

Traditional staff development programs have typically consisted of one-day workshops that were not focused on specific student needs, during which an "expert" presented information that teachers were expected to comprehend and incorporate into practice (Black, 1998; Collinson, 2000; Deojay & Pennington, 2000; Hirsch & Sparks, 1999). The face of staff development programs is changing, though, according to Collinson (2000), as a result of the realization that the transmission model, or sit and get model, does not reflect contemporary understanding of adult learning. Today a variety of professional development programs are job embedded "based upon the assumption that the most powerful learning is that which occurs in response to challenges currently being faced by the learner and that allows for immediate application, experimentation and adaptation on the job" (Sparks & Hirsch, 1997, p, 52). Black (1998) found that schools achieving results through staff development implemented programs that aligned with the school's long-term goals for school improvement and student achievement, were derived from research, and adhered to the National Staff Development Council's Standards for Staff Development.

The National Staff Development Council (2001) developed a set of 12 standards that established an expected level of performance for staff development. The standards are “grounded in research that documents the connection between staff development and student learning” (National Staff Development Council, 2001, p. 2) and are organized into three categories: context, process, and content. The council recommended that schools and school districts utilize the standards to improve staff development and increase student learning.

Each category of standards includes three to six expectations for staff development. Context standards address the structure and culture that must be present for learning, and they include three expectations. Process standards relate how staff development should be conducted, and six expectations are listed. Content standards are based upon what educators should know to ensure student success, and they are presented in three expectations. The National Staff Development Council (2001) contended that all standards should be addressed in staff development to ensure student learning is improved. The council added that if one category of standards is not addressed within a staff development program, the likelihood of the program’s success is diminished.

This section on theoretical standards is organized according to the three categories of standards published by the National Staff Development Council. First, context standards are addressed. Next, process standards are discussed. And, finally, content standards are addressed. In the presentation of each category of standards, expectations for staff development, along with related theory and research, are discussed.

Context Standards

The National Staff Development Council (2001) stated, “Context standards address the organization, system and culture in which the new learning will be implemented. They describe the structures that must be in place for successful learning to occur” (p. 2). The three expectations for context are that adults will be organized into learning communities “whose goals are aligned with school and district goals” (National Staff Development Council, p. 5), school and district leaders will be skillful in guiding continuous school improvement and resources will be provided to “support adult learning and collaboration” (National Staff Development Council, p. 5). Essentially, context standards relate the expectation that skillful educational leaders will guide adults to learn collaboratively in ways that support school and district goals. This part is presented in order of the expectations: learning communities, skillful leaders and adult learning and collaboration.

Collaborative learning in groups offers teachers opportunities for intellectual challenge and stimulation within a safe setting (Murphy, 1999; Zeichner et al., 2000). Murphy found that teacher study groups can impact not only students, but also the school’s overall culture, assumptions, beliefs and behaviors. Tichenor and Heins (2000) reported that faculty members of schools employing study groups found the groups a significant contribution to achievement of school goals. Hirsch and Sparks (1999) related that learning teams that are successful solve common problems, meet weekly and set incremental goals, analyze results after implementation and discuss instructional methods. In addition, Tichenor and Heins added that successful group learning occurred when participation was voluntary, activities encouraged active participation, time was

provided for implementation and reflection and participants were included in selection of materials. According to the group Education for the Future (1994), professional development that continuously improves all aspects of a school is team based, collegial and supportive, but as well is centered on the school's vision.

The National Staff Development Council (2001) related in its context standards the expectation that school and district leaders be skillful in guiding continuous school improvement. Sparks and Hirsch (1997) proposed that superintendents must continuously update their knowledge of issues critical to the whole district, while principals and teachers must have the knowledge, skills and attitudes necessary for effective instruction and the ability to work successfully in school improvement groups. Blase and Blase (1998) found that good instructional leaders, as defined by teachers, conversed often and openly with teachers about instruction, provided time for collaboration among teachers, empowered teachers through allowing autonomy in decision making and understood and confronted change and its challenges. Additionally, Acheson and Gall (1997) found that teachers desire an instructional leader meet with them individually, engage in conversation regarding their concerns, provide assistance in collecting and analyzing data, demonstrate skill in teaching and supervision and provide support. Further, Acheson and Gall noted that in leading a group of teachers, an effective instructional supervisor communicated expectations clearly, was enthusiastic, employed a variety of strategies and activities and kept the group on task. In essence, an effective instructional leader demonstrates knowledge of school concerns as well as teacher needs and provides for individual and group processes to address to both (Guskey, 2001).

Daresh (1985) stated that good staff development activities accounted for the needs of adult learners and differences among individual learners. Lindeman, a pioneer in adult learning theory, held five key assumptions about adult learners (Knowles et al., 1998). He posited adults are motivated to learn as their needs and interests require it, their orientation to learning is life centered, experience is their most valuable resource, they have an inherent need to self-direct their learning and lastly, as they age, the differences between individuals increase. Lindeman clearly believed: “Authoritative teaching, examinations which preclude original thinking, rigid pedagogical formula—all of these have no place in adult education” (Lindeman, 1926, p. 7). Malcolm Knowles, known as the “Father of Andragogy,” held six key assumptions that differentiated adult learning from that of children’s learning (Knowles et al., 1998). He stated adult learners have a need to know the “what, how, and why” of learning, their self-concept must be one of a self-directing learner, prior experience must be used as a resource and understood to contribute to the learner’s “mental mode,” readiness to learn is life related and based upon developmental tasks, orientation to learning is problem centered and contextual, and motivation to learn is intrinsic and incorporates a personal benefit. Knowles stated that the adult “comes into an educational activity largely because he is experiencing some inadequacy in coping with current life problems. He wants to apply tomorrow what he learns today” (Knowles, 1973, p. 48). In essence, learning for adults must be relevant, applicable, hands-on, and presented in a manner addressing individuals’ needs.

In summary, the National Staff Development Council’s context standards provide for addressing the growth needs of both schools and individuals working within them. There are three expectations. Adults will be organized into learning communities whose

goals are to address the needs of students and the school. Leaders at both district and school levels will be skilled in guiding instructional improvement. And staff development will be delivered in a format conducive to meeting the needs of adult learners. Concisely stated, professional learning will be guided by experienced leaders in a manner that addresses school goals and meets the needs of adult learners.

Process Standards

The National Staff Development Council's (2001) process standards relate methods for acquiring new knowledge, and they focus heavily on use of "data, evaluation and research" (p. 2). The expectations for staff development are that it is data driven, incorporates evaluation, is research based, designed according to intended goals, applies knowledge about learning, and develops educators' ability to collaborate. Succinctly stated, the process standards delineate how staff development programs should be conducted. This part is organized according to the expectations for staff development: data driven, incorporates evaluation, research based, designed around goals, applies knowledge of learning, and develops ability to collaborate.

The National Staff Development Council (2001) recommended that staff development be based upon disaggregated student data to determine learning needs, monitor progress and support continuous growth. Sparks and Hirsch (1997) stated:

Results-driven education simply begins the educational process by stipulating the desired results as a means of designing curriculum and instruction in a way that makes those results more likely to occur. ... The goal is improved performance—by students, staff and the organization. (pp. 4–5)

Calhoun (1994) suggested data be collected from existing archival sources, conventional sources and inventive sources. Archival sources include data already in existence, such as student grades, attendance and standardized test scores, while conventional sources are data one would generate, such as surveys, interviews, journal responses and observations. Inventive sources provide data through items such as portfolios, videotapes and exhibits. Deojay and Pennington (2000) offered a three-step process for utilizing data to plan professional development: (a) determine students' current level of performance, (b) develop a plan of action, and (c) evaluate progress and communicate it within the school and to parents and students. Basically, data should relate to the intended goal, be collected from a variety of sources and be evaluated and communicated systematically.

The second expectation delineated within the process standards (National Staff Development Council, 2001) is that a variety of data sources will be employed to guide growth and determine effectiveness of efforts. Schmoker (1996) observed, "Data are to goals what signposts are to travelers; data are not end points, but data are essential to reading them—the signposts on the road to school improvement" (p. 30). He suggested that faculties be permitted to work in groups or teams to determine which data would be gathered and to monitor progress against goals. Progress against goals should be checked at regular intervals, such as weekly or monthly, as appropriate to the goal (Calhoun, 1994; Schmoker, 1996). Further, Calhoun suggested that data triangulation, or the use of several data sources, in analyzing a situation provides a comprehensive perspective of an issue. Triangulation provides for depth in understanding the problem at hand, and it reduces the weaknesses of using a single data source. Calhoun reminded, "Goals set the parameters for selecting data sources that will provide information relevant to student

performance and attitudes” (p. 61). In summary, data should be collected from a variety of sources and utilized throughout the improvement process, not solely for summative assessment.

The third expectation within the process standards of staff development is that educators will be trained “to apply research to decision making” (National Staff Development Council, 2001, p. 5). The National Staff Development Council advocated that teachers and administrators become proficient at studying research behind instructional approaches and engaging in research to study the impact of new approaches employed. Action research is one method employed to train faculties in the use of research for decision making (Calhoun, 1994; Zeichner et al., 2000). Action research is the investigation, by educators, into the effectiveness of instructional practices and programs within their school (Calhoun). The process of inquiry, to be conducted by individual teachers or groups of teachers, includes five basic phases: (a) identification of an interest area or problem, (b) collection of baseline data, (c) organization of data, (d) interpretation of data as related to interest area or problem, and (e) implementation of action plan in response to data. Action research is cyclical; based on data and outcomes, subsequent interest or problem areas are identified and then the process repeats. Whether action research or some other method is employed, it is imperative that educators be trained to incorporate research into decision making.

As data collected should represent the intended goal, learning should also be matched to intended goals, and that match is the fourth expectation within the process standards for staff development (National Staff Development Council, 2001). Zeichner et al. (2000) offered, “In the end, the quality of learning for students depends to no small

extent on the quality of learning and opportunities for professional development that we provide for our teachers” (p. 39). In selecting procedures, Wood, Killian, McQuarrie, and Thompson (1993) suggested first looking within a school to determine what is consistent with and effective in meeting goals. Next, they recommended gathering information through site visits to schools effective in addressing similar goals, exploring the professional literature for potential programs and gaining assistance from specialists in the goal area. Sparks and Hirsch (1997) noted that job-embedded learning provides an inherent connection between goals and what educators are doing on a daily basis. Job-embedded activities can include action research, participation in study groups, observation of and by peers, journal writing and planning with peers. Whichever type of learning is selected, Calhoun (1994) offered, it should be the option most likely to improve learning in the goal area.

Within the process standards (National Staff Development Council, 2001), the fifth expectation is that “knowledge about human learning and change” (p. 5) will be applied in staff development. Wood et al. (1993) offered the following points regarding the teaching and learning of adults: adults commit to learning when goals are relevant and important to them; learning involves the ego and may produce anxiety; adults need concrete experiences when learning new behaviors; adults want to know the results of their efforts and receive feedback; learning in small groups produces higher levels of learning; adults have varying levels of experience and knowledge, and it is important to address individual needs; adults desire some control over their learning; adults are largely motivated by their own interests and concerns; and learning is not automatically transferred from training to practice, so coaching should be incorporated to encourage

integration of learning. Small group activities, choices in learning, experiential activities, peer coaching and individual learning plans as components of staff development inherently address what is known about adult learning needs (Wood et al., 1993). Birman, Desimone, Porter, and Garet (2000) found that while activities such as study groups and individual research were largely more effective than traditional staff development workshops or conferences, traditional workshops could be effective for adult learners if they had “appropriate duration, subject-matter content, active learning and coherence” (p. 29).

The final expectation for the process of staff development is that it “provides educators with the knowledge and skills to collaborate” (National Staff Development Council, 2001, p. 5). Zeichner et al. (2000) found that collaboration in a supportive group provides safety and security in learning endeavors as well as intellectual stimulation and challenge. In addition, Tichenor and Heins (2000) stated, “The process of exploring questions and sharing solutions in a trusting and supportive environment paves the way for renewed teaching and learning and facilitates the development of professional learning communities” (p. 317). Wood et al. (1993) posited that collaboration is developed through team-building activities which aid group members in acquiring the skills, understandings and relationships needed to function effectively in decision making. Team-building activities provide opportunities for group members to gain knowledge of each other’s backgrounds, experience and beliefs and values, permitting for clarification of commonalities and differences which may impact decision making. Tichenor and Heins offered the following guidelines for success when organizing collaborative groups: permit voluntary participation, allow participants to determine

topics and activities for study in relation to school goals, permit time for implementation and reflection, provide incentives for remaining in the group, include a reasonable number of members and provide assistance to the group in getting started. Murphy (1999) asserted that, within a group, all members should have equal status so that no participant is deferred to because of title, degree level, or other factors of rank. As well, Murphy contended, equal status encourages more productive group participation, as the underlying assumption is that all members have something of value to contribute to the group. In essence, collaboration is built upon the foundation of understanding and respect for group members' diverse perspectives and the development of skills for effectively communicating and addressing group goals.

In summary, process standards delineate the manner in which staff development should be conducted. Essentially, staff development should be based upon data-driven goals, evaluated continuously for effectiveness in meeting goals, and delivered in a format that is compatible with meeting the intended goal. Further, staff development should provide educators with the training to employ research in decision making and to work collaboratively in groups. And, finally, staff development should be conducted in a manner that incorporates principles of learning and change. The National Staff Development Council's (2001) process standards set the overall expectation that staff development will be carefully and methodically planned to meet goals that are also carefully and methodically selected.

Content Standards

The National Staff Development Council's (2001) standards for content relate what should be learned during staff development, and they focus on "what students must

know and be able to do” (p. 2). Three expectations are described within the content standards: equity, quality teaching and family involvement. Equity refers to understanding and appreciation for all students, and it impacts the type of learning environment created and expectations held for academic achievement. Quality teaching is supported through deepening of educators’ knowledge of content, strategies and assessment. Finally, family involvement is encouraged by training educators to solicit and engage families in student learning.

This section is organized into three parts. First, equity is discussed. Next, the expectation for developing quality teaching is related. Lastly, family and stakeholder involvement is addressed.

The National Staff Development Council (2001) stated staff development that addresses equity “prepares educators to understand and appreciate all students, create safe, orderly and supportive learning environments and hold high expectations for their academic achievement” (p. 5). In relation to appreciation of students, Sardo-Brown (1995) and Vulliamy (1991) found, after conducting action research, that educators noted an increased value of student views, improved relations with students, and a heightened sensitivity to affective concerns of students. Similarly, in regard to content and standards for student learning, Birman et al. (2000) found that “the degree to which professional development focuses on content knowledge is directly related to teachers’ reported increases in knowledge and skills” (p. 30). They added that, to be effective, staff development on general teaching methods must be paired with content, and if teachers are to meet new standards for student learning, they must have the opportunity to develop “a sophisticated understanding of the content and of how students learn that content”

(Birman et al., 2000, p. 30). In delivering content to teachers that prepares them to provide equitable treatment of students, both affectively and academically, it is imperative, as mentioned previously, that design of staff development is paired with the intended goal (National Staff Development Council, 2001). Sparks and Hirsch (1997) noted that in order for teachers to “model appropriate behavior, guide student activities and provide various forms of examples rather than use common instructional practices that emphasize telling and direction” (p. 9), staff development must be delivered in a format that allows teachers themselves to develop and practice these activities. Equity, to summarize, must be modeled and practiced within teacher training programs if it is to be assimilated into teachers’ classrooms.

The National Staff Development Council (2001) submitted that quality teaching is encouraged through staff development that “deepens educators’ content knowledge, provides them with research-based instructional strategies to assist students in meeting rigorous academic standards and prepares them to use various types of classroom assessments appropriately” (p. 5). Quality teaching results from the culminating skills of learning to incorporate data in decision making, assessing progress toward goals, and developing content knowledge as required in progressing toward goals (Birman et al., 2000; Calhoun, 1994; Sparks & Hirsch, 1997). Schmoker (1996) suggested that “good research, whether we call it best knowledge or best practice, can unleash a vast, dormant potential for making every child’s and teacher’s life richer and more interesting” (p. 66) and offered as content to be studied research on the brain and learning, basic skills and higher order skills, writing, reading, leadership, intervention, and socioeconomic factors and achievement. Regardless of content studied, professional practice should be based

upon research relating effective methods and strategies, and staff development should incorporate opportunities for research and study of professional literature.

The third expectation for content of staff development (National Staff Development Council, 2001) is that it “provides educators with knowledge and skills to involve families and other stakeholders appropriately” (p. 5). Marx (2000) contended that in order to “bring out the individual talents and abilities of *all* students,” teachers “need to rally their communities to support education that will make it possible for *all* students to flourish, despite their social or economic backgrounds” (p. 33). Payne (1998) noted that a variety of resources play “a vital role in the success of an individual” (p. 17) and that the following resources must be considered in supporting students: financial, emotional, mental, spiritual, physical, support systems, relationships and role models and knowledge of hidden rules. In communicating with and encouraging involvement of parents, Payne further recommended that educators consider what resources are available to them and make realistic, “workable suggestions” (p. 39). Further, the National Staff Development Council (2001) stated:

Teachers who establish partnerships with the families or other caregivers of their students must understand the cultural backgrounds of their students and the unique challenges those families may be experiencing. Teachers must be able to communicate clearly and respectfully with family members and demonstrate a genuine interest in the welfare of the child and family. (p. 34)

Essentially, within the context of staff development, teachers should be led to understand the cultural and environmental milieu of individual students as well as the community at

large, so that resources may be effectively integrated for maximum benefit to all stakeholders.

In summary, the content standards for staff development (National Staff Development Council, 2001) delineate what educators should be learning. The three expectations are that content will focus on developing teachers' knowledge base of and skills in: equity in treatment of students, content, strategies for instruction and assessment, and involving families and stakeholders in student learning.

Summary

The theoretical foundations for effective staff development can be understood within the National Staff Development Council's (2001) standards for staff development. Context standards relate that staff development should occur within learning communities whose activities are based upon school and district goals, under leaders skillful in guiding instructional improvement and with resources to support learning of and collaboration among adults. Process standards set the expectation that staff development will be based upon data, guided by evaluation, ground decision making on research, designed to meet the intended goal, incorporate knowledge of learning, and prepare educators to collaborate. Content standards hold the bar for what teachers should be learning, with the expectations that teachers will learn to treat students equitably both affectively and academically, deepen content knowledge and knowledge of instructional and assessment strategies, and will develop skills in engaging parents and other stakeholders in student learning. In conclusion, the standards for staff development (National Staff Development Council, 2001) simply provide a framework for what should be presented in staff development, how it should be designed and in what context it should be delivered.

Practical Applications

The American Society for Training and Development (1988) defined staff development as a program that addresses individuals' personal growth. The National Staff Development Council (1995) stated that staff development addresses continual development of new skills, is ongoing, is interwoven into the participants' role, and requires time to be fully assimilated. In addition, the council stated that "new practices should be protected and nurtured" (p. 1) through methods such as study groups, peer coaching, action research, and observation paired with assessment. Hord, Rutherford, Huling-Austin and Hall (1987) suggested that staff development is an evolving process, not simply an event that occurs.

Under the premise that staff development is an ongoing process, this section focuses on models of staff development that occur over time. First, practical considerations for planning programs are discussed. Next, specific effective models of staff development are described, along with barriers that may inhibit their potential effectiveness. Finally, a summary of effective practices is presented.

Considerations in Planning

In planning for staff development, a number of variables must be considered. This section focuses on general items to be considered when planning for effective staff development. First, motivation for learning is addressed. Next, stages of planning a school-based staff development program, along with formats for learning, are presented. Finally, considerations for the learning environment in which staff development takes place are discussed.

Glickman et al. (1998) noted that a staff development planner could not make every activity valuable and interesting to every participant, but the activity should be so to almost all participants. They added that teachers' motivation and commitment to a staff development program is based upon two factors: choice and the responsibility to make informed decisions about their work. In a similar vein, Sparks and Hirsch (1997) stated that job-embedded learning, or that learning which is directly incorporated into an educator's professional responsibilities, is a powerful staff development format, because it "occurs in response to challenges currently being faced by the learner and that allows for immediate application, experimentation, and adaptation to the job" (p. 52). Sparks and Hirsch added that "well-designed training programs followed by coaching" is the preferred method of staff development. By permitting teachers to select staff development that meets their needs and providing for adaptation to the teachers' professional roles, conditions for motivation can be met.

In planning a school-based staff development program, Wood et al. (1993) offered a five-stage process. In the first stage, district and local school personnel determine improvement goals. In this stage, Glickman et al. (1998) would argue that needs assessment surveys and checklists be followed up with questioning to determine exact needs rather than general needs. The second stage in planning a school-based staff development program is determining programs that will be instrumental in helping staff members meet improvement goals. In the third stage, the school faculty participates in training developed around adult learning principles. The authors suggested including group or team learning, providing choice of activities, providing opportunities for practice within activities and developing action plans. During the fourth stage, faculty

members implement in their professional roles what was learned during training.

Participants should be given assistance and coached through implementation during this stage by a knowledgeable peer or supervisor. And the fifth stage, which occurs across time, involves continuous monitoring of techniques and changes to ensure they are maintained. This five-step process provides for assessment, planning based upon goals, adherence to adult learning principles, application to professional roles, and coaching—activities encouraged by the National Staff Development Council (2001).

Glickman et al. (1998) presented a number of formats in which ongoing staff development could be presented at a variety of levels. Opportunities that can be offered to individuals are leadership development in specific areas such as presenting professionally or peer coaching, writing either in reflective journals or for publication, and development and implementation of personal learning plans. Opportunities for learning in pairs can be presented through mentoring programs, pairing a more experienced teacher with a novice teacher. Group learning opportunities can be offered through skills development workshops presented over several sessions, teacher centers, teacher institutes, support groups, educator networks, and partnerships with universities and businesses. Regardless of the format of staff development utilized, the authors encouraged that programs provide for orientation to, integration of, and refinement of learning into the participant's professional roles.

Finally, in planning for staff development, one must consider the environment in which learning takes place (Glickman et al., 1998). Components of the environment include the presenter, seating arrangements, acoustics, technology and materials.

Glickman et al. (1998) suggested that speakers be prepared ahead of time as to what they

are expected to do. Wood et al. (1993) encouraged use of expert facilitators, whether they are local employees or hired consultants, to conduct training. Glickman et al. further recommended that meeting facilities be checked in advance for seating, sound and technology, to be certain the presentation can be comfortably seen and heard by all participants. As well, they added that all materials should be prepared in advance of sessions, including evaluation forms. To be effective, staff development must be presented in an environment that does not limit or impair potential for learning.

In summary, one must consider a variety of factors when planning for effective staff development. While learning may occur through many formats, motivation for learning is based upon the ability to choose personally and professionally meaningful experiences. Staff development should be methodically planned, implemented, and assessed, and it should be designed adhering to principles of adult learning. In order to be best understood by participants, learning experiences must occur in an environment conducive to learning, where the presenter, accommodations, and materials are easily heard and seen by learners.

Models of Effective Staff Development

While staff development may occur within a variety of formats, several specific models are considered effective in supporting ongoing professional development. Among those models are action research, participation in study groups, peer coaching and mentoring (National Staff Development Council, 1994; Sparks & Hirsch, 1997). In this section is presented a description of each model, why it is effective and factors that inhibit its potential effectiveness. First, action research is presented, followed successively by study groups, peer coaching and mentoring.

Action research.

Action research is the investigation by educators into the effectiveness of instructional practices and programs within their school (Calhoun, 1994). The process of inquiry includes five basic phases: (a) group identification of an interest area or problem, (b) collection of baseline data, (c) organization of data, (d) interpretation of data as related to interest area or problem, and (e) implement action plan in response to data. This framework for improvement is cyclical; based on data and outcomes, subsequent interest or problem areas are identified, then the process repeats. Whether conducted by individual teachers or groups of colleagues, Calhoun (1994) noted the benefit of action research to be the potential for individuals to develop a professional mindset and improve their performance by becoming adept problem solvers.

Approaches to action research are varied, but common to all the approaches are the same basic methods, benefits, and constraints to the process. Some approaches are entirely individualistic, with the educator working alone on a self-selected project (Sardo-Brown, 1995; Vulliamy, 1991). Others incorporate group meetings and journal writing as methods of reflecting upon progress, and one focuses solely on professional discourse as the research tool (Auger & Wideman, 2000; Feldman, 1998; Robertson, 2000). Largely, in the studies referenced, conversation with facilitators and peers was found highly beneficial in advancing learning. Reflection was the key to creating change, and successful action researchers noted having time to reflect provided during the process. In all cases, regardless of the action research approach utilized, participants desired to apply the knowledge gained in their roles as educators and professionals.

Benefits of participating in action research impacted the individual, their students, and the professional community as a whole (Auger & Wideman, 2000; Feldman, 1998; Robertson, 2000; Sardo-Brown, 1995; Vulliamy, 1991). Participants developed a critical awareness of their values and practices, improved observational and listening skills, pursued interests and applied learning, felt an enhanced sense of control over learning, and experienced a greater sense of professionalism. After conducting research, participants noted an increased value of student views, improved relations with students, and a heightened sensitivity to affective concerns of students. In relation to the community, participants felt a connection with the professional literature. As networks of collegial support developed and professional dialogue improved, participants felt they could contribute to the body of professional knowledge. As a whole, action research placed emphasis on teacher learning rather than teacher training, and as a result, real classroom change occurred.

Constraints to conducting successful action research stemmed from both the personal and professional experiences of participants (Auger & Wideman, 2000; Feldman, 1998; Robertson, 2000; Sardo-Brown, 1995; Vulliamy, 1991). Personally, individuals felt anxiety in balancing the demands of home, work, and research. Lack of time to reflect deeply on learning and action was often a barrier to a positive action research experience. Adjusting to the fluidity of the research process itself, such as becoming comfortable with the malleability of the cycle or learning that a proposed course of action could not be taken, elicited frustration for some individuals. Within the professional arena, participants experienced barriers to research through inability to

secure respondent data and inability to secure administrative support in accessing school-wide data.

Study groups.

Study groups are small groups of faculty members that meet together regularly to address student needs (Murphy, 1999). The purpose of study groups is to “help teachers focus on teaching, coordinate and collaborate with colleagues, pass on experience and develop a group understanding of the school and its ongoing mission” (Murphy, 1999, p. 21). Study may be based upon group action research, professional readings, or a set of investigative questions (Murphy, 1999; Tichenor & Heins, 2000). Effective study groups select topics meaningful to them, have time for implementation of and reflection upon learning, allow individuals to participate voluntarily, encourage by design of activities active participation, include a reasonable number of participants, and solicit aid as necessary in beginning (Tichenor & Heins, 2000)

Study groups provide teachers the opportunity to develop collegial relationships and engage in discourse whose goal is improved instruction (Murphy, 1999; Zeichner et al., 2000). Zeichner et al. found that teachers participating in action research study groups reported having greater confidence in addressing instruction in their classrooms, developed proactive strategies for managing difficult situations, and became more adept at analyzing their own teaching. The researchers also found that study groups provided safety in learning while also presenting intellectual stimulation and challenge.

Barriers to employing study groups as an effective staff development method include: need for release time, cost of resources, and employ relations impacted by a challenging study group (Zeichner et al., 2000). For study groups that do not have the

luxury of meeting during a workday planning period, schools must provide teachers with release time to meet during the workday. Often schools do not have the financial resources to pay for substitutes to cover teachers' classrooms. As well, study groups must have funds to cover the cost of resources and materials, like books, journals, and trainers, to be used in group study (Murphy, 1999). Finally, relations among faculty members sometimes become tense due to ideas that are deeply seated with some participants and challenged by other participants, resulting in uncomfortable professional relations.

Peer coaching.

Joyce et al. (2000) described peer coaching as a learning approach that provides for cooperative study. Each participant has the goal of improving his or her own performance through both observation by and observation of a peer. Communication is factual and nonjudgmental. The role of the observer is to provide information on student behavior and performance and to assist in creating an action plan to address targeted areas of improvement. The observer acts primarily as a facilitator for reflective thinking, as opposed to an advisor (Joyce & Showers, 1988; Joyce et al., 2000). Joyce and Showers noted that peer coaching allows for feedback on performance without the stress of formal evaluation.

Many benefits are associated with peer coaching for teachers, both as adult learners and educators. Becker (2001) found that 90% of learners who encounter theory, demonstration, practice within training, and feedback paired with coaching implement newly learned skills. In addition, teachers participating in peer coaching reported developing a larger repertoire of skills, greater skill in analyzing their own practice, enhanced ability to perform professionally, better understanding of teaching and learning,

and stronger professional relationships. Also, teachers noted greater student achievement and progress.

Factors inhibiting success of the peer coaching model are resources and the level of trust required between peers. Because peer coaching is based upon classroom observation conducted while one participant is teaching, release time for the observing teacher is essential (Becker, 2001). Often schools do not have the financial resources to hire substitute teachers to cover the observing teacher's classroom. Also, schools and districts utilizing the peer coaching method of staff development must commit resources in the form of funding and time to train individuals to participate effectively in the program. When resources are available to implement peer coaching, participants must develop a reasonable level of trust, and they must be assured that their performance as observed by the peer coach will not be used against them, either personally or as a form of evaluation (Galbraith & Anstrom, 1995).

Mentoring.

Mentoring is generally the pairing of a knowledgeable, experienced teacher with a new teacher or a teacher new to a school (National Staff Development Council, 1999). Expected outcomes for the mentee are "fast assimilation into the school environment, establishment of professional competence and introduction to teaching as a continually developing, lifelong career" (Educational Resources Information Center, 1986). Although activities vary widely by location, typical activities include conferencing, peer coaching, observation (by both mentor and mentee), problem solving, and reflection (The Mentoring Leadership & Resource Network, 1998). The mentoring cycle consists of observation of the mentee by the mentor, assessment of what was observed, practicing

new skills based upon assessment data, and then assessment of practice (Educational Resources Information Center, 1986). As well, research and coaching for refinement of teaching skills are encouraged.

Mentoring provides benefits to both the mentor and mentee (Educational Resources Information Center, 1986). Mentors are given professional respect and the opportunity to share their expertise with their protégés. As well, through mentee questions, mentors are presented with prompts to examine their own professional practice. Mentees benefit by receiving individualized support in learning school procedures and norms, as well as guided feedback on instruction and management, thus leading to increased professional competence. Further, the mentee receives support in navigating local, district, and state administrative systems. Teachers participating in a mentoring program have been found to remain in the field of education longer than those who have not been supported through such a program (Institute for Educational Research, 2001).

Factors inhibiting success of mentoring as a staff development program are the conceptions of expectations by mentors, the nature of mentoring as a relationship-oriented process, confusion between assessment and evaluation, and the time necessary to implement the mentoring process (Feiman-Nemser, 1996). Feiman-Nemser (1996) noted that mentor teachers often have vastly different impressions and performances in their roles, and that mentor beliefs impact mentee learning. She added that it is difficult to “formalize in a program” (p. 10) what is necessary to create an effective mentor-mentee relationship, as relationships are unpredictable. Nickols (1999) stated, in regard to mentoring relationships, that “what has been historically an informal, unofficial,

voluntary, mutually-agreeable and self-selected interaction between two people has become a program—an institutionalized stratagem for trying to force what probably can only come about naturally” (p. 2). A further difficulty with mentoring programs has been the separation of assessment and evaluation, since the mentor process is grounded upon trust but requires the mentor teacher to assess the abilities of the novice teacher. Finally, time to implement the mentoring program in its true form is a great issue (Feiman-Nemser, 1996). Because most mentors also teach full-time, it is difficult to find time to train and support mentors in their roles, and it is equally difficult for mentors and mentees to find time to observe one another’s instructional practices. In sum, the dynamic nature of the mentoring process itself creates the greatest barriers to the effectiveness of this model of staff development.

Summary of models of effective staff development.

Models of staff development found effective in supporting ongoing professional development include action research, study groups, peer coaching, and mentoring. All four models incorporate job-embedded learning addressing the participants’ individual concerns. As well, each model provides for professional discourse with peers and reflection upon learning and instruction. Benefits of the models are increased skill in analyzing instruction, an enhanced sense of professional efficacy, and a better understanding of teaching and learning. Barriers common to the models are time for training and implementation, financial resources to support the learning, and the need for professional trust among colleagues.

Summary of Effective Staff Development

Staff development that is effective in improving student achievement requires cooperation by all levels of educators, including district level employees, school administrators and individual teachers. District employees must utilize data to set a staff development mission as well as broad goals for schools. School administrators must involve teachers in disaggregating school data, setting specific school improvement goals, planning staff development, and evaluating progress. Teachers must take on new roles as diagnosticians and planners, and they must take responsibility for developing their knowledge and skill levels for these new roles as well. The school system is dependent upon effective and successful functioning of all component parts.

Planning for staff development is based upon assessed need, adult learning principles, and research on effective staff development. Need is determined through data and evaluation. Adult learning principles are incorporated through collaborative, job-embedded, ongoing programs. Effective staff development programs are identified through research and observation of working models.

Models of staff development found to be effective in supporting ongoing professional development are action research, study groups, peer coaching, and action research. The models all incorporate job-embedded learning, collaboration, and reflection upon learning. Barriers to potential effectiveness of these models are simply resources: time, money, and emotional capital.

Adult Learning Theory and Theory of Self-Directed Learning

According to Eduard Lindeman, a pioneer in adult learning theory, “Every adult person finds himself in specific situations ... which call for adjustments. Adult education

begins and ends at this point” (Lindeman, 1926, p. 6). He added that subject matter is brought to the situation, and the curriculum is built around the adult learner’s needs and interests. Malcolm Knowles, known as the “Father of Andragogy” (Knowles et al., 1998), noted that each adult learner’s needs and situation differ, and therefore adults are best served when the learning is adapted to their “uniqueness” and situational needs. He proposed self-directed learning as the context in which to meet the needs of adult learners.

This section is presented in two parts. First, adult learning theory is presented, with a focus on origins, modern andragogy and key contributors to current theory. Next, self-directed learning is addressed, with attention given to the developing theory and self-directed learning in practice.

Adult Learning Theory

Origins

Confessore and Confessore (1992a) submitted that self-direction in learning is a natural characteristic of humans, a trait inherent to development of our evolving species, and noted until recent history, occurred without the structure of formal education. Ancient cultures, such as the Chinese, Hebrews, Greeks and Romans, viewed learning as a process of inquiry and problem solving, and relied upon individuals’ experiences and thinking to further group knowledge (Knowles et al., 1998). The Chinese and Hebrews utilized the case method and parables to lead group exploration of solutions to problems. The Greeks employed Socratic dialogue to pose a dilemma and pool thinking to find a solution. The Romans engaged learners in confrontational challenges, and group members were forced to defend their positions. Oddly, despite a longstanding history of

concern with adult learning, and early critical thought in the area in writings such as Craik's *Pursuit of Knowledge Under Difficulties* in 1840 and Hosmer's *Self-Education* in 1847, formal research interest in the topic of andragogy is traced only to the early 1960's (Brockett & Hiemstra, 1991). The study of adult learning itself, known as andragogy, really only began after World War II.

From modern andragogy, two streams of inquiry developed (Knowles et al., 1998). The scientific stream was initiated by Edward Thorndike and embodied an experimental approach. The reflective stream was launched by Eduard Lindeman and focused on the qualitative aspect of adult education.

Thorndike (1935) employed quantitative methods to prove individuals had the ability to learn well into adulthood and that their interests changed with age. He commented:

For thousands of years it was an avowed or tacit assumption of human education that learning belonged primarily to infancy and childhood. ... It is now seriously challenged for two reasons—that it would be unfortunate under present conditions if it were true, and that it is in fact false. (Thorndike, 1935. p. 1)

Thorndike added that an adult's ability to learn did not ensure future learning, especially in light of the barriers faced by adults at the time: superstition that they as adults could not learn, failure of society to provide facilities and lack of interest. Some individuals, he said, spent time learning out of habit, without really wanting to do so, like some attend church without wanting to do so. Learning competed with other leisure activities for time, and many of those things did not require the rigor of study. Thorndike concluded if one

wanted to learn, he had to be interested enough to proceed through all the details of learning.

Lindeman (1926) and Thorndike (1935) both viewed education of the times as tedious work. Lindeman postulated, “If learning is to be revived, quickened so as to become once more an adventure, we shall have need of new concepts, new motives, new methods; we shall need to experiment with the qualitative aspects of education” (Lindeman, 1926, p. 4). These new concepts for education of adults included: life as education, focus on personal interests—not just vocational learning, use of real situations in learning—not abstractions and viewing experience as the most valuable resource in learning. Borrowed from friend and colleague, John Dewey (Smith, 2001), Lindeman’s idea of experience might include “*what* men do and suffer, *what* they strive for, love, believe and endure, and also *how* men act and are acted upon, the ways in which they do and suffer, desire and enjoy, see, believe, imagine” (Dewey, 1958, p. 8). The composite body of experience, he said, is “the adult learner’s living textbook” (Lindeman, 1926, p. 7). The analysis of adult learners’ experience, as described and advocated here, led to the foundation of adult learning theory (Knowles et al., 1998).

Lindeman held five key assumptions about adult learners (Knowles et al., 1998). Adults are motivated to learn as their needs and interests require it. Their orientation to learning is life-centered. Experience is their most valuable resource. Adults have an inherent need to self-direct their learning. And lastly, as they age, the differences between individuals increase. Lindeman clearly believed, “Authoritative teaching, examinations which preclude original thinking, rigid pedagogical formula—all of these have no place in adult education” (Lindeman, 1926, p. 7).

Modern Andragogy

Until the 1960's, the literature in adult learning was limited, sociological in nature and primarily quantitative. Cyril Houle, a visiting professor at the University of Wisconsin, is credited with bringing andragogy to the fore (Candy, 1992). Houle performed a series of interviews with adult self-directed learners in preparation for general interest lectures he was required to present. From the lectures and interviews came the text for *The Inquiring Mind* (Houle, 1961). This book shifted the focus of the time from social issues surrounding adult learning to processes of adult learning. Through use of qualitative research methods, data was gathered on the learner, his values and his aspirations.

The Inquiring Mind (Houle, 1961) focused on individuals deemed to engage in a large degree of educational activities. Houle pursued study in the qualitative fashion, because previous studies of adult learners focused on the simple actions of what adult learners do. Houle (1961) wanted to investigate the patterns of individual adult learners' efforts, thoughts and reasons associated with continued learning. In essence, he wanted to know why this group of learners thought they were the way they were. From Houle's work, two lines of research emerged: reasons for participating in adult education and self-directed learning (Candy, 1992).

Key Contributors to Modern Theory

During the late 1960's to early 1970's, two researchers, Malcolm Knowles and Allen Tough, began contributing significantly to the body of research in adult learning (Long, 1992; Nelms, 1993). Both men focused primarily on self-directed learning, but each approached the topic from different perspectives. While Tough studied adult

learners working largely independently of others, Knowles selected to study individuals pursuing their interests within the context of group work. Despite bifurcated approaches, each researcher made important contributions to field of the adult learning.

Malcolm Knowles held six key assumptions that differentiated adult learning from that of children's learning (Knowles et al., 1998). Adult learners have a need to know the "what, how and why" of learning. Their self-concept must be one of an autonomous, self-directing learner. Prior experience must be used as a resource and understood to contribute to the learner's "mental mode." Readiness to learn is life related and based upon developmental tasks. Adult learners' orientation to learning is problem centered and contextual. And motivation to learn is intrinsic and incorporates a personal benefit. Knowles stated that the adult "comes into an educational activity largely because he is experiencing some inadequacy in coping with current life problems. He wants to apply tomorrow what he learns today" (Knowles, 1973, p. 48).

While Knowles discussed how adult learning was different from children's learning, Allen Tough described adults' self-selected learning projects. Tough was a doctoral student under Cyril Houle, and his initial research was based upon transcripts of interviews Houle conducted for *The Inquiring Mind*. Through the study of adult learning projects, Tough determined that not only do adults do a great deal of learning outside formal learning environments, but the vast majority of that learning is self-planned (Tough, 1971, 1979; Nelms, 1993). In 1992 (Tough), he noted that roughly 100 surveys of various groups in over 10 different countries confirmed approximately 90 percent of all adults perform at least one learning project a year. He described a learning project as "a major, highly deliberate effort to gain certain knowledge and skill (or to change in

some other way)” (Tough, 1971, 1979). Some learning projects were conducted to gain knowledge, insight or understanding, while others were to improve a skill or attitude or change a behavior. It was not uncommon, Tough related, for an individual to spend 700 hours a year on a learning project, and the time spent was enormously significant to the individuals and the benefactors of their learning.

Summary

The education of humans has been a concern since ancient times. It was not until our recent history, though, that formal, academic attention was given to the learning process of adults. Research has shown that adult learning is clearly different from that of children. Further, adults are motivated by desires and interests related to their everyday lives, and adult education must be designed accordingly in response. Self-directed learning has been proposed as the method to address the “uniqueness” and situational needs of adult learners.

Self-Directed Learning

From the foundational work of both Knowles and Tough in the field of adult learning, research into self-directed learning blossomed. The theory of self-directed learning began to develop. Further, it was utilized more widely in practice. This part is organized under two topics: the developing theory of adult learning and self-directed learning in practice.

The Developing Theory

While the study of adult learners did not bloom until the work of Houle, Tough and Knowles, components of theory regarding self-directed learning can be found in much earlier works. Philosophical contributions by Lindeman and Dewey are heavily

embedded in the theory, while empirical work by Thorndike supports their philosophies. Based upon these foundations, modern researchers have generated additional data that expands the developing theory of self-directed learning.

Lindeman (1926) noted that if it is taken for granted that human nature is varied and changing, then it must be accepted that meanings are constructed by individuals. As such, “meaning must reside in the things for which people strive, the goals which they set for themselves, their wants, needs, desires and wishes” (Lindeman, 1926, p. 8). Lindeman further extended that adults want their experiences to be vivid and their talents to be used. They want to express themselves to others, and foremost, they want to improve themselves. In response, Lindeman capitulated, the spirit and meaning of education is not found in formalized, mechanized educational processes. The context of adult education, he contended, is in small groups of adults who learn through confronting pertinent situations, who reach into the reservoirs of their experience before reaching for a textbook and who are led in discussion by teachers who are co-learners (Lindeman, 1926).

A contemporary of Lindeman, John Dewey espoused the same sense of liberating the learner. Despite primarily directing his arguments to educators of children, Dewey’s principles of incorporating experience into education have been embraced by educators at all levels. In *Experience and Education* (1938), Dewey expounded upon the role of experience in education. He submitted that, at the most basic degree of impact, each experience changes somehow, whether desired or not, the individual encountering it. The new understanding impacts emotional and intellectual attitudes and the ways individuals react to the conditions of everyday life. Dewey (1938) asserted that in order to teach

through experience, educators must have a “sympathetic understanding of individuals as individuals which gives him an idea of what is actually going on the minds of those who are learning” (p. 39). Responsibilities of educators in teaching through experience, he proposed, include: recognizing student needs, capacities and previous experiences; recognizing conditions of the environment that contribute to engaging in worthwhile experiences; incorporating teacher knowledge and prior experience in arranging conditions so that experiences can be made available to learners; beginning instruction with the experiences learners already have; selecting learning experiences that extend the learner’s body of experience; participating co-operatively with the learner in mitigating learning experiences based upon intellectual purposes; aiding students in exercising their freedom within learning experiences while not placing restrictions upon that freedom; and providing brief intervals for reflection. As a final note, Dewey (1938) reminded, “it goes without saying that the organized subject-matter ... cannot provide the starting point. Nevertheless, it represents the goal toward which education should continuously move” (p. 83).

In *Adult Interests*, Thorndike commented on the traditional behaviors of teachers and their impact on adult students, then further made suggestions for remedying the problems. Due to custom, he speculated, teachers have almost unilaterally been made responsible for the management of student learning. Consequently, an air of authority or superiority, even condescension, develops in relation to students. The adult learners

are perhaps especially sensitive to it because they already have to endure more domination in the factory or office than they can tolerate. Also, when one pays his

own money ... for instruction, he may naturally feel more right to be catered to as a part-owner in the class. (Thorndike, 1935, p. 152)

Thorndike suggested the teacher shift from a mindset of master to friend. In doing so, teaching must reflect the mindset. That can be done so by: employing a combination of lectures and discussions of individuals' experiences and problems; providing for expression of concerns by class members; and exploring methods of learning that do not require a full-time teacher. Thorndike (1935) hypothesized, "Methods of teaching without a teacher may turn out to be more flexible, humane and inspiring than anybody would now suppose" (p. 158).

Modern andragogy, and more specifically, theory of self-directed learning, speaks heavily to the idea of learner control, as opposed to the role of teacher as master. Garrison (1993) defined control as "the opportunity and ability to influence educational decisions" (p. 30). He put forth three factors that influence control: independence to choose goals, support in the form of human and nonhuman resource and proficiency required to achieve goals. Garrison hypothesized that becoming truly self-directed requires balancing these three factors, compensating in one area for deficits in another. Self-direction in an educational learning context is represented by shared control, combining learner input and the legitimate role of the teacher. Self-direction is manifested intra-personally by critical reflection and change in consciousness. "The ultimate purpose of learner control is to achieve a deep understanding and to inter-subjectively confirm knowledge structures" (Garrison, 1993, p. 36).

Mezirow (2000) contended that gaining greater control as a "liberated learner" is limited by social, historical and cultural conditions. Our identity and reality is shaped by

the contexts of our culture and relationships. According to Mezirow's theory of transformational learning, one must confront ingrained understandings and critically reflect upon them to determine their dependability. The vehicle for reflection is collaborative discourse with others where different perspectives are presented and viewpoints challenging norms are encouraged. Transformative learning occurs in four ways, according to Mezirow (2000), "by elaborating existing frames of reference, by learning new frames of reference, by transforming points of view or by transforming habits of mind" (p. 19). He contended that aiding adults in becoming autonomous thinkers is both a method and a goal for adult educators.

Just as Mezirow focused on the internal processes of adults' learning, Baldonado (1993) did as well. Baldonado defined variables of self-directed learning. External variables are contextual and situational attributes of the learning, and internal variables are personality attributes or traits. In creative or novel learning, Baldonado asserted the internal variables of critical thinking skills, diagnostic reasoning, and problem-solving strategies are crucial. Learning content, processes and outcomes are mediated by the internal variable of personal values and the external variable of time. Further, reflection requires that learners are able to control mental processes guided by internal variables and interferences from the environment of external variables.

Concerning internal variables, DeJoy and Herrmann (1993) noted in their research on self-directed learners that, when learning, adults experience powerful emotions that stem from deeply established beliefs and perceptions, as well as their concept of self. Learners are not prepared, in general, to deal with their emotions and responses to learning challenges. The researchers felt it necessary that adults develop a concept of

themselves as learners and critically reflect upon their progress in the learning process. DeJoy and Herrmann submitted that educators of adults must acquire and use specific knowledge in facilitating and counseling adult learners.

While much attention has been given to issues concerning self-directed learning, Long and Walsh (1993) noted that the term “self-directed” is subject to a variety of qualitative interpretations. As a method for exploring self-directedness through empirical research, Lucy Guglielmino developed the Self-Directed Learning Reading Scale (SDLRS). The SDLRS is a quantitative measure that has been found valid for measuring the phenomenon it purports to describe. The following, measured for on the SDLRS, have been suggested as characteristics of self-directedness: initiative, independence, persistence, sense of responsibility for learning, curiosity, ability to view problems as challenges, goal-orientation, desire to learn or change and enjoyment from learning. Long and Walsh (1993) considered the SDLRS the best available instrument for measuring self-directedness in learning.

In summary, the developing theory of self-directed learning is rooted largely in a few core ideas. First, individuals construct meanings for things based upon their experiences with those things. As such, adults should be taught through the foundation of their experiences. Further, individuals need control over decisions concerning their learning, in addition to opportunities for reflection on and assimilation of learning, as learning experiences can elicit powerful emotions for adults. Concisely, every adult’s experiences are different, and thus the individual is best able to determine his own learning needs.

In Practice

Candy (1991) characterized self-directed learning as the moral, emotional and intellectual autonomy of the learner. He added that the learner is self-managing in that they accept responsibility for the management of learning. Long (1993) described two approaches to self-directed learning: socially isolated and socially engaged. Self-directed learning in social isolation generally incorporates a heavy use of technology, involves a preprogrammed learning package and it less often incorporates methods that stimulate self-direction within the learner. This format of self-directed learning is considered self-directing, because the learner can proceed at his own pace through the programmed instruction, such as with workbooks, computers or video instruction. This style of self-directed learning is often utilized by the business and technology sectors to train employees in a new skill (Piskurich, 1993; Long, 1993). Self-directed learning within a socially engaging context focuses on the psychological needs of the learners, it incorporates more learner input and it involves others in some manner (Long, 1993). Tough's and Knowles's work was situated within the context of socially engaging self-directed learning (Long, 1992). While in his study of adults' learning projects, Tough did include learning activities that were socially isolating, Tough's approach to self-directed learning was centered on the individual (Tough 1971, 1979). It focused on self-planned learning programs with occasional learner-teacher contact. Knowles's work was concerned with the learner working in a group, and he viewed the teacher's role as one of a facilitator that aided the adult learner in becoming more self-directed (Knowles, 1975; Knowles, 1989).

Tough stated adults' chief motivation for learning projects is goal-oriented, in contrast to Houle's assertion that motivation was equally distributed among goal-orientation, learning-orientation and activity-orientation (Houle, 1961; Bonham, 1992). Additionally, he noted that learning at their own pace, in their own style, in flexible ways and in their own structure as reasons adults selected to learn on their own (Tough, 1992). Tough discussed two goal types: extrinsic and intrinsic (Olgren, 1993). With an extrinsic goal, learning is directed to an end outside the physical person, such as a reward or promotion. In meeting this type of goal, the learner primarily seeks to reproduce facts, and reflection or integration of the learning into the adult's repertoire of activities is minimal. Intrinsic goals come from within the physical person and are concerned with integrating learning for personal reasons, such as self-improvement. Learners motivated by intrinsic goals become more deeply and personally engaged in the learning experiences. Tough (1992) stated that, in relation to work, learners do not engage in learning because they cannot perform the job, but instead they learn in order to do a good job.

Tough is best known for his work on adult learning projects. Kasworm (1992) listed six characteristics of these projects Tough generated. They are created by a question or goal. Understanding is often private and evolving. The project is dynamic in that it involves many changes in direction. Learning usually occurs in episodes. Learning is focused for a period of time. And, the learner creates, conducts and evaluates the learning. Tough (1971, 1979) also noted that adults often use planners to facilitate a project. Planners can take the form of human or nonhuman resources. Human resources can be a facilitator or supervisor, while nonhuman resources can be workbooks or tapes.

One-on-one, guided learning might be necessary in situations where a facilitator would be useful in pointing out deficits in learning and guiding improvement, for example, as when learning to drive a car. Nonhuman resources generally have detailed lessons and procedures that the learner follows in learning. Tough added that prior learning is a significant factor in adults' learning projects. When content is new, planning is often ambiguous and will be redefined. When learning is built upon existing knowledge, planning is generally more focused and specific.

Tough listed four major benefits of self-directed learning for adult learners (Kasworm, 1992). It is specific to the learner's needs and preferences. Learning is under the individual's control. Learning opportunities are available even when expert courses or materials are not. Lastly, it is convenient for the learner.

While Tough focused on understanding and facilitating self-directed learning for adults working independently, Knowles chose to concentrate his work on adults pursuing learning within a group context. Knowles commented on four facets of self-directed learning within a group: The adult learner becomes more self-directed over time; responsibility for learning is placed on the individual; a climate of warmth, respect, support, and trust is emphasized; and the learner may need assistance in becoming a proficient self-directed learner (Long, 1993). Additionally, Knowles, Holton and Swanson (1998) held "Five Assumptions Underlying Self-Directed Learning": self-directed learning is an essential component of maturing, and as such, this potential should be nurtured; the learner's experiences are a rich resource in learning, and they should be utilized in conjunction with the contributions of experts; each learner becomes ready to learn that which is necessary to deal adequately with life's problems at the time; the

natural orientation to learning is problem or task-centered; and an adult's internal desires, such as the need for esteem, desire to achieve or urge to grow, are the motivation for learning. Largely, Knowles asserted respect to be given to the adult learner and the experiences they bring, while simultaneously nurturing them to develop their self-directedness.

Although Knowles was a prominent advocate for self-directed learning, he recognized there are situations when teacher-directed learning may be preferred (Knowles, 1989). One such situation is when the learner has little or no experience with the area being explored. If level of maturity regarding the area of exploration is insufficiently developed, teacher-directed learning may be more appropriate than self-directed learning. When the learner must focus on accumulation of subject matter or is motivated by external pressures, teacher-directed learning may address learner needs more completely than self-directed learning. Knowles affirmed, even in these cases, it is crucial the learner is engaged in critical thought. Despite the teacher's level of involvement in instruction, Knowles viewed their role as two-fold (Knowles, 1975; Long, 1992). As a facilitator of adult learning within a group context, the teacher is first responsible for climate setting and relationship building. Second, the teacher should assist the learner in becoming more self-directed through giving assistance in diagnosing needs, formulating objectives, and developing learning contracts (Knowles, 1975).

In summary, self-directed learning in practice provides for learner autonomy. Regardless of an adult's motivation for learning, experience and everyday situations provide the foundation for learning. Self-directed learning provides for tailoring of learning to an individual's unique needs, and may be conducted independently, with a

planner or within a group setting under the guidance of a facilitator. Experts in self-directed learning asserted it is the role of adult educators to guide adult learners in developing their natural proclivity for self-directedness.

Summary

Self-directed learning incorporates all the tenets of adult learning theory as described by Lindeman, Knowles and Tough (Bonham, 1992; Knowles et al., 1998; Lindeman, 1926). Self-directed learning permits the learner to identify his specific needs in relation to his individual duties, facilitate his own learning, capitalize upon his prior knowledge and experience, proceed at his own pace as he is ready progress to higher levels of learning and respond conveniently to internal and external motivations (Knowles et al., 1998). Essentially, self-directed learning provides adult learners the autonomy to design learning experiences specific to their individual situations.

The implications of adult learning theory and theory of self-directed learning for adult educators are several. Their role shifts from one of didactic instruction to facilitation of independent learning. Further, they must become familiar with the unique emotional and instructional issues that may arise for adults engaged in self-directed learning. And, most importantly, adult educators must become adept at guiding adults to develop themselves as self-directed learners.

Empirical Studies of Action Research and Self-Directed Learning

Action research, study groups, peer coaching and mentoring are all examples of effective staff development methods. As well, self-directed learning provides educators an option for job-embedded learning. Of these five methods, though, only action research and self-directed learning, by design, provide for independent learning outside the

traditional school day. It is because these two effective methods provide a solution to the problem of insufficient time for staff development during regular school hours that they were considered feasible frameworks for this study.

Action research as described by Calhoun (1994) and self-directed learning as advocated by Knowles et al. (1998) share several common characteristics. Both draw on the benefits of addressing learning within a group, while permitting individualized pursuits. Each provides adults an opportunity to pursue learning consistent with their specific needs and interests. Each is problem or life-based, an important need for adults in learning. Unlike pure self-directed learning, though, action research inherently provides for evaluation of learning. Conversely, unlike action research, self-directed learning provides for development through methods other than research.

While it would seem logical to superimpose these similar formats upon one another in one staff development program, the empirical literature does not recount such an example. Further, uses of action research and self-directed learning in isolation in teacher staff development programs are not widely related in the empirical literature. This section relates a body of empirical studies in which action research and self-directed learning are in used in teacher professional development programs (see Appendix B).

This section is organized into two parts. First, studies employing action research in teacher professional development are explored. Afterward, studies involving self-directed learning in professional development are presented. Each part will begin with a description of the concept and follow with the empirical studies.

Action Research

Concept

Action research is the investigation, by educators, into the effectiveness of instructional practices and programs within their school (Calhoun, 1994). The process of inquiry includes five basic phases: (a) identification of an interest area or problem, (a) collection of baseline data, (c) organization of data, (d) interpretation of data as related to interest area or problem, and (e) implementation of action plan in response to data. This framework for improvement is cyclical; based on data and outcomes, subsequent interest or problem areas are identified, then the process repeats. Whether conducted by individual teachers or groups of colleagues, Calhoun (1994) noted the benefit of action research to be the potential for individuals to develop a professional mindset and improve their performance by becoming adept problem solvers.

Empirical Studies

Action research has been employed in a variety of formats by professors training preservice and practicing teachers. With the exception of one study, the following programs were facilitated by university officials as part of academic requirements for courses or graduation. The remaining study was coordinated by a university researcher for a group of public school administrators. In each case, the goal was professional development of the individuals receiving the training. Table 2.1 describes the action research models employed and their characteristics.

Table 2.1

Action Research Models and Their Characteristics

| Researcher | Action research model | Characteristics of model |
|-------------------|--|--|
| Auger and Wideman | Preservice teachers conducted action research projects during student teaching. | <p>Selected research question to study in context of student teaching</p> <p>Attended group meetings</p> <p>Reflected in written journals</p> <p>Presented studies, findings, and conclusions in small group setting</p> |
| Sardo-Brown | Graduate students conducted action research projects within their professional role. | <p>Selected project</p> <p>Composed written report of findings</p> <p>Presented findings within their school districts at parent conferences, staff development programs, and to inform policy decisions</p> |
| Vulliamy | Graduate students conducted action research projects within their professional roles. | Negotiated project with head teacher at own school who oversaw the action research |
| Robertson | School leaders, in conjunction with the researcher, utilized action research to investigate professional development programs. | <p>Collaborated in pairs as peer coaches</p> <p>Reflected on goals and impact of actions taken</p> <p>Participated in group discussion</p> |
| Poetter et al. | Mentor teachers and the preservice teachers paired with them conducted either | Conducted through the standard research process, but also through self-reflective |

| Researcher | Action research model | Characteristics of model |
|------------|--|---|
| | independent or collaborative action research projects. | journaling and in-depth study of professional literature Discourse between mentors and preservice teachers |
| Feldman | Graduate students utilized conversation and reflection to conduct action research within their professional roles. | Collaborated in action research groups to exchange anecdotes and ideas Verbal reflections within group Written reflections within a journal Individual presentation of findings to group |

Auger and Wideman (2000) studied the experiences of 42 preservice teachers at Nipissing University voluntarily conducting action research projects during their 13-week teaching practicum. Each participant selected a research question and project, and then conducted the study while student teaching. Additionally, the student teachers attended group meetings and reflected in a written journal throughout the study. As well, they participated in individual interviews with the researchers and completed surveys of the benefits of their action research experiences. At the close of the program, the participants presented their studies, findings, and conclusions in a small group setting.

The researchers utilized grounded theory to analyze data from observation of group meetings, participant journals, individual interviews and questionnaire responses. In general, participants noted their actions in the classroom contradicted their values, and they felt responsible for correcting the discrepancy. Additionally, the teachers felt they had the potential to contribute to educational knowledge. Benefits of using action

research as reported by the participants were: opportunity to improve professional practice, freedom to investigate areas of interest, development of networking and collegial support, improvement in personal sense of professionalism and confidence. Constraints to using action research were: preconceived ideas what good research is and who is in control of it, view of research as academic and not practice-based, previous experience with research as “book search” opposed to practice-oriented and time necessary to become comfortable with the “fluidity and informality” of the process.

Additional findings were: action research is a powerful means of improving practice by enhancing the teachers’ sense of autonomy, action research provided a framework for integrating and synthesizing information, participants developed an enhanced sense of acuity in observation of children, collecting data drew attention to children’s learning as a central focus, participants felt better able to develop theories and translate them to practice and the process provided collegial support for professional growth. The key finding centered around the importance of networking and mentoring, illuminating the development of the participant as both an active listener and critical friend in the action research process. Auger and Wideman concluded the following regarding preservice teachers’ experiences with action research: places importance on teacher learning instead of teacher training, supports literature demonstrating that investigating one’s own practice in the classroom produces real changes, increases teachers’ sense of autonomy and control over educational learning, contributes to a sense of collegiality with critical research friends and develops learning communities of teachers committed to improvement.

Sardo-Brown (1995) described results similar to those of Auger and Wideman in her case study of six practicing teachers enrolled in a master's degree program. The teachers taught in a range of grade levels, content areas, and settings, and as part of graduation requirements were to conduct an action research project and compose a written report of the findings. The researcher collected qualitative data from the participants' written reports and anonymous responses to an open-ended questionnaire.

Participants described the benefits of action research as: developing an enhanced sense of professionalism, improved relationships with administrators and students, increased sensitivity to affective concerns of students and a sense of connection to material in professional journals. The teachers also noted development of keener observation skills and having a greater understanding of why they do what they do in the classroom. When asked what they might do differently, participants stated: have a contingency plan for another study if the first study cannot be done, plan how to control for extraneous classroom variables, build in incentives for participants in their studies to return surveys and journals, carry out a pilot study and make earlier requests of administrators in gathering data needed to conduct studies. The teachers expressed frustration with the time needed to collect and analyze data, while still teaching full-time. As well, they struggled with planning research to maximize response rates and obtaining administrative support in collecting data.

Participants noted their research findings would be presented largely within their districts at staff development programs, in parent conferences and to suggest policy changes. The teachers recommended schools and school districts do the following to help facilitate action research in the schools: provide release time to do research, encourage

teachers in the same building to do group research, give access to school-wide data and provide funds for research supplies. Sardo-Brown recommended that interaction among teachers at similar grade levels be facilitated, so that participants develop a better understanding of the struggles faced by other teachers in similar situations.

Vulliamy (1991) studied a group of 127 practicing teachers enrolled in a master's degree cohort program who also felt a sense of anxiety surrounding their action research projects. As part of the degree program, teacher action research was to provide participants the opportunity to address their own concerns and practical problems while facilitating school change. The teachers' action research projects were negotiated with and supervised by the head teachers in their particular schools. Vulliamy utilized grounded theory to analyze data from open and closed-ended questionnaires, in-depth interviews with some participants and informal discussions with the head teachers.

While participants noted that action research contributed to their personal and professional growth and reported an increased value for student views, they often commented on the demands for completing the project. Teachers felt they did not have sufficient time to both collect data and sufficiently reflect upon it before taking action, and reflection on practice was the factor most frequently mentioned by those able to bring about change from action research. Issues such as time constraints and work-related requirements took precedence over ongoing analysis and critical reflection. Several participants described the anxiety they felt during the action research process resulting from conflicting demands from home, work and the research. Again, those teachers able to bring about change from their action research noted head teachers provided opportunities for them to leave the classroom during the workday to pursue their

research. Largely, because of time constraints, the experience was stressful for most participants.

Robertson (2000) facilitated the action research process for a group of school leaders in New Zealand intending to generate a professional development program for administrators. The leaders collaborated in pairs as peer coaches for 2 years, and as in other studies regarding reflection, they noted that in reflecting with others they were able to reflect on their own about what they might want to do before taking action. Using grounded theory within an action research framework, the researcher analyzed data from observation of participant pairs, interviews and reports from participant pairs, observation of individual participants and researcher interviews with participants.

Within the project, three concurrent strands of action research took place: development of theory regarding professional development for school leaders, research into individual practices and development of a critical self-awareness. In developing theory, practice and theory reciprocally impacted one another. The leaders were not only interested in their research findings, they wanted to incorporate the findings at the school and classroom levels, then analyze and evaluate the results. As the principals investigated their own practice, they became more interested in action research to make changes within their schools than in developing a theory of professional development. And lastly, a critical self-awareness began to emerge from the research. The process of action research was fostered by allowing the leaders time to reflect on the goals they were setting, then incorporating reflection after action was taken. By participating in diverse groups, the leaders were challenged in their thinking due the range of perspectives. Robertson found that action research itself became the professional development model.

Poetter et al. (1999) conducted a case study of three mentor teachers working with preservice intern teachers. The mentors and preservice teachers simultaneously engaged in individual action research. The objective of the study was to learn what would happen if mentor teachers engaged in educational research while supervising intern teachers also engaging in research. The researchers analyzed data from participant interviews, participant research reports and written researcher reflections on informal discussions and observations.

The mentor teachers utilized a variety of methods to conduct their action research: self-reflection through journaling, collaborative study with the intern and independent study. Regardless of method employed, the mentors and preservice teachers gained a “sharing of the minds” that developed from working together in study of the classroom. It was also found that the mentor teachers established the worth of research into practice, as they were also engaging in inquiry. As the mentor and preservice teacher worked together, potential for growth as a team and as individuals dramatically increased. Action research improved the professional dialogue between the pairs, and as a result, the culture surrounding them transformed. Lastly, the researchers concluded that all three approaches to action research, journaling, deep study of the professional literature and inquiry into a particular thematic unit, were “possible, workable, potentially successful avenues” (p. 19). Poetter et al. concluded that, as a result of their action research experiences, the mentors grew both personally and professionally in a number of ways yet to be explored.

Drawing on teacher experiences related in the professional literature, as well as those observed in his own university classes, Feldman (1998) modified the action research model and studied the experiences of a approximately 60 graduate students

enrolled in his classes. The participants were primarily practicing teachers, but included other educators as well. The course met one evening each week for 14 weeks, and the modified action research was one required activity of the course.

Feldman's model of action research was called enhanced normal practice, and it solely utilized conversation and reflection throughout the action research cycle. Feldman's rationale for the modification included two components: practicing teachers lacked the time and energy to conduct typical research projects while working full-time and attending graduate school, and conversation can lead to taking of action and meet the goal of improvement inherent to action research. Participants worked in collaborative research groups to exchange anecdotes and generate ideas. Individuals would implement the ideas in their professional roles, then return to discuss how they worked. Using the new data, the teachers would further discuss situations and determine new courses of action, always with the goal of improving practice. In addition to verbal reflections within the group, each participant was required to give a brief speech about their research topic, write in a reflective journal, meet in research groups outside class time to discuss and read each others' reflective journals and present their research at the end of the course.

The researcher utilized grounded theory to analyze researcher journal entries and observations of class discussions, students' written reports and speeches, audiotaped speeches, participant journals, audiotaped research group conversations, audiotaped oral presentations and e-mail correspondence with students. The participants found the modified action research model useful for: learning how to do research, development of communities of practice and achieving action research goals. While the participants

found that whole class discussion of issues allowed for inequity in participation, they felt the research group was an important forum for discussion of issues. Research groups were noted as the location in which most knowledge and understanding was generated. Feldman concluded that enhanced normal practice, as a modified form of action research, was useful to participants in furthering their own learning.

Summary

While the particular approaches to action research varied, common to all the studies were basic methods, benefits and constraints to the process. In every case, research was conducted while working in the school. Conversation with facilitators and peers was highly beneficial in advancing learning. Reflection was the key to creating change, and successful action researchers noted having time to reflect provided during the process. In all cases, participants desired to apply the knowledge gained in their roles as educators and professionals.

Benefits of participating action research applied to the individual, their students and the professional community as a whole. Participants developed a critical awareness of their values and practices, improved observational and listening skills, pursued interests and applied learning, felt an enhanced sense of control over learning and experienced a greater sense of professionalism. After conducting research, participants noted an increased value of student views, improved relations with students, and a heightened sensitivity to affective concerns of students. In relation to the community, participants felt a connection with the professional literature. As networks of collegial support developed and professional dialogue improved, participants felt they could contribute to the body of professional knowledge. As a whole, action research placed

emphasis on teacher learning rather than teacher training, and as a result, real classroom change occurred.

Constraints to conducting successful action research stemmed from both the personal and professional experiences of participants. Personally, individuals felt anxiety in balancing the demands of home, work and research. Lack of time to reflect deeply on learning and action was often a barrier to a positive action research experience. Adjusting to the fluidity of the research process itself, such as becoming comfortable with the malleability of the cycle or learning a proposed course of action could not be taken, elicited frustration for some individuals. Within the professional arena, participants experienced barriers to research through inability to secure respondent data and inability to secure administrative support in accessing school-wide data.

Self-Directed Learning

Concept

According to Eduard Lindeman, a pioneer in adult learning theory, “Every adult person finds himself in specific situations ... which call for adjustments. Adult education begins and ends at this point” (Lindeman, 1926, p. 6). He added that subject matter is brought to the situation, and the curriculum is built around the adult learner’s needs and interests. Malcolm Knowles, known as the “Father of Andragogy” (Knowles et al., 1998), noted that each adult learner’s needs and situation differ, and therefore adults are best served when the learning is adapted to their “uniqueness” and situational needs. He proposed self-directed learning as the context in which to meet the needs of adult learners.

According to Knowles's Five Principles of Adult Learning, adults prefer situational learning that relates directly to their needs and interests (Knowles et al., 1998). Instruction should be life-centered and experiential, while providing for differences in individual's optimal learning conditions. In addition, adult learners become more self-directed over time, and they desire to apply rather quickly what they have learned. According to Candy (1991), self-directed learning is characterized as the moral, emotional and intellectual autonomy of the learner. He added that the learner is self-managing in that he or she accepts responsibility for the management of learning.

Empirical Studies

While self-directed learning has been researched heavily for more than a decade (Long, 1992, 1993) and recommended as a delivery format in adult learning for several decades (Knowles, 1975; Tough, 1993), staff development programs organized around the concept are scarcely related in the empirical literature. Of the four studies related, only two describe actual staff development programs. The remaining studies discuss perspectives on self-directed learning of teachers and school districts considered effective. Unlike the use of action research in professional development by university professors, self-directed learning in all the studies delineated was initiated by practitioners—either school systems, doctoral students affiliated with the school district or teachers. Table 2.2 describes the self-directed learning models implemented and their characteristics.

Table 2.2

Self-directed Learning Models and Their Characteristics

| Researcher | Self-directed learning model | Characteristics of model |
|-------------|--|---|
| Duron | No formal model; teachers conducted learning at their own prompting outside a formal situation | Choice in learning |
| Jailall | Self-directed learning option within school districts' differentiated supervision framework | Teacher input into learning High teacher motivation Culture supported self-directed learning Catered to teacher interests |
| Corabi | District-wide self-directed professional development program | Motivation and empowerment of teachers Worked individually and collaboratively Principal support and feedback created a nonthreatening atmosphere for risk-taking. Related to professional role |
| Craft-Tripp | Self-directed professional development program as a form of evaluation | Teachers self-selected goals and discussed them individually with principals. Promoted professionalism among teachers Flexibility in goal setting Related to professional role Facilitator not required to be an expert in teaching area. |

Duron (1994) studied the growth experiences of nine elementary teachers considered average or above average by their principals. Using open-ended questions, each participant was interviewed three times. In the first interview, the teacher was asked to discuss a significant professional growth experience. In subsequent interviews, the researcher prompted elaboration by the teacher with probing questions based upon earlier responses. Length of interviews ranged from 45-75 minutes. Data from transcribed interviews and researcher field notes were analyzed for emerging themes utilizing a phenomenological methodology.

Duron found that, while the initial question did not define the parameters of a growth experience, all teachers related activities that were intellectually challenging, occurred over time and resulted in changes in the classroom. Most programs were conducted outside the district and took place everyday for a week, everyday for a month or weekly over a semester. Participants expressed: the need to grow, that staff development was more meaningful when it addressed a self-diagnosed need, the issue of choice was important and professional development occurred at both concrete and cognitive levels. The teachers considered meaningful staff development primarily a self-directed process, and as such, having a voice in their development was essential.

Duron's findings on having a voice were reiterated in a study by Jailall (1998) on differentiated supervision in school districts across the United States. A total of 28 building supervisors or central office administrators from 16 states completed surveys and provided school system documents. Nine individuals participated in follow-up interviews. The purpose of the study was to understand how supervision practices were promoting professional growth of teachers through a differentiated supervision model.

Participating school districts were selected based upon prior research indicating use of differentiated supervision within the system, and they represented 68% of the pool of potential participants.

All respondents stated their district included a self-directed component within the differentiated supervision framework. Respondents that considered their district's self-directed development program effective attributed the following factors to its success: the program was developed with teacher input, program design was effective, teachers were highly motivated, the district supported the program, quality leadership at the school level was provided, adequate resources (time, materials, and training) were provided, teachers were mature and skilled and the school culture supported the program. The key factor cited for success was the program catered to the individual interests of teachers. Factors noted to inhibit success were lack of resources and inadequate teacher maturity or skill level. Of the participants, 25% reported self-directed development to be highly effective in improving teacher performance in the school district, and 71% reported it to be moderately effective.

Corabi (1995), as a system level administrator and professional development committee member, studied the self-directed professional development program implemented in his district. Using case study methods, he sought to discover if teacher attitudes towards professional growth were indicators of the benefits of staff development. Participants included 23 teachers representing core academic disciplines, regular and special education and elementary, middle and high schools. Corabi analyzed data from three individual or group interviews with each participant, interviews with participants' principals, documents developed for the professional development program,

debriefings, questionnaires, surveys, observational records, self-appraisal records, and personal evaluations.

Corabi found that being able to self-direct their learning was a source of professional satisfaction, motivation and empowerment for the teachers, whether working individually or collaboratively. Learning goals were based upon a variety of factors, such as interest, implementation of new programs and ability to secure resources. Teachers valued principal support and feedback, and felt it created a nonthreatening atmosphere for risk taking. Participants felt that self-directed learning was meaningful as well as valuable to their current assignment, and it provided a foundation for future learning. Additionally, teachers identified specific skills they acquired during their learning. In terms of improvement, teachers felt a need to be better prepared for the self-directed professional development program.

Craft-Tripp (1993), like Corabi, studied a self-directed professional development program, albeit the feasibility and effectiveness of the model as a form of evaluation. Using a mixed methods study, a treatment group of 20 special education teachers was compared to similar, control group of 20 special education teachers. The treatment group received a total of 10 hours of staff development across the school year in the following areas: evaluation systems, self-directed learning as a professional development option, competencies of the special educator, identifying meaningful goals and evaluating the self-directed staff development model as a form of teacher evaluation. A manual for use during the training was given to participants, research articles were discussed and opportunities for professional dialogue amongst the teachers were provided. Participants selected professional development goals and discussed them with their principals in

individual conferences. Goals were implemented throughout the school year, and at the close of the school year, teachers and principals once again held conferences to discuss the goals. In addition to addressing their goals, each teacher kept a log of their experiences and time spent on the goal.

Qualitative data was gathered in the form of treatment group participant interviews, interviews with principals of teachers in treatment group, researcher log, participant logs and surveys. Upon analysis, several benefits of the program were noted. Teachers and principals reported that the self-directed professional development program promoted professionalism among teachers. As well, the program allowed flexibility in goal setting, and therefore related directly to job functions. The facilitator was not required to be an expert in the teaching area. Using a panel of experts in a blind evaluation process, the research noted the quality of goal setting changed for the treatment group after participation in the program: goals were more meaningful, relevant and challenging, but goals were less clearly stated and measurable.

Summary

Teachers described meaningful staff development as self-directed, and the professional development activities of self-directed learning as intellectually challenging, occurring over time, relevant to their professional interests and roles and as a factor in classroom change. The benefits of self-directed professional development programs were: addressed the need to grow, promoted professionalism among teachers, individualized to needs and interests, allows for choice, teachers had input, teacher motivation increased, teachers felt empowered to direct their learning and the facilitator does not have to be an expert in the specific goal area the learner has chosen. Factors that contribute to

successful programs include support from school and district level administrators, adequate resources (time, materials, and training), supportive school culture and adequate teacher readiness for self-directed professional development. Factors inhibiting success of programs include lack of resources (time, materials, and training), inadequate teacher readiness and preparation for self-directed professional development.

Summary

Action research and self-directed learning are similar frameworks for staff development in that they both provide for teacher learning adapted to individual needs and interests, development of a sense of empowerment and professionalism, learning directly applicable to the classroom and processes for initiating change. For both frameworks, a knowledgeable facilitator is necessary to instruct adult learners in the procedures of the learning format. Factors contributing to success in both frameworks are support from administrators, sufficient time and materials to carry out learning plans and training in the learning format. As the key factor, time to adequately engage in the learning process, both during and beyond the workday, highly impacts teachers' experiences with both programs. As well, participation in professional dialogue during the learning process, either with peers or supervisors, is valued as opportunity for personal growth and development within these frameworks.

In contrast, the approaches of action research and self-directed learning within a staff development program vary somewhat. While self-directed learning provides open choice in the methods the teacher will employ in the learning process, action research dictates a cyclical research approach. As a benefit of a defined process, action research inherently incorporates evaluation of learning, whereas self-directed learning does not.

An individual's self-directed learning project does not preclude using action research as a framework for personal development, as any style of learning can be incorporated into its paradigm. As well, as Feldman (1998) demonstrated with enhanced normal practice, action research methods can be modified and still be effective in bringing about learning and change. The facet of both action research and self-directed learning left unexplored is the juncture at which the two meet.

The Current Study

The current study was that of investigating the experiences of teachers engaged in a school level, staff-development-unit-bearing staff development program (Georgia State Board of Education Rule 160-3-3-.04, 2000) that combines the frameworks of action research and self-directed learning. Self-directed learning in a group situation as suggested by Knowles (1975) and the action research process defined by Calhoun (1994) were combined and implemented in an 8-week staff development program. In the program, participants designed, implemented, and evaluated learning projects (Tough, 1971, 1979) focused on improvement of job-related knowledge and skills as they applied to school-wide goals (Sparks & Hirsch, 1997; National Staff Development Council, 2001).

CHAPTER 3
SELF-DIRECTED STAFF DEVELOPMENT PROGRAM
BASED UPON ACTION RESEARCH

The staff development program through which teachers' experiences were studied is based upon the frameworks for self-directed learning and action research presented by Malcolm Knowles (1975) and Emily Calhoun (1994), respectively. The action research cycle was superimposed upon Knowles's format for an 8-week self-directed learning program conducted within a group (see Appendix C). Teachers self-directed a learning project of their choice while progressing through stages of the following cycle: identifying responsibilities, identifying focus, defining the problem, planning for self-directed study, and self-directed study.

This chapter is divided into three sections. First, the context of the staff development program is described. Next, learning projects are discussed. And in conclusion, stages of the program cycle are related.

Context

Teachers' self-directed learning was facilitated within a group context through the staff development program (Knowles, 1975). Program participants met once weekly for 2 and a half hours across 8 weeks, for a total of 20 contact hours—the equivalent of two staff development units. Class sessions were conducted in a public school's media center. Instruction in self-directed and/or action research methods was conducted for approximately 20 to 30 minutes of each session as advocated by Knowles. Participants

worked on their self-selected learning projects for the remainder of the class session, with the exception of approximately 15 minutes throughout the session during which participants reflected on learning in response journals (Auger & Wideman, 2000; Feldman, 1998). As Knowles recommended, a climate of warmth, respect, support, and trust was established, and it was assumed the learners would need assistance in becoming proficient self-directed learners (Knowles, 1975).

Learning Projects

Learning projects were defined by Tough (Kasworm, 1992) according to six characteristics. They are created by a question or goal. Understanding is often private and evolving. The project is dynamic in that it may involve many changes in direction. Learning usually occurs in episodes and is focused for a period of time. The learner creates, conducts, and evaluates the learning.

Learning projects were developed within principles of action research. That framework included five basic phases described by Calhoun (1994): (a) identification of an interest area or problem, (b) collection of baseline data, (c) organization of data, (d) interpretation of data as related to interest area or problem, and (e) implementation of an action plan in response to data. While teachers were not expected to conduct research, this format served as a planner to aid adults in facilitating the learning project. Participants were provided with a written copy of the planner, which henceforth will be called the learning plan template.

The guiding structure of the learning plan template (see Appendix D) included four broad phases: identifying focus, defining the problem, planning for self-directed study, and self-directed study (Calhoun, 1994; Glatthorn, 1994). When identifying the

focus, emphasis was placed upon selecting an interest or concern that was directly related to the individual's responsibilities and school goals (Calhoun, 1994). In defining the problem, desired goals, pre- and post-project assessments, and indicators of achievement were described (Calhoun, 1994). Planning for self-directed study included identifying a mode for study, an organizational method, and the timeframe for completing the learning project (Calhoun, 1994; Glatthorn, 1994). Self-directed study was the implementation of the learning project and encompassed pre-assessment, data gathering, translating knowledge and skills into an action plan, implementation of the action plan, post-assessment, interpretation of results, and a statement of impact of development in the focus area (Calhoun, 1994). Participants retained the flexibility to modify components of phases as required by their individual projects.

Staff Development Program Cycle and Stages

Through direct instruction (Knowles, 1975), whole group discussion (Auger & Wideman, 2000; Feldman, 1998; Knowles), individual reflection (Auger & Wideman; Feldman) and written prompts (Knowles) on a learning plan template (see Appendix D), participants were guided through the cycle stages (Calhoun, 1994). During Session 1, participants identified their professional responsibilities. In Session 2, they identified a focus, defined the problem, planned for self-directed study, and determined research/data gathering strategies for self-directed study. Within Session 3, participants completed two sections of self-directed study: pre-project assessment and summary/interpretation of pre-project assessment. During Session 4, participants worked independently on research/data gathering. Session 5 included interpretation of research/data gathering and translating new knowledge into a plan to meet goals. Session 6 included further work time for

translating new knowledge into a plan to meet goals. By the close of Session 7, participants reflected upon implementation of plan to meet goals. In the Session 8, the post-project assessment and summary/interpretation of post-project assessment were completed, and projects were presented to the whole group.

Each stage of the staff development program cycle was composed of specific concepts and activities. The following section presents a detailed description of the activities corresponding with each stage of the cycle in the order they occurred during the program. Activities are related with their stages in the following order: identifying responsibilities, identifying focus, defining the problem, planning for self-directed study, and self-directed study.

In the identifying responsibilities stage, participants generated lists of professional duties in the areas of instruction, administration, management/discipline, and other. Through the identifying focus stage, an interest or growth area was selected, rationale given for selecting the area, and the direct relation to professional responsibilities was described. As components of the defining the problem stage, participants listed goals they hoped to accomplish as a result of study in the focus area, identified processes for assessing pre- and post-project levels of performance, and identified indicators of success in achieving project goals. The planning for self-directed study stage included selecting the mode for study (self-instruction, cooperative learning, team learning, or other), determining a method for organizing data and resources, and determining the timeline for completing the project. The self-directed study stage was broken into substages, which each included a variety of concepts and activities. Substages of self-directed study included: research/data gathering, pre-project assessment, summary/interpretation of pre-

project assessment, interpretation of research/data gathering, translating new knowledge/skills into plan to meet goals, implementation of plan to meet goals, post-project assessment, and summary/interpretation of post-project assessment.

During the self-directed study stage of the program cycle, the self-selected learning project was actually conducted. Substages of self-directed study occurred in three basic phases: data gathering, translating knowledge into an action plan, and assessing learning. Each substage was composed of a variety of steps.

The first phase of self-directed study included research/data gathering, pre-project assessment, summary/interpretation of pre-project assessment, and interpretation of research and data gathering. The research/data gathering stage included listing topics and key words to use in study of focus area, identifying methods for gathering information (e.g., professional journals and books, on-line research, observations, etc.), and identifying areas where assistance may be needed in data gathering. The pre-project assessment stage involved listing the results of pre-project assessment, so that a baseline for learning and/or implementing the project was established. The assessment could have been formal or informal, qualitative or quantitative, as the learner deemed appropriate to measure project goals. During the summary/interpretation of pre-project assessment stage, the learner summarized the implications of the pre-study assessment, determined if study in the focus area was still appropriate, and then refined the project if necessary. As a part of interpretation of research/data gathering, the learner summarized the most significant findings of study in the focus area, and then discussed opinions regarding the information gathered.

The second phase of self-directed learning included translating new knowledge/skills into a plan to meet goals. Translating new knowledge/skills into a plan to meet goals incorporated reflection on the implications of new information on the project goal, identification of actions likely to contribute to goal attainment, and identification of successful outcomes. During this substage, participants also determined how to assess the success of each action, the steps, the timeframe to implement each step, and the resources needed to implement the action plan. During the implementation of plan to meet goals stage, results of actions taken were listed along with the participant's opinions regarding the action plan.

The third phase of self-directed learning included post-project assessment and summary/interpretation of post-project assessment. Post-project assessment included summarizing the type of assessment used, noting whether it was that originally intended or a different assessment, and describing the results. In concluding the final substage, summary/interpretation of post-project assessment drew the project to a close through reflection on results of the post-project assessment, description of progress in relation to indicators of success previously identified, discussion of implications, identification of new growth or interest areas, and summarization of impact of development in the focus area on ability to carry out professional responsibilities.

Summary

The self-directed staff development program incorporating principles of action research was offered as a credit-bearing professional development opportunity. Participants completed a learning plan and conducted a learning project of their choice

based upon school and personal goals. Upon completion of projects and the program, participants evaluated their projects and presented them to the whole group.

CHAPTER 4

METHODOLOGY

The purpose of this study was to explore the perspectives of teachers participating in a self-directed staff development program that utilized principles of action research. The researcher specifically attempted to discover what beliefs teachers formed and what meanings they assigned to the physical, mental, and emotional experiences they encountered. Further, she attempted to understand what meanings the teachers assigned to the staff development program.

This chapter contains a discussion of the theoretical framework guiding the study, the context of the study, data collection procedures, methodological framework, analytical procedures, and a researcher subjectivity statement. Symbolic interactionism is the theoretical framework upon which the study was designed. As a methodological approach compatible with symbolic interactionism, grounded theory was utilized in collection, analysis, and presentation of data. Reliability, validity, and control of bias will be addressed within the discussion of grounded theory methodology.

Theoretical Framework: Symbolic Interactionism

The term *symbolic interactionism* originated with Herbert Blumer, and it represents a framework for studying group life and conduct of humans (Blumer, 1969). Blumer stated that symbolic interactionism is based upon three premises: a person acts upon things based on the meanings those things have for the person; the meanings of things derive from social interactions between the person and other people; and as a

person interacts with things, he interprets and modifies meanings of those things.

Through “a process of interpretation” (Blumer, p. 5), the person recognizes the thing toward which he is acting and determines that it has meaning. As the person internally communicates with himself, meanings of things are checked, interpreted, and modified according to the situation and action to be taken. In essence, an individual’s experience is based upon his interpretation of the meanings of things pertaining to the experience.

Blumer (1969) grounded symbolic interactionism on several “root images” (p. 6): nature of human society or human group life, nature of social interaction, nature of objects, the human being as an acting organism, nature of human action, and interlinkage of action. The nature of human beings is to engage in action, whether individually or collectively, and actions are carried out in relation to the situation in which the person or persons is operating. The nature of social interaction is interaction between members of a group or society, and as such, individuals process the symbolic meanings of what other members are doing and fit their own activity into the situation. The nature of objects is as products of symbolic interactionism, and the meaning of an object is based upon the conception a person has drawn for it. Objects are classified in three categories: physical (e.g., book, chair), social (e.g., friend, president), and abstract (e.g., beliefs, ideas). The idea of the human being as an acting organism provides that not only can a person be the object of his own action, but that while awake, he is continuously noting matters in relation to himself. The nature of human interaction, whether done adequately or not, requires a person to design action, rather than merely respond, to objects and situations encountered. Interlinkage of action represents a joint action, made up of individual actions, by members of a collective group. Joint actions develop out of previous actions

taken by group members, and they cannot be understood outside the context of those previous actions. As with joint action, Blumer's root images must be viewed collectively to understand the essence of symbolic interactionism.

In regard to empirical study, Blumer (1969) contended that, by design, symbolic interactionism requires that data be gathered from within the social world being studied. In the case of this study, that required at minimum teachers being observed and interviewed while participating in the specified staff development program. As opposed to scientific inquiry, which demands definition of a problem and hypothesis statement in advance of study, followed by hypothesis testing during study, exploration within a symbolic interactionist framework conversely allows for familiarization with the social world during the study, and through simultaneous analysis, progressive definition of the problem throughout the research process. During study, data are continuously explored, and problems noted within the social world are delineated and refined as data are analyzed. Connections between data may be made by reflection or by statistical analysis, but in either case concepts emerge through methodical study, "through intensive focused examination of the empirical content" (Blumer, 1969, p. 43). In concluding a study, findings are to be interpreted so that they may be related to theory or situations beyond the immediate group members or social world studied, but while representing findings in context of the social world studied.

Blumer (1969) noted that, as human beings, researchers will inevitably insert preconceived ideas about the research situation into their study. Those preconceived ideas may relate to the social world under study, theoretical notions, beliefs of other researchers, or any other number of objects. Blumer contended the natural inclination to

do this could be countered by “a conscientious and continuous effort to test and revise one’s images” (p. 37). Basically, a researcher must recognize his own subjectivities and seek to minimize their impact on the study at hand.

In summary, a researcher conducting study within the symbolic interactionist framework accepts as given several notions about human beings. First, individuals act upon a situation based on their interpreted meanings of objects within the situation. Meanings of objects arise out of interaction with other people and communication with oneself. Meanings of objects may be modified, and groups of individuals may act in conjunction. In order to study individuals or groups, the researcher must conduct research from within the situation. As a human being, the researcher will import his own preconceived beliefs into the research, but with continuous, careful study of data, researcher beliefs can be refined so as to have a lesser impact on data collection and analysis.

The symbolic interactionist framework guided this study on several accounts. As the facilitator of the staff development program in which the teachers being studied are participating, the researcher studied the experiences of teachers from within the social world of the program. From participants’ written reflections, participants’ learning plans, interviews with the participants, and audiotape recordings of staff development sessions, the researcher analyzed the meanings participants assigned to the physical, social, and abstract objects associated with the staff development program. As well, individual and group actions in relation to the program were observed by the researcher as participants engaged in paired and whole group discussion and worked independently on learning projects. As data were collected, concepts of importance to the participants were

analyzed. At the close of the study, findings were discussed in the context of the staff development program studied, but also in relation to the extant literature.

Context of the Study

In this section, the context of the study is presented. First, the staff development program is briefly described. Next demographic and background information on the school in which the program took place is provided. Finally, the participants are described, along with selection methods.

Staff Development Program

The staff development program employed in this study (described in chapter 3) began the first Wednesday in February 2002, and it concluded the last Wednesday in March 2002. Sessions were conducted in the school media center due to the availability of multimedia resources and ample working space; they began at 4:30 p.m. and concluded at 7:00 p.m. Five minutes before each session started, an announcement was issued over the school intercom system. Typically, at least two of the participants would arrive to the session between 10 and 15 minutes late. Each of the eight weekly sessions included three activities: direct instruction, reflection both within a group and individually, and independent work on a self-selected project.

The schedule for session activities as listed in the participant resource notebook (see Appendix E) was followed, with two exceptions: activities within a particular session were sometimes presented in a different order, and small group discussion was omitted. The reason for the first deviation was the tardiness of participants. Since the group consisted of only five teachers, group lessons and group discussion were postponed until the majority of or all participants arrived. The reason for this was that dialogue

among participants increased when more participants were present. In reference to the second deviation, again the group only comprised five teachers, so all participants were provided and exercised the opportunity to express themselves during whole group discussion. Small group discussion had been designed into the program to achieve this end, and as such two distinct opportunities for sharing were unnecessary.

Site

The staff development program was conducted at a suburban middle school in the Gwinnett County Public School System. Gwinnett County, Georgia, is considered part of the metro Atlanta area. At the time of the study, the selected middle school had been open for 15 years, served over 1,800 students, and employed over a 170 staff members. Approximately 20% of the student body spoke English as a second language, and over 30% of students received free or reduced lunch.

Of over 170 staff members, 130 were certificated personnel. Of the 130 faculty members, 15 were certified and employed as administrators, counselors, and media and technology experts. Approximately 115 staff members were certified and employed as classroom teachers. Teachers were assigned to either sixth grade (23), seventh grade (21), eighth grade (22), an exploratory class (20), a special education class (22), a gifted class (5), or an English-Speakers-of-Other-Languages (ESOL) self-contained class (2). Each teacher taught four classes in their assigned content area(s) and one reading class. Sixth grade teachers were responsible for teaching two content areas, while seventh, eighth, exploratory, and special education resource teachers were responsible for one content area. Teachers of self-contained special education and ESOL classes were responsible for

instruction in the four academic (math, language arts, social studies, science) content areas.

Experience and education of the 130 faculty members was broad and varied. Years of teaching experience ranged from 0 to over 20. Many individuals came from business and service sectors to education as a second career. Educational training ranged from bachelor's degrees to master's degrees to specialist's degrees, with one assistant principal and one teacher holding doctorates. Approximately 6% of the teachers were bilingual. A little under 5% of nonadministrative faculty held certification in educational leadership, and two teachers were pursuing a doctorate in education.

During the 2000–2001 school year, school administrators required teachers to attend staff development sessions. Session content was determined by the school administrators and was based on the local school plan for improvement. Content and presentation were not adapted to individual learners' needs, as all staff members were presented the same sessions. Staff development sessions were conducted once weekly for approximately 45 minutes during teachers' planning time. Special education and exploratory teachers attended the session during before-school planning, and sixth, seventh, and eighth grade teachers attended sessions during their grade level planning period. In addition to the whole school requirement to attend weekly staff development, new teachers were required to attend monthly staff development sessions during before-school planning time. As an optional, after-school staff development program, Spanish was offered; but instruction only addressed Latino cultures. In general, with the exception of technology training, staff development during the 2000–2001 school year was presented didactically, with little learner input or involvement.

After hearing teachers' requests for a change in staff development and discussing adult learning needs with the researcher, the school principal committed to reorganizing the school's staff development program for the 2001–2002 school year. His staff development program plan included providing a "cafeteria plan" of choices, based on needs assessment data provided by certificated personnel. As an after-school staff development option, the self-directed staff development program based upon action research was to be offered to all certificated personnel.

Although the cafeteria plan of choices was presented, teachers were still required to attend grade level staff development sessions during their planning time. Further, in the fall of 2001, school administrators also related state mandates for staff development that teachers were expected to meet. As of the 2001–2002 school year, all middle school teachers were required to complete a specific 50-hour technology course and an additional 50 hours in assessment and instruction of middle school reading and writing. Due to voluminous teacher requests for the state to rescind the reading and writing staff development requirement, as this training is included in teacher preparation programs, the requirement was retracted in the spring of 2002. Many teachers in the school, though, had already enrolled in and completed half of the reading and writing staff development program by this time.

Besides the new staff development requirements placed upon teachers, many new initiatives were also mandated within the school. In addition to their regular academic course load, all teachers were required to develop a curriculum for and teach a 45-minute reading class. All teachers were also required to learn and use an electronic grade book that feeds data into a statewide database. As part of a \$1.5 million dollar grant the school

earned to initiate data-driven organizational change, all staff members were required to complete several hundred survey questions and participate in qualitative interviews. And lastly, based on results from the survey questions, all faculty members were assigned to committees responsible for implementing the changes recommended from the study.

While the administrators were taking progressive steps to improve the school, teachers generally reported feeling overworked. A group of teachers serving on the Principal's Leadership Committee brought this report to the principal, and the administrative team made efforts to show their appreciation by providing privileges such as an occasional jeans day or by putting chocolate candies in teachers' boxes. Expectations of teachers, however, were maintained. And the pervasive response of teachers to demands upon their time, whether optional or not, was one of disdain.

On the contrary, collegial support among teachers was strong. From the study based upon the surveys and interviews, this peer support was listed as one of the school's greatest assets. Based upon the data, in this culture of diversity and high expectations, it appears teachers banded together to support one another both professionally and personally.

Participants

As the self-directed staff development program based upon action research provided for learning tailored to the individual's needs, the program was offered as a staff development option to all 130 certificated faculty members. An invitation to participate was offered verbally at a faculty meeting and in writing through intraschool e-mail. Through impromptu conversation, some individual teachers were extended a personal

invitation to attend the staff development program. All five teachers that volunteered for the program had received a personal invitation.

Because of attendance requirements, invitations to participate in the program were ceased after the first session. System level mandates for receiving staff development credit require that participants are in attendance for 80% of contact hours. As the staff development program is comprised of 20 contact hours, and each session lasted 2 hours and 15 minutes, technically teachers could not be granted staff development credit if they missed the first session and even one additional session. Participation in the staff development program and study was optional, and participants were free to withdraw at any time. While no participants formally withdrew, one participant became ill and did not return.

Five teachers comprised the group in the study. They all were asked to select pseudonyms by which to be referred during the study. The first participant, Sally, was a seventh grade math teacher with 8 years of experience. She transitioned into a job as a math specialist just before the first staff development session. The next participant was Lily, a bilingual paraprofessional within an ESOL classroom. Before coming to the United States, she was a high school language teacher for 14 years. The third participant was Troy, teacher of the in-school suspension class. He had over 30 years experience in education, and most of that was as a school administrator. He retired from leadership and took a teaching position. The fourth participant was Dane, a first year teacher being trained through the state's alternative teacher preparation program, Teach Georgia. He was hired to teach students with emotional and behavior disorders based upon prior employment in a mental hospital. The final participant was Cher, a sixth grade language

arts teacher. She had over 16 years experience and had taught in both elementary and middle schools. Table 4.1 represents the participants self-selected projects and the results of their learning.

Table 4.1

Description of Participant Projects

| Participant and description | Project | Outcome |
|--|---|---|
| Sally New in math specialist role Former seventh grade math teacher for 8 years Eight years experience | Become familiar with algebra tiles for use in teaching math; utilize a spreadsheet application to determine if the Happy Hopper game is statistically fair; conduct learning through cooperative learning | Did not complete either component of the project; enjoyed cooperative learning despite incompleteness of project and negative interaction with cooperative learning partner |
| Lily Paraprofessional in ESOL classroom for 3 years Former high school language teacher in native country for 14 years | Revise a project called "Coming to America" that is conducted in an ESOL classroom | Completed the project; added components that permitted students to present more personal interests and removed components that could potentially embarrass students |
| Troy Teacher of in-school suspension class Former math teacher and school administrator Over 30 years experience | Create a database that would permit for aggregation and reporting of data on students assigned to in-school suspension; develop attitude regarding cooperative learning | Did not learn the database program, but instead used a spreadsheet application to aggregate data and create charts and tables; reaffirmed dislike for cooperative learning |
| Dane First year teacher in classroom for students with emotional and | Gather and report to peers information on an economy system for use with students with emotional and behavioral disorders | Located two different systems that will be merged together to address positive behavior management and civic responsibility; |

| Participant and description | Project | Outcome |
|---|---|--|
| behavioral disorders Earning teaching certificate through state's alternative teaching program | | participant and peers will present the model to school leaders for approval |
| Cher Sixth grade language arts teacher Former teacher of eighth grade language arts and elementary grades Over 16 years experience | Create a lesson for teaching persuasive writing through letters to peers; become familiar with PowerPoint | Created an instructional unit and evaluative rubrics for researching persuasive topics, developing persuasive essays, and presenting persuasive speeches through use of PowerPoint presentations |

Data Collection Procedures

Data was collected utilizing both quantitative and qualitative measures. The quantitative instrument used was the SDLRS, designed by Dr. Lucy Guglielmino (1978). Qualitative data was collected from journal reflections composed by study participants, learning plans completed by participants, researcher interviews with participants, audiotape recordings of staff development sessions, and researcher observations and reflections collected in a researcher notebook. This section is organized into two parts: quantitative measures and qualitative methods.

Quantitative Measures

The SDLRS was “designed to measure the complex of attitudes, abilities, and characteristics which comprise readiness to engage in self-directed learning” (Guglielmino, 2001b). The assessment is a 58-item, closed-ended questionnaire. The Pearson split-half reliability of the SDLRS is .94, as based upon a 1988 compilation of 3,151 participants’ responses. Fourteen experts in the area of self-directed learning

participated in a Delphi study to identify the characteristics the SDLRS is designed to measure (Guglielmino, 2001b; Confessore & Confessore, 1992a).

As adults' readiness to participate in self-directed learning could change, the SDLRS was administered as a pre- and post-assessment. Scoring of the assessment was conducted by Guglielmino and Associates. In addition, Guglielmino and Associates provided a statistical analysis of individual and group performance on the SDLRS. Data gathered from the post-assessment provided insight into teachers' development as self-directed learners, and therefore their experience with the staff development program.

Qualitative Methods

Qualitative data were collected throughout the staff development program as a means of chronicling the participants' perspectives throughout the study, as the program could have been experienced differently at various times during the 8-week period. Qualitative data were generated by both the participants and the researcher. The participants composed written journal reflections at the close of each staff development session. As well, over the course of the 8-week staff development program, participants devised, implemented, and reflected upon a learning plan for a self-selected learning project. After observing participant dialogue during the first session, the researcher obtained consent from the teachers to tape record their verbal interactions during the remainder of the sessions. In addition, the researcher conducted two interviews with all participants during the staff development program, and a third interview with 4 of the participants within a week after the final session. The final participant exercised her right to refuse the final interview, as she had been ill and missed the last several staff development sessions. Table 4.2 lists the volume of data collected from participants

through journal responses and interviews. Finally, the researcher recorded her own observations and reflections on participants' actions in a researcher notebook.

Table 4.2

Volume of Data Collected from Participants

| Participant | Journal entries collected and their average word count | Interviews conducted and their average word count |
|-------------|--|---|
| Sally | 3 194 | 2 8406 |
| Lily | 7 73 | 3 4777 |
| Troy | 7 111 | 3 10557 |
| Dane | 7 132 | 3 9179 |
| Cher | 8 125 | 3 7145 |

Data collected from participants at every interval throughout the 8-week program provided insight into teachers' evolving perspectives across the duration of the study. To gather the data, at the close of the first two staff development sessions, teachers were prompted to reflect on their experience in the program for approximately 15 minutes. The prompts for these sessions were verbalized and also written on a page inserted in the participants' resource notebooks. The prompts read: "Reflect in a written journal entry three thoughts/perceptions in order to explain your experience with the staff development program. Please provide specific examples to illustrate your points." The prompts in subsequent sessions were given after the group lesson, so that individuals could respond whenever they preferred during the session. Prompts were modified for later sessions to facilitate theoretical sampling (selective data collection to support or refute developing

theory) (Glaser, 1978) for emergent descriptive categories (see Table 4.3). At the end of the eighth session, participants were asked respond to at least three of four prompts.

Table 4.3

Journal Prompts

| Session | Prompts for journal reflections |
|---------|---|
| 1 | Standard Prompt: Reflect in a written journal entry at least three thoughts in order to explain your beliefs, actions, and experiences with the staff development program. Please provide specific examples to illustrate your points. |
| 2 | Standard Prompt |
| 3 | Standard Prompt |
| 4 | Standard Prompt, but only two general responses. Additional Prompt: Are you spending any time outside of class thinking about/working on your project? Why/why not? What are you doing if you are devoting mental/physical time to your project? Please give examples to illustrate your response. |
| 5 | Standard Prompt, but only two general responses. Additional Prompt: Please write your thoughts about/responses to the members of the group. You may talk generally about the group or discuss a particular individual. Please provide examples to illustrate your response. |
| 6 | Standard Prompt, but only two general responses. Additional Prompt: How do you decide when/at what point in learning do you solicit help from others? Please provide examples to illustrate your response |
| 7 | Standard Prompt, but only two general responses. Additional Prompt: Discuss your feelings/thoughts about the future prospects of your project. |
| 8 | Standard Prompt, but only one response Additional Prompt: Learning appears to have been an emotional experience at times (frustration, disappointment, excitement). Talk about how your emotions have been involved in your learning experience. |

| Session | Prompts for journal reflections |
|---------|--|
| | <p data-bbox="488 296 1382 401">Additional Prompt: Often clarifications were requested when you worked with the learning plan. Please discuss your thoughts about the learning plan.</p> <p data-bbox="488 459 1403 598">Additional Prompt: Can you talk about the time you spent on your project outside the staff development sessions? Can you talk about how the staff development has impacted your life? How your life has impacted the staff development program?</p> |

In completing journal entries, participants were given the option of writing the response by hand or composing them within a word-processing program. All chose to handwrite them. One participant, a nonnative English speaker, asked to complete the journal responses at home so that she would have time to select the language most appropriate to express her thoughts. The researcher analyzed responses during the week in which they were collected and used findings to direct further theoretical sampling. Beyond simply providing data, prompting adult learners to reflect and elaborate upon their frames of reference as well as learn new frames of reference leads them to become autonomous thinkers and “liberated learners,” a goal of adult education, Mezirow (2000) contended.

Participants were given a resource notebook (Craft-Tripp, 1993) for use during the staff development course (see Appendix E). In addition to journal prompts, handouts, and other resources, a learning plan template was included in the notebook. The learning plan was designed to prompt participants through developing, implementing, and assessing a learning project. While learning plans were not to be evaluated, data was gathered from them in order to gain insight into teachers’ experiences in the staff

development program. In addition, data gained from the learning plans was served to guide theoretical sampling.

Through theoretical sampling (Glaser, 1978) based upon data gathered from participants' reflective journals, learning plans, and audiotape recordings of sessions, general interview prompts were devised. Every interview began with the prompt, "Can you talk about your thoughts and feelings regarding the self-directed staff development program?" Questions thereafter derived directly from the participants' verbal responses, journal responses, the learning plan, taped dialogue of sessions, and observations made by the researcher. Typical follow-up questions fit these patterns: (a) "When _____ happened, you _____. Can you talk about that?"; (b) "In your journal entry you stated _____. Can you elaborate upon that?"; and (c) "In one of your interview responses you said were concerned that _____. Can you share your thoughts and feelings about that a little more and give me an example so I can better understand what this meant to you?" Interviews were audiotaped by the researcher and transcribed by a contracted typist. In order to maintain confidentiality of participants, pseudonyms were used during the interview and in labeling the cassette tapes.

Interviews were conducted within a specific set of guidelines. They took place in a location of the participants' choice and at a time they offered as convenient. Some interviews were conducted face-to-face within the teachers' or the researcher's classrooms. Other interviews took place over the phone to accommodate teachers' schedules and personal lives. The initial prompt was open-ended. During the interviews, while eye contact, nods, and verbal affirmations were given to indicate full attention was afforded the participant, the interviewer refrained from commenting upon responses.

Questions simply prompted the participant to elaborate upon actions the researcher observed or verbal responses given or to provide detail regarding written reflections and learning activities. As appropriate, prompts included actual language used by the participant (Strauss & Corbin, 1998). Leading and closed-response questions were avoided in the questioning sequence. One participant became tearful when responding, and the researcher offered to cease the interview. The participant chose to continue.

After commencement of the study, the researcher gained consent from the participants to audiotape dialogue during staff development sessions. After observing the types of interaction occurring during the first session, the researcher desired to have a verbatim record of teachers' responses to learning and one another (Feldman, 1998). At the beginning of each session through to the close of the group activity, the tape recorder was placed on a table as central to the group as possible. Since the teachers most often sat at the same three tables, the recorder was usually placed on the middle table. When participants began to work on their projects, they spread out to different tables within the same general vicinity, but outside the recordable range of the tape recorder. To capture dialogue and teacher comments, the researcher intermittently moved the tape recorder among work areas of all the participants. If a participant asked the researcher for help, the recorder was moved to that teacher's table to capture the dialogue. Similarly, if the researcher observed a teacher engaged in some action or response that led to theoretical sampling, the recorder was moved to the individual's work area to capture the dialogue between the researcher and the teacher. Tapes were coded with the date and given a sequence number to indicate which part of the session was recorded on the tape. The researcher transcribed the tapes in a two-column format. The verbatim dialogue was

transcribed in the right column, and corresponding observations and notes from the researcher notebook were listed in the left column.

The final form of data collected during the study was researcher observations and reflections recorded in a research notebook. Field notes were taken while participants interacted and engaged in discussion and while they worked with their projects during individual work time. Reflections on direct instruction, whole group discussions, interaction with participants, and other participant behaviors (such as arrival and departure) were recorded also. As data analysis was ongoing throughout the study, theoretical memos reflecting emergence of concepts and developing theory were included in the researcher notebook as well. The researcher notebook was a copy of the participant resource notebook. Researcher notes and reflections were dated and attached within the session section the researcher determined was most closely related to the date she generated them.

While participants engaged in small group discussion and worked with their projects during individual work time, a variety of observational data were gathered. Field notes included descriptions of the setting, people, events, and conversations observed, in addition to the researcher's response to what was observed (Taylor & Bogdan, 1998). Diagrams were drawn to map teachers' self-selected seating arrangements during group activities and independent work time (Taylor & Bogdan, 1998; Wolcott, 1995). Further, how participants allocated their time and their interactions with the facilitator/researcher were noted (Wolcott, 1995). After initial observation of the entire milieu, observation became more focused on participant responses to learning and others in the group, and eventually it was largely concentrated on teachers' actions, responses, and affect when

working on their projects (Angrosino & Mays de Perez, 2000; Glaser & Strauss, 1967, 1999). Observational data were gathered with a focus on the question, “How are teachers experiencing the staff development program?” (Wolcott, 1995).

Before concluding, the dual role of the researcher as facilitator of the staff development program should be discussed, as it impacted the study. In a pilot study of one teacher’s career-long staff development experiences, it was found the role of the facilitator in traditional staff development programs is important to the participant, because the facilitator has the responsibility to meet the participant’s needs as an adult learner and a professional educator (Husby, 2001). In this study, while the facilitator responded to participant requests for clarification of concepts and provided affirmation while they worked, the staff development program was not altered based upon participant responses or data collected. Questions for clarification, as well as researcher responses, were noted in the researcher’s notebook and most often were captured on recordings of the staff development sessions. In order to ensure materials and direction of the staff development program were not impacted by collected data, each session’s agenda and materials will be prepared in advance of the study and placed in the participants’ notebooks (see Appendix E). Staff development sessions adhered to the agenda and only employed materials prepared in advance of the program. As previously discussed, only two deviations from the schedule occurred: rearrangement of activities within a session to adjust for tardy group members, and omission of small group discussion as a session activity.

Finally, since the role as facilitator could impact the role as researcher, the study largely generated and related data depicting the staff development program as perceived

by the teachers. Researcher notes predominantly provided theoretical memos and a procedural audit trail (see Appendix F). Notes gathered during staff development sessions reflected participant behavior, including questions for clarification and responses given as well as descriptions of any deviations from the set agenda.

Conducting Study in the Researcher's Site

Angrosino and Mays de Perez (2000) described “complete member researchers” as “those who study settings in which they are already members or with which they become fully affiliated in the course of the research” (p. 677). Taylor and Bogdan (1998) noted there are particular advantages to conducting research in one’s own site: gaining access is easier, the researcher has a role in the setting, participants are not likely to be as self-conscious around the researcher, and some data are more easily accessed. While acknowledging the benefits of research in one’s own site, Taylor and Bogdan, as a guideline, discouraged novice researchers from conducting research in their own site, due to the tendency of the researcher to take his or her own viewpoints for granted. The authors concluded further, though, “what is more important than neutrality is awareness of one’s own perspective and honesty about where one stands when research findings are reported” (p. 28). The following section will address the researcher’s position in the setting with regard to assumptions and the concept of power.

It has been said that “There is no pure, objective, detached observation” (Denzin & Lincoln, 2000, p. 634), and that, “Fieldwork is characterized by personal involvement to achieve some level of understanding that will be shared with others” (Wolcott, 1995, p. 66). Wolcott recommended the researcher track personal responses to what they observed and experienced. Additionally, he suggested asking, “What do people have to know in

order to do what they are doing (collectively and individually)? How are they acquiring and transmitting information?” (p. 98). These recommendations provide strategies that guide the researcher to not only consider his or her own perspective, but to “see their version of reality as only one out of many possible ways of viewing the world” (Taylor & Bogdan, 1998, p. 28). As such, Wolcott’s recommendations were incorporated into field notes recorded in the researcher’s notebook.

Beyond the researcher’s perceptions of participants and the setting, it is important to note how participants’ perceptions of the researcher may have impacted the study, and further, how they were addressed. Angrosino and Mays de Perez (2000) noted: “People come into interactions by assuming situational identities that enhance their own self-conception or serve their own needs, which may be context-specific rather than socially or culturally normative” (p. 688). Translated to this study, that means while the researcher is a peer of equal status within the larger school setting, she could have been perceived to hold some additional authority or power through her position as facilitator of the staff development program (J. Blase, 2000). J. Blase (2000) described power as the ability to influence others. To address potential issues that could have arisen from participants’ perceptions of a power differential, the following was assured the participants at the onset of the study: credit for participation (staff development units) would be awarded based upon attendance, participants would self-record attendance on a master sheet, participant work would not be evaluated, the researcher would not be evaluated by nonparticipants based upon participants’ comments or experiences with the program, all participant data would be coded with pseudonyms, and all participant data would remain confidential. Overall, it appeared that the teachers were quite comfortable

with the researcher and did not elevate her to a status beyond that of other group members. Their perceptions of and responses to her are discussed in more detail in chapter 5.

In summary, two basic issues were present in conducting research within one's own environment: the researcher's perception of the setting and participants, and the participants' perceptions of the researcher. The researcher's perceptions were addressed through careful observation and questioning of participant behaviors as well as measured reflection on the researcher's response to those observations. Participant perception of the researcher was addressed at the onset of the study by informing participants the researcher would retain no role in granting or withholding credit for the program, nor would the researcher share personally identifiable information resulting from the study. Lastly, the teachers seemed at ease with the researcher throughout the study.

Summary

Each piece of qualitative and quantitative data collected highlighted a facet of teachers' experiences with the program. Journal entries provided an ongoing reflection of their weekly experiences, while interviews provided for reflective thinking outside the actual staff development sessions. Learning plans provided insight into the methods and work of participants during their self-directed study. Audiotape recordings provided a verbatim account of discourse during staff development sessions. Researcher notes illuminated patterns of behavior and recorded actions of engaged learners. Finally, the SDLRS registered data on the development of participants as self-directed learners.

Methodological Framework: Grounded Theory

As a methodological approach incorporated within the theoretical framework of symbolic interactionism, grounded theory was utilized in collection, analysis, and presentation of data. This section focuses upon analytical procedures and is organized in the following order: overview, constant comparative analysis, reliability and validity, and control of bias. Within each section, a discussion of the methods will be presented followed by a description of how those methods were applied in this study.

Overview

Glaser and Strauss (1967) espoused constant comparative analysis as a method for developing grounded theory. The method is built upon generation of conceptual categories and their properties as derived from data. While both researchers agreed that findings and interpretations must stem solely from the data, their methods for analyzing the data differed. Glaser (1992) insisted that categories emerge from data, and rejected all attempts to pursue, or force, dimensions of the properties and categories beyond what is apparent in the data. Strauss and Corbin (1998) on the other hand strongly advocated developing all dimensions of all properties of all categories, to the extent possible. While not aligning with one position or the other, for the purposes of this study, the researcher employed comparative analysis through the Glaser approach to developing grounded theory.

Grounded theory is a method for formulating “a conceptual theory that explains how a problem is continually processed by the participants” (Glaser, 1992, p. 69). Explanations may be simple or complex, but are based upon coded data. Glaser stated, “The goal of grounded theory is to generate a theory that accounts for a pattern of

behavior which is relevant and problematic for those involved” (p. 75). Development of theory is based around a core category, a category that accounts for most of the variation in the pattern of behavior. According to Glaser, the core category is chosen based upon the relationship of its properties to all other categories.

A grounded theory that is well developed, by Glaser’s (1992) criteria, will: fit the realities of the participants in the study, will work in that it explains major variations in behavior, be relevant in that it fits and works, and be modifiable when new data is presented. While it may be verified through the data that the theory fits, works, is relevant and is modifiable, the theory is not proven; it is still a theory. As such, there may be gaps in the theory. If at the end of a study, there is no opportunity to continue theoretical sampling, Glaser concluded, “Gaps are not a failure of the analyst, they are a fact of the substantive scene and are to be treated as such. We all live in worlds where large gaps of meaning and cognition exist all the time” (p. 88).

Constant Comparative Analysis

The constant comparative method of analysis, according to Glaser and Strauss (1967, 1999) employs continual comparison of one piece of data with other pieces of data, and “is concerned with generating and plausibly suggesting (but not provisionally testing) many categories, properties, and hypotheses about general problems” (p. 104). The method is applied through four stages: comparing incidents and categories, integrating categories and properties, delimiting theory, and writing theory. The discussion of constant comparative analysis is organized as follows: coding, properties of categories, integrating categories and properties, theoretical sampling, delimiting the theory, and writing the theory.

Coding

Strauss and Corbin (1998, p. 3) defined coding as “the analytic processes through which data are fractured, conceptualized, and integrated to form theory.” Glaser and Strauss (1967, 1999) noted that to begin coding, the researcher labels, or codes, a piece of data for as many categories as possible. Researchers may construct names of codes themselves or use in-vivo codes, codes derived from the language of participants or the research situation. Regardless of the origin of a code’s name, the code should produce both an image and an analytic conception of the data represented (Glaser, 1992).

Coding of data occurs at two levels: initial coding of data into categories and coding for analysis of relationships between categories (Glaser, 1992; Strauss & Corbin, 1998). To begin initial coding, the researcher reads each line of data and assigns codes to data segments as appropriate (Strauss & Corbin, 1998; Glaser, 1998). A data segment can be a word, a few words, a phrase, a sentence, a few sentences, or even a paragraph (Glaser, 1998). Analysis of data through coding is alternated with data collection to allow for development of emerging concepts (Glaser & Strauss, 1967, 1999; Strauss & Corbin, 1998; Glaser, 1998). Represented chronologically in Appendix F, the following codes were applied to data in this study: (a) content/method learned, (b) comparison to other staff development, (c) do right, (d) evidence of climate setting, (e) facilitator, (f) feelings about learning, (g) learning in general, (h) learning plan, (i) own experience, (j) pressure on self, (k) project, (l) reason for learning, (m) relate learning to role, (n) relating professional research, (o) response to group members, (p) response to learning, (q) self-perception, (r) sense of high achievement, (s) staff development program, (t) time, and (u) use of information.

After sufficient data was collected to develop categories, analysis shifted from coding and comparison of data segments to coding and comparison of categories (Glaser & Strauss, 1967, 1999). It was at this point that the second stage of constant comparative analysis began, integrating categories and their properties.

Properties of Categories

Through comparative analysis of categories, properties of categories begin to emerge (Glaser & Strauss, 1967, 1999). Developing knowledge and description of category properties leads to understanding, or theory, of how the properties are related, and consequently, with further analysis, of how categories are related with one another. Table 4.4 demonstrates how codes were grouped into categories after analysis of Session 1 journal entries. Early in the study, the three primary categories listed on the table emerged, and throughout the remainder of the study were developed by rearrangement and emergence of properties.

Table 4.4

Categories and Their Properties after Session 1

| Intrapersonal experience | Learning experience | Social experience |
|--------------------------|---------------------------------------|---|
| Self-perception | Use of information | Response to group members |
| | Comparison to other staff development | Facilitators (in this and other staff development programs) |
| | Relating learning to role | Do right |
| | Relating professional research | Evidence of climate setting |
| | Staff development program | |

If jointly collecting and analyzing data, the researcher can guide data collection through theoretical sampling to address gaps in the developing theory (Glaser & Strauss, 1967, 1999). While developing theory and analyzing data, the researcher is to focus, not on his own perceptions or perspective of the situation, but on that of the participants (Strauss & Corbin, 1998).

Constant comparison of data segments related to category properties continued until no additional properties of a category emerged, or until saturation was achieved (Glaser, 1998). Collection and coding of data for the saturated category ended, and analysis continued with unsaturated categories. Table 4.5 represents the composition of categories after Session 7, and relates a shift in organization that occurred as a result of comparative analysis. The initial three categories were still present, but the academic category was divided into two sections: prior learning and current learning. As well, each of the categories' properties were further developed.

Table 4.5

Categories and Their Properties after Session 7

| Intrapersonal | Academic prior learning | Academic current learning | Social |
|---------------------------|---------------------------------------|-----------------------------------|---------------|
| Self-perception | Comparison to other staff development | Staff development program/lessons | Group members |
| Sense of high achievement | Learning in general | Learning plan | Facilitator |
| Pressure on self | Relate learning to role | Use of information | |
| Feelings about learning | Own experience | Reason for learning | |
| Do right | Relating professional research | Project | |

| Intrapersonal | Academic prior learning | Academic current learning | Social |
|---------------|-------------------------|---------------------------|--------|
| Time | | Content/method learned | |
| | | Response to learning | |

As more categories became saturated, the researcher approached theoretical completeness and discovery of the core category that accounted for most of the variation in the participants' pattern of behavior. Comparison of Table 4.4 and Table 4.5 reflects the development of the intrapersonal category, which subsequently was identified as the core category.

Development of categories and their properties was aided by theoretical sensitivity and the use of theoretical memos. Strauss and Corbin (1998, p. 46) noted that, "Having sensitivity means having insight into, and being able to give meaning to, the events and happenings in data. It means being able to see beneath the obvious to discover the new." Theoretical memos are researcher notes that describe insights and ideas as analysis is conducted and theory is developed (Glaser & Strauss, 1967, 1999). With both theoretical sensitivity and recording of theoretical memos, researcher reflection is paramount.

In regard to theoretical sensitivity, Strauss and Corbin (1998) stated:

It is our knowledge and experience (professional, gender, cultural, etc.) that enables us to recognize incidents as being conceptually similar or dissimilar and to give them conceptual names. It is by using what we bring to the data in a systematic and aware way that we become sensitive to meaning without forcing our explanations on data. (p. 47)

In developing sensitivity, Glaser (1978) posited that time and patience is necessary, as “significant realizations come with growth and maturity in the data” (p. 18). Glaser (1978) and Strauss and Corbin (1998) suggested using professional literature as a springboard for questioning, but only after the developing theory is fairly grounded in data. Glaser and Strauss (1967, 1999, p. 107) strongly suggested using memos to “tap the initial freshness of analyst’s theoretical notions and to relieve conflict in his thoughts.” As a method of enhancing theoretical sensitivity, theoretical memos have been given considerable attention by Glaser and Strauss.

Theoretical memos are written notes of the researcher’s thoughts regarding data analysis and development of theory (Strauss & Corbin, 1998). Memos can be written directly on collected data, such as field notes and interview transcripts, or they can be organized in some other fashion, as in a notebook or on index cards (Glaser & Strauss, 1967, 1999). Glaser commented in *Theoretical Sensitivity* that grounded theory assumes researchers will be creative in their analysis and that “memos allow creative theoretical forays with the data and concepts” (p. 20).

Copious theoretical memos were recorded by the researcher of this study, and they were recorded in a variety of fashions. When initially coding transcripts, the researcher wrote memos in the margins. Concurrently, a log of data analysis notes was kept to provide an audit trail (see Appendix F). Using a spreadsheet program, data segments were catalogued under the codes to which they were assigned. During this process, the researcher included memos, identified by brackets and underlining, to track reflections on data. Again, these memos were also written in the data analysis log. After approaching saturation of categories, the spreadsheet model was discontinued and a tri-

fold board was employed to manage new data into the emerging theoretical model, and theoretical memos were written directly on the board. The organizational schema on the board was transferred to four sheets of chart paper, and reference numbers for coded data supporting each subcategory were listed. Next the researcher began organizing memos for interrelation of categories. These memos were initially recorded on stick-on notes that could be applied to the chart and rearranged. When data reached the saturation point for interrelation of categories, analytical process notes were discontinued and a notebook was used to organize reference numbers of data segments that supported the connection between categories. Memos were then written in the notebook. The notebook pages were cut into strips so that the memos could be rearranged during final analysis. When the researcher began composing the findings, memos were discontinued and insights were written directly into the descriptions.

In essence, a job of the grounded theorist is to discover properties inherent to categories of data, and through further data collection, to develop category properties to saturation. Theoretical sensitivity to data aids in sufficiently completing the process. Time, appropriate use of professional literature, and composing memos are tools for increasing sensitivity to categories and their properties during data collection and analysis.

Integrating Categories and Properties

Glaser and Strauss (1967, 1999, p. 109) stated, “constant comparison causes the accumulated knowledge pertaining to a property of the category to readily start to become integrated; that is, related in many different ways, resulting in a unified whole.” In the same manner, categories become integrated with one another. Glaser and Strauss

further recommended strongly that data be collected through theoretical sampling while analysis of categories is being conducted, as integration of the developing theory is likely to emerge naturally through this strategy. They noted that emergence of integration can occur without simultaneous analysis and data collection, but the risk of contriving an integration scheme is present when further data cannot be collected to support or refine researcher theory.

Strauss and Corbin (1998) related that clues to how concepts are linked can be found in data, but it is not until relationships are recognized as connections that they actually merge into the developing theory. When data is grouped into a category, the concept related by the category is an abstraction of the collective group's experiences. As properties and categories are integrated, the developing theory should be relevant and applicable to all participants in the study, and should explain in general what is occurring with the whole group under study. Strauss and Corbin (1998, p. 145) qualified, "if theory building is indeed the goal of a research project, then the findings should be presented as a set of interrelated concepts, not just a listing of themes" and it should represent the voices of many. They contended that it does not matter how relationships are presented, whether as hypotheses, in narrative form, or as explanatory statements, so long as categories are integrated into a larger theoretical scheme.

Central to grounded theory is the identification of a core category that accounts for the majority of variation in the pattern of participants' behavior (Glaser, 1998). The central category may be selected from among the existing categories, or if the researcher determines that none of the categories accounts completely for variation in behavior, he may select a more inclusive term under which all categories fall (Strauss & Corbin,

1998). Strauss and Corbin provided the following six criteria for selecting the core category: (a) it must be central, in that all other major categories can be related to it; (b) it must appear frequently in the data, in all or almost all cases; (c) the explanation evolves from relating categories, and data is not forced; (d) the central category is abstract enough to be applied to other substantive areas; (e) as the concept is refined through further analysis and integration, its explanatory depth and power increases; and (f) the concept should explain the main points in the data as well as variations, including contradictory or alternative cases. Strauss and Corbin suggested writing a storyline, creating diagrams, and reviewing or sorting memos as strategies for identifying the core category that integrates the developing theory.

In this study, the researcher predominantly used memos and tables to manage data and represent their connections. In determining how to present the connections conceptually, the researcher reviewed the methodological literature for ideas. As diagrams and stories were suggestions, the researcher chose to draw a descriptive picture representing her understanding. A southern belle wearing attire for a ball was drawn in the center of the paper to represent an intrapersonal viewpoint. At the top of the paper a ballroom was drawn to represent the goal. Onlookers were added around the belle to represent the social arena. At the bottom of the paper another ballroom was drawn to represent her prior experiences and goals. After analyzing the implications of these various pictures, a simple diagram was drawn to represent the connections. The intrapersonal category was elevated to the status of core category and was represented at the top of a flow chart. The academic and social categories were considered equivalent in their impact on the intrapersonal category and were drawn parallel underneath the

intrapersonal category with arrows stemming from each of these categories to the intrapersonal category. This diagram represented the final interrelation of categories and is presented in chapter 5.

In summary, integration of properties and categories aids emergence of theory to explain the behavior of participants under study. Through constant comparative analysis, similarities and differences between categories were illuminated, and relationships that integrated concepts, and ultimately explanation of teacher perspectives, become apparent to the researcher. As the categories, and overarching theory, become integrated, the core category that accounts for variation in patterns of behavior was identified and explained.

Theoretical Sampling

Glaser and Strauss (1967, 1999, p. 45) defined theoretical sampling as, “the process of data collection for generating theory whereby the analyst jointly collects, codes, and analyzes his data and decides what data to collect next and where to find them, in order to develop his theory as it emerges.” While initial data collection was based upon the researcher’s beginning perspective of the participants and situation under study and gave the research a starting point, theoretical sampling called for calculated data collection to address gaps discovered in the emerging theory during data analysis. As data was collected, it was coded for its relation to various categories and their properties (Glaser, 1978). When a category or property was saturated and integrated into the developing theory, theoretical sampling for additional data related to the category or property was ceased.

Theoretical sampling is greatly enhanced by the researcher’s degree of theoretical sensitivity to concepts embedded in the situation under study. While the emerging theory

is to be grounded in data, the researcher's background experiences, training, or education may sensitize him to certain types of questions that can be asked of the data (Glaser, 1978). Questions of the data lead to emergence of categories and properties and eventually to further purposeful data collection, or theoretical sampling. Additionally, through theoretical sensitivity and theoretical sampling, Glaser (1978, p. 38) noted, "the researcher can made shifts of plan and emphasis early in the research process so that the data gathered reflects what is occurring in the field rather than speculating about what cannot or should have been observed." He added that by continuing to theoretically sample based upon analysis, analysis remains closely aligned to data.

During this study, analysis occurred concurrently with data gathering. Each week, new data was analyzed and the descriptive model was revised accordingly. In order to develop categories, theoretical sampling was employed. Theoretical sampling was first conducted in participant interviews. As of the fourth session, it was done through journal prompts and discourse during staff development sessions. The final sampling was conducted through closing interviews with the participants.

Delimiting the Theory

Delimiting the theory functions to increase the generalizability of categories and properties as well as the grounded theory. In delimiting, or broadening, the conceptual power of categories, a researcher through constant comparative analysis may reduce a number of categories into a smaller set of more conceptually abstract concepts (Glaser & Strauss, 1967, 1999). As a result, the grounded theory may be generalized to situations beyond the immediate one under study. As the theory is refined and becomes more tightly bound through delimiting, coding and categories become more select and focused.

In addition to increasing opportunities for generalization of theory, delimiting also creates an economical process for analyzing data (Glaser & Strauss, 1967, 1999). By sampling and coding for a reduced number of categories, the researcher can quickly integrate or discard new data segments based upon their relation to the refined set of key categories. Upon theoretical saturation of a category, data analysis becomes even more efficient as data segments are discarded unless they indicate a new aspect of the category. Theoretical sampling further serves to focus and reduce data collected to develop a smaller set of key categories. This process was managed in this study through shifts in data organization. As previously described in relation to theoretical memos, initially all coded data were catalogued in a spreadsheet. When the categories were reaching saturation, organization of data was transferred to a tri-fold board. Through theoretical sampling new data was collected, but only new data extending upon the descriptive model was coded and added to the board.

On the whole, through delimiting the theory, a researcher broadens the applicability of concepts embodied in a theory and implements a more efficient process for analyzing data. As a procedure, delimiting the theory serves to reduce and make more abstract the concepts included within a developing theory. Further, delimiting draws data analysis into a more efficient process, as data is compared against progressively less and less numbers of unsaturated categories. Within grounded theory methodology, conclusion of this stage of data analysis draws the researcher to the task of writing the theory.

Writing the Theory

Glaser and Strauss (1967, 1999) suggested that a researcher begin writing his theory when he is convinced the “analytic framework forms a systematic substantive

theory, that it is a reasonably accurate statement of matters studied, and that it is couched in a form that others going into the same field could use” (p. 113). In presenting a theory, they explained, categories are organized as the major themes. Content of theoretical memos is drawn upon for elaboration of categories and their properties. As necessary, the researcher relies upon coded data to support “a suggested point, pinpoint data behind a hypothesis or gaps in a theory, and provide illustrations” (Glaser & Strauss, 1967, 1999, p. 113).

Glaser (1998) suggested a general format for presenting theory in a paper or book. First, he recommended that the logic inherent to the theory be related and the main problem of participants be described. Next, he proposed addressing the core category and how it accounts for most of the variation in behavior. Discussion of other categories should follow, relating how they function with respect to the core category. Glaser warned that if written discussion of the theory is not focused on the theory’s core relevance then all categories may appear to be of equal importance and, consequently, a misunderstanding of participants’ behavior and their situation may occur.

In order to write theory, one must understand what exactly constitutes theory. Strauss and Corbin (1998) defined theory as “a set of well-developed concepts related through statements of relationship, which together constitute an integrated framework that can be used to explain or predict phenomena” (p. 15). Glaser and Strauss (1967, 1999) contended that a theory must be understandable to sociologists, students, and significant laymen. They also declared that a theory should provide substantially clear categories and hypotheses that can be verified and operationalized in future studies. Theoretical explanations, concluded Strauss and Corbin (1998), not only describe events

but also interpret them to explain “why, when, what, and how events or happenings occur” (p. 18). Further, by the time writing occurs, a grounded theory should fit the situation, be relevant to the participants, and explain the behavior of participants.

Largely, a researcher is prepared to write his theory when the theory comprehensively explains the behavior of the participants studied. Glaser suggested organizing presentation of a theory around the main problem of participants. Theoretical explanations should describe relationships between developed categories and explain how they function. And finally, within the writing of a grounded theory, the criteria of fit, work, relevance, and modifiability should be demonstrated.

Following these recommendations, the researcher applied the criteria of grounded theory the emergent descriptive model. The model was discussed informally with participants after conclusion of data collection (Taylor & Bogdan, 1998). The participants appeared to enjoy discourse about the model and interrelation of categories, and they affirmed, with what appeared delight, that it represented their experiences in the staff development program. As well, the model was shared with nonparticipants in order to gain feedback on its conceptual clarity. When the researcher was assured the descriptive model was clear to significant laymen, in this case a range of educators, writing of the theory began.

Reliability and Validity

While qualitative research does not employ the statistical calculations of quantitative research in determining reliability and validity, Glaser (1992) posited a grounded theory should meet the following four criteria: fit, work, relevance, and modifiability. If a theory fits, its categories are directly related to the data (Glaser &

Strauss, 1967, 1999). Theories that work are meaningful and relevant to the participants studied (Glaser & Strauss, 1967, 1999). Glaser (1992) purported that if a theory fit and worked, it met the criteria of relevance. Finally, a theory should be modifiable as new data are presented (Glaser, 1992). As noted by Glaser (1998) in *Doing Grounded Theory: Issues and Discussions*, “Grounded theory has its own criteria of evaluation ... the criteria that grounded theory ‘works, fit and is relevant’ resolves its legitimacy” (p. 17).

Taylor and Bodgan (1998) addressed issues of reliability and validity in qualitative research in their book, *Introduction to Qualitative Research Methods: A Guidebook and Resource*. They described qualitative research, in contrast to quantitative research, as “systematic research conducted with demanding, though not necessarily standardized, procedures” (1998, p. 9). While meaningfulness of studies, or validity, is a concern of qualitative research, less emphasis is placed on reliability and replicability of studies.

Janesic (2000) noted the question of validity is: “is the explanation credible?” (p. 393). As a method of establishing credibility, she suggested use of audit trails to describe how the researcher arrived at the explanation. Charmaz (2000) stated that the grounded theory framework inherently addresses validity, as close adherence to raw data during analysis and specification of procedures, or rather an audit trail, are central to its methods. Smith and Deemer (2000) said that while there can be “disagreement about the descriptive validity of an account,” (p. 882) theoretically data can resolve the problem, especially if the researcher and participants share common language. One method for preserving the actual language of participants is through use of in vivo codes, or codes drawn directly from participants’ accounts (Strauss & Corbin, 1998). Again, as

previously stated, Glaser and Strauss (1967, 1999) posited that valid theories are directly related to the data (fit) and are meaningful and relevant (work) to the participants studied. In practice, therefore, using in vivo codes and providing an audit trail, inherent features of grounded theory methodology, provide evidence to support the credibility of the researcher's explanation of participants' behavior.

Reliability, or the replicability of a study, is addressed as well through the use of an audit trail and coding (Janesic, 2000). Charmaz (2000) declared, "Systematic application of grounded theory strategies answers the positivist call for reliability and validity, because specifying procedures permits reproducibility" (p. 524). Silverman (2000) claimed, "The crucial requirement is that the categories are sufficiently precise to enable different coders to arrive at the same results when the same body of material is examined" (p. 826). Taylor and Bogdan (1998) suggested the researcher provide ample information regarding research, such as questions asked of data and assumptions made throughout study, to allow readers to discount the researcher's explanation or to understand it within its context. Glaser and Strauss (1967, 1999), for example, recommended writing theoretical memos and data codes directly on interview transcripts and field notes, providing an account of researcher reflection on data and its fit within the larger, developing theory, an account that can be recreated for the reader when the theory is written. In the context of qualitative research, though, even with an explicit audit trail and clearly defined codes, Taylor and Bogdan (1998) reminded, "it is not possible to achieve perfect reliability if we are to produce meaningful studies of the real world" (p. 9).

In accordance with these suggestions, the researcher recorded copious theoretical memos in each format offered by the authors and through them tracked development of codes, categories and the emergent theory. Appendix F presents a chronological audit trail of code and category development. Within data collection procedures, questions employed in theoretical sampling were described. Finally, the guiding question employed during analysis was related within the presentation of analytical methods.

In summary, according to Glaser (1998), grounded theory must meet its own set of standards: fit, work, relevance, and modifiable. Consistent with grounded theory, audit trails (Janesic, 2000) and systematic coding (Smith & Deemer, 2000; Glaser & Strauss, 1967, 1999) were utilized as methods of establishing the validity and reliability of the study. With these procedures, emphasis was placed upon clearly delineating procedures, so that it could be assured the participants and situation under study were accurately represented by the researcher.

Control of Bias

Taylor and Bogdan (1998, p. 160) noted, “All observations are filtered through the researcher’s selective lens.” This selective lens is known as bias (Glaser, 1998). Taylor and Bodgan recommended that in presenting a study, a researcher describe the perspectives, or biases, he brings to the study rather than attempting to conceal them. They submitted that an understanding of the researcher’s findings requires an understanding of his perspectives, logic, and assumptions. As well, they stated, “Critical self-reflection is essential in this kind of research” (Taylor & Bogdan, 1998, p. 161).

Gergen and Gergen (2000) describe disclosure of biases as reflexivity. By addressing the perspectives he brings to the study, the researcher “relinquishes the

“God’s-eye-view” and reveals his or her work as historically, culturally, and personally situated” (Gergen and Gergen, 2000, p. 1028). In doing so, the researcher attempts to provide a complete account of the situation under study and his relation to it.

Glaser (1998) contended that, by design, grounded theory methods correct for bias when employed by an honest researcher. He explained that while one incident or concept is easily tainted by researcher bias, constant comparisons of multiple categories and incidences produce patterns in the data set less vulnerable to researcher bias. Glaser (1998, p. 143) observed, “Reading and comparing line by line and coding for patterns to be conceptualized tend to neutralize imputing, since it is constantly corrected.”

In essence, control of bias requires honesty of a researcher, both personally and in his work. Taylor and Bogdan (1998) and Gergen and Gergen (2000) suggested disclosure of biases when presenting a study. Glaser (1998) posited that adherence to grounded theory methods, especially line-by-line coding, keeps the researcher close to the data and naturally corrects for bias. Regardless of the perspective taken on controlling for bias, a researcher must continually reflect upon his or her own biases and attempt to minimize their impact on the study at hand.

Researcher Subjectivity Statement

I approached this study with a belief that adult learning theory must be considered when planning staff development for teachers. Whether learning is self-directed or prepared for a particular group, individual needs of teachers must be considered and accounted for in the learning situation. Within my particular school, the setting of which was the context of this study, neither the needs of teachers as individuals or adult learners have been taken into account by school administration when planning and presenting

staff development programs in the last few years. As such, I felt a responsibility to provide a positive and useful experience to teachers participating in the staff development program around which this study is centered.

Early in the school year, I stood in a place of hope as the administration of my school appeared to respond to the call of teachers for a “better” staff development program. I was encouraged that a needs assessment was conducted to determine appropriate growth opportunities for teachers, and that as part of that assessment, my suggestion to address learning styles and preferred delivery formats was incorporated. This study held for me the promise of providing even more detailed data that could be used to design staff development options which meet teachers’ needs as learners and professionals and the system’s need for accountability in teacher staff development.

As I prepared to facilitate the staff development course, I was both anxious and excited. While I had prepared an agenda and resources for each session and aligned the program with frameworks tested by respected researchers, I was somewhat intimidated by the prospect of leading my immediate peers on an 8-week learning journey. At the same time, I was excited to see what they would do when given the opportunity to self-direct their own professional development in the context of a staff-development-unit-bearing program. I could not wait to take field notes and observe them during group discussions and individual work time.

During the first session I felt nervous and was in awe that five adults were trusting me to help them grow. I suddenly became terrified that I would let them down. I was tempted to sell my soul to avoid disappointing them. But by some divine intervention, I collected myself and passed out the participant resource notebooks. The teachers seemed

pleasantly surprised when they perused them. It was at that point I knew I was going to be alright, and I ran the session according to the schedule I had set.

In the subsequent sessions, I definitely “hit my stride.” I was comfortable with the staff development sessions and conducted data gathering and the study largely as I had planned. I did find it initially bothersome that some participant was always late, but as I became aware through the data gathering that the teachers’ lives were consumed with demands, the irritation just sort of dissipated. When observation of the participants during independent work time began, I thoroughly enjoyed being the proverbial fly on the wall.

By the close of the third session, 1 participant had already missed two full sessions, and I found myself frustrated with her. The individual had elected to attend an optional professional meeting, and she told me she would be at least an hour tardy to Session 3. She arrived when the session was concluding. I was concerned that she would not receive credit for the course, and thus she might not derive the benefits of the program. Too, I did not know how to address this in the study. The teacher approached me to ask what she could do to make up the session, and we talked about the implications of her absences. She said she did not need the credit and was not concerned about it. At her request, we remained for approximately an hour, so that she could receive guidance in completing parts of her learning plan. By the time we left, I realized she was responsible for reporting her attendance, and that receipt of credit ultimately rested with her. From this point on, I was truly able to become detached and remain emotionally neutral during the study.

Through Session 6, all seemed to run fairly smoothly. At this time, though, I was faced with singularly the biggest decision I would encounter during the research. One

participant had joined the staff development program with the intention of working cooperatively with another participant to learn a computer software application. The partner had become ill and required surgery, so other than reading, no progress had been made upon developing the planned project, and the participant appeared frustrated and concerned. I knew the software package and could teach it to the individual, but I wondered how that would impact the research. I decided to offer a brief demonstration that would familiarize the teacher with the basic mechanics of the software. He accepted, and I modeled input and analysis of data into a spreadsheet. I left my example on the computer, and he worked at the adjacent computer to input his own data. After the demonstration, I did not continue to instruct, as I did not want the participant to perceive me in that role. I was uncomfortable with my intervention, but in later weeks I came to realize I served only a consultative role. He completed his project independently during the remainder of the sessions. Only, the day before the final session, he came to my classroom and asked me to show him how to print a graph of his data. We went to his classroom, and sitting beside him at the computer, I verbally walked him through printing the graph.

As for the remainder of the study, I only experienced one difficulty. I felt uncomfortable analyzing data regarding the teachers' responses to me as the facilitator. I knew my role and its impact on the study had to be addressed. I strived to prompt for this data as objectively as possible, so as not to appear "fishing" for a specific answer. While I feel I performed my role as a researcher, I did not enjoy prompting for this information. I felt as if I were emotionally intruding, because several of the participants had very

personal feelings about me. In light of that, I felt I was prompting a response that could potentially make them feel uncomfortable or vulnerable.

Here at the close of the study, I must admit that I was profoundly touched by the teachers' respect and admiration for me. I was not aware of their perceptions of me going into the study. I have tried to analyze how their feelings for me and my feelings for them have impacted the research. I honestly do not know. If I knew why seeing a friend always puts a smile on your face, I could possibly begin to understand.

So, as a final statement to one assessing my contextual biases, I offer a final insight. I believe, considering all we know about adults' learning needs, that we have been alarmingly negligent. And I believe until we do what is right by teachers as adult learners, we cannot expect education to change.

CHAPTER 5

FINDINGS

The purpose of this study was to describe the perspectives of teachers participating in a self-directed staff development program based upon principles of action research. The researcher specifically sought to discover what beliefs teachers formed and what meanings they assigned to the physical, mental, and emotional experiences they encountered. This study was conducted in order to answer the following questions: What thoughts and feelings did the teachers have as they participated in the program? What were the actions of teachers as they participated in the program? What meanings did the staff development program have for them?

This chapter presents findings and is organized into three sections representing the levels of findings: statistical data, descriptive categories, and relationships among categories. Each of these levels of findings is discussed as it relates to the thoughts, feelings, and actions of teachers who participated in the staff development program. First statistical data is presented. Next, data is presented in terms of descriptive categories representing the teachers' perspectives. Finally, data supporting relationships among descriptive categories is discussed. For each level, category, subcategory, and property, unless otherwise stated, it is to be understood that data in support of the findings was provided by all five, or no less than four, of the participants.

Statistical Data

The SDLRS “is designed to measure the complex of attitudes, abilities, and characteristics which comprise readiness to engage in self-directed learning,” (Guglielmino, 2001b). The assessment is a 58-item, closed-ended questionnaire. The Pearson split-half reliability of the SDLRS is .94, as based upon a 1988 compilation of 3,151 participants’ responses. Fourteen experts in the area of self-directed learning participated in a Delphi study to identify the characteristics the SDLRS is designed to measure (Guglielmino, 2001; Confessore & Confessore, 1992b).

As adults’ readiness to participate in self-directed learning may change, the SDLRS was administered as a pre- and post-assessment. Except for 1 participant, the teachers completed the assessments within staff development sessions. The remaining participant requested the option to finish the pre-assessment at home across several days, as English was not her first language and she needed time to consider the questions. She completed the post-assessment in her own classroom approximately half an hour before the last session commenced. Scoring of the assessment was conducted by Guglielmino and Associates. In addition, Guglielmino and Associates provided a statistical analysis of the group’s performance on the SDLRS. These results will be discussed in terms of central tendency.

During the first session of the staff development program, 5 participants completed the SDLRS pre-assessment. The mean score of the group was 238 within a possible range of 141-285. One participant did not complete the post-assessment, so the mean score of the four who completed the post-assessment was recalculated; it was 238.5. The average adult in the norming population scored a 214 on the SDLRS, and the

average teacher in the United States scored 242.89. The group in the study registered a self-directed learning readiness mean on the pre-assessment slightly below that of the average teacher in the United States. The group mean was at the 80th percentile and fell within one standard deviation above the mean of the SDLRS norming population.

The post-assessment of the SDLRS was administered during the final session of the staff development program. The mean score of the 4 participants who completed the assessment was 265.2, a score at the 97th percentile and two standard deviations above the mean of the SDLRS norming population. Within the duration of the 8-week staff development program, the group's self-directed learning readiness improved by 26.7 points and more than one full standard deviation.

While the self-directed staff development program based upon principles of action research cannot be directly identified as the causal factor for improvement in the teachers' readiness, the program was designed to positively impact teachers' ability to engage in self-directed learning. Based upon the standard error of measure of 3.647 amongst combined pre-assessment and post-assessment scores, error alone could not account for the difference. It simply stands that there was a vast difference between the group's readiness for self-directed learning at the onset of the staff development program and at the conclusion of the staff development program.

Descriptive Categories

Upon analysis of data representing teachers' experiences with the self-directed staff development program, three descriptive categories emerged: intrapersonal, academic, and social. The intrapersonal category represents the thoughts, feelings, and actions participants had about themselves and their personal and professional lives that

impacted their experience in the staff development program. The academic category relates participants' perspectives of their projects and learning in addition to their characterization of the staff development program. The social category encompasses participants' thoughts and feelings about, and interactions with, others participating in the staff development program, both other group members and the facilitator/researcher.

This section is organized consecutively according to the three identified categories: intrapersonal, academic, and social. Within the discussion of each category, subcategories and their corresponding properties are presented. Data from participant interviews, participants' weekly journal responses, and discussion during staff development sessions are employed to exemplify findings.

Intrapersonal

The intrapersonal category emerged as the core category, the category through which all other categories were related. This category represents the thoughts, feelings, and actions that participants had about themselves and their personal and professional lives that impacted their experience in the staff development program. The intrapersonal category was found to be comprised of the following six subcategories: self-perception, sense of high achievement, pressure on self, concern to "do right," time, and feelings about learning (see Table 5.1).

Table 5.1

Categories, Subcategories, and Properties

| Intrapersonal | Academic | Social |
|--|--|---|
| Self-perception | Staff development program | Group members |
| Comparison of self to others Definition of self | Reason for participation Participant Definition Benefits Discontent | Descriptions Responses |
| Sense of high achievement | Reasons for learning | Type of interaction |
| Pursuit of challenges Concern for presentation and good work Desire to be the best | Personal Work-related | Affirmations Solicitations for or offers of help Dialogue about projects Socialization |
| Pressure on self | Learning plan | Researcher/facilitator |
| Goal completion | Interaction with the plan Participant comments | Description Emotions for the researcher Concern for meeting the researcher's needs |
| Do right | Projects | Researcher interaction with group members |
| Conception | Time spent Difficulties Changes Share with others | Affirmations Instructional discourse |

| Intrapersonal | Academic | Social |
|------------------------------------|--|--------|
| Time | Methods of learning | |
| Allocation Professional demands | Formats Independence Efficiency | |
| Feelings about learning | Response to learning | |
| Positive Negative | Positive Negative Related to experience Related to professional role Related to student learning Related to learning in general | |

Glaser (1998) noted that, in grounded theory, the core category accounts for the majority of variation in participants' behavior. In this study, participants often commented about themselves and compared themselves to others, both participants and nonparticipants of the program. Conceptions of self appeared to impact individuals' experiences throughout the program. If a participant felt positively about himself or herself, they appeared to experience the staff development program positively. And conversely, if participants perceived themselves negatively, such as through self-doubt, their experience with the staff development program appeared to parallel the self-conception.

Further, data within the academic and social categories demonstrated the impact of people and things external to the individuals upon the individuals' self-perception (see

“Relationships among Categories”). Considering individuals’ self-perceptions impacted their experience in the program and considering individuals’ experiences in the academic and social domains impacted their self-perception, the data appear to support the intrapersonal category as the core category accounting for variances in participants’ behavior.

As stated, the intrapersonal category included, and will be discussed according to, the following six subcategories: self-perception, sense of high achievement, pressure on self, concern to “do right,” time, and feelings about learning. The subcategories of self-perception and sense of high achievement were selected by the researcher to represent a range properties included within the subcategories, while the titles of pressure on self, concern to “do right,” time, and feelings about learning were taken from statements made by the participants. Definitions of these subcategories will be provided as each subcategory is discussed.

Self-Perception

Two properties became apparent within participants’ depictions of themselves: comparison to others and definition of self. First, all participants compared themselves to others, both participants and nonparticipants of the staff development program. Second, all participants defined fixed and fluid conceptions of self. These self-perceptions impacted individuals’ experiences in the program by providing a filter for “an unfamiliar area of group life through images” (Blumer, 1969, p. 36) they already held.

All participants compared themselves to others at some time throughout the staff development program. This comparison usually related a degree of progress. For example, Dane noted that the group provided an index of his progress:

The group for me, which is what I always do in a group, I use them to, whether we're supposed to or not, I use the group to see how I'm doing comparatively. You know, all our goals were different, but if people were stuck on something and I'm not stuck on something, and I have a clear mind as to, you know, what's going on and other people don't, I'm kind of like, okay, that's good. You know, I mean not that I would doubt, not doubting anyone in the group or anything like that but that's just the way I do everything. You know, if I'm in a, even when I took a defensive driving class one time, all right, well I know, you know, I know it and these please don't so I'm way ahead of them and if they're going to pass, you know, I know I'm going to.

Sally noted that she was not certain that her progress was any different than that of her peers, but she perceived herself behind in comparison:

I don't even know what they're doing. I just hear them talking. I see them working, they're on the computers, or they're sitting quietly at a table, and I can tell that they're busy doing stuff, and I know that I'm busy. I don't know that I'm, I'm any further behind than the next person, but I just feel like I'm behind.

Cher gauged her performance as well in comparison to others in the group but noted a change in affect as her perception of the comparison changed:

Well, I just felt like I didn't have much to share with them. You know, I just feel like I don't have, when they're ready to talk, I wasn't ready to talk about what, you know, what I had, because I didn't have that much. You know, they were doing things outside the class, but I wasn't. And so I didn't feel I had as much to share as they would when they shared, but towards the end I was doing as much as

they were. I feel like towards the end I was, I guess they got a gangbuster start, and I kind of caught up at the end, so I didn't feel as quite that bad.

Individuals' conception of self was impacted by their perception of their own progress or accomplishment in comparison to that of their peers as evidenced by these data. If participants viewed themselves as progressing favorably in comparison to others, they experienced a positive affect; and conversely, if they viewed their own performance as less than equitable to the others, they experienced a less positive affect. As noted by Cher's response, if perception of performance in comparison to others changed, affect would change correspondingly. Data supporting this proclivity to compare oneself to others spanned the entire duration of the staff development program.

Similar to their comparison of self to others, individuals provided definitions of self that connoted fixed professional and societal roles as well as fluid personal characteristics. These definitions of self situated the participants within the cultural milieu and moderated their approach to situations they experienced. Generally, when providing a definition of who they were, participants embedded the characterization within a response to some situation.

All participants provided definitions of self that situated them either professionally or within society. These particular definitions related fixed roles one would have. The roles they denoted, therefore, distinguished them from others. The following data exemplify the trend:

What I want to say, my position over here is not only parapros, please can you go copy this, can you do that. I think it's much more responsible in a what, that I can

be, I don't know, how can I call myself? Sometimes I feel as a counselor in [my] language, sometimes I feel as a friend, as a teacher.

In my lifetime, I've found that I'm a lousy team problem solver or team player. I'm a person who thinks very quickly and I'm a, there's so many different ways to do a single project. What I can do is, always been the problem solver. I'm a crisis manager. I was defined that way as a young principal.

Yes, I am a self directed learner in my own time, but I want to make sure I do things "right" for an instructor in a formal situation.

Participants' definitions of self through fixed roles appeared to frame the type of experiences they had with the staff development program. For example, the bilingual participant who felt like a counselor often commented on the "wonderful" support of group members, the "lousy team player" noted disappointment with his planned cooperative learning experience, and the "self-directed learner" repeatedly expressed a preference to work independently and ask for help upon a need basis only. It is interesting to note as well that the above definitions of self were related during either the initial staff development sessions or first round of interviews, but related comments connecting the definition and experiences within the program spanned the entire duration of the study.

Besides fixed professional and societal roles, participants also defined themselves according to fluid personal characteristics, or rather characteristics that can change in intensity. These characteristics, in general, represent how individuals moderate the situations they encounter. If fixed professional and societal roles are said to define the

situation in which individuals find themselves, then fluid personal characteristics set parameters for how they move about in those situations, whether it be with a lack of patience or a sense of confidence. The following examples demonstrate definition of fluid characteristics:

I must learn patience, though, if I'm going to work on PowerPoint!! ... Patience has never been a strong point for me.

I told you I felt like I was stupid, but when I work one on one, I do feel like I'm competent.

I feel I'm self-confident sometimes because of the English. I have to mention one more time, very often, I mean seldom during the years and after all these, my experience in the United States, these eight years, every day I am worrying I am fooling myself. But sometimes I feel as a little child who is ashamed to say something, because I am afraid I'm going to embarrass myself, say something wrong or somebody's going to laugh on my comment or my words or whole sentence.

In the same sense that self-definition of fixed professional or societal roles appeared to impact participants' experiences in the staff development program, self-definition of fluid personal characteristics did also. Each of the above participants repeatedly related concerns about patience, feelings of stupidity, and confidence with English throughout the duration of the study. Fluid personal characteristics reflect individuals' perception of self as they navigate their fixed professional and societal roles.

The subcategory of self-perception illuminates how participants in the staff development program defined themselves. They regularly compared themselves to others as an index for self-assessment. Their perception of their progress in relation to the progress of others left them feeling either positively or negatively about their status, which correspondingly impacted their affect. Comparison of self to others also aided participants in creating a definition of self. Their definitions of self incorporated both fixed professional and societal roles and fluid personal characteristics. Self-defined professional and societal roles framed participants' perspectives throughout the staff development program, while fluid personal characteristics moderated how participants approached situations they encountered.

Sense of High Achievement

A sense of high achievement was displayed by all participants and emerged as a subcategory by collectively representing the following properties: pursuit of challenges, concern for presentation and good work, and desire to be the best. Goals set and attained provided avenues for positive self-assessment. The amount of effort put into attaining a goal appeared to correspond to the degree of satisfaction, or positive self-assessment, one felt upon attaining the goal.

The data for this subcategory will be presented according to the following order: pursuit of challenges, concern for presentation and good work, and desire to be the best. Pursuit of challenges represents the individuals' pursuit of goals they find complex or expect require a degree of effort to achieve. The concern for presentation and good work subsumes the desires to produce a qualitatively "good" product to others, including both participants and nonparticipants of the staff development program. The desire to be the

best, while only evidenced in two participants, represented an important drive for achievement and, as such, was included as a property within this subcategory.

Participants in the study noted a desire to pursue challenges both historically and within the context of the staff development program. Pursuit of challenges was marked by individuals' drive to meet a goal they considered complex or requiring an extended degree of effort. Specific challenges were typically selected based upon a desire to achieve some level of knowledge or skill. When individuals met the challenges they pursued, they experienced a feeling of accomplishment, and often the degree of accomplishment felt corresponded to the degree of effort the participant perceived they contributed. The following exemplifies participants' pursuits of challenges in the staff development program:

He's told me that I can't do this on a spreadsheet, and I told him I think he's wrong. I'm not going to quit doing it. I'm going to do it. I think it can be done.

I wanted to use it. I couldn't remember it, and I needed it, and so that's the whole idea of why do we want to learn. I needed that information. One way or the other I had to get it, and if I didn't get it back in that book, I was going to have to go somewhere else, go back to the web again or to another language arts teacher. Or I was thinking gosh, it might even be in one of my textbooks, so I needed to find it somewhere, because I wanted it. If you're going to teach it, you have got to go back and find it. So that was my motivation to learn. I needed it.

I already know what it means to be educated, what it means feeling enough good and enough smart and enough comfortable to express yourself. And that's pushed me to doing some more time in my life, and I really took a chance when you offered this staff development. It was a challenge for me. I questioned myself, should I take this course, should I not?

I enjoyed it. I enjoyed it overall, because number one, it was a challenge. I was able to challenge myself to do something, and those are always the kind of, the best rewards, when you challenge yourself to do something, and then you complete it. And you know, like I said, I was proud of my end result, and I was proud of what I accomplished. ... You know, that's kind of a confidence builder, like, you were right, you did reach the final goals, and you didn't have to have someone saying all the way, "Keep going. You're fine. Keep going." I didn't need those pats on the back or anything like that, so it makes the reward sweeter.

Pursuit of challenges was characterized by participants' intimation that there were difficulties in pursuit or in continued pursuit of the goal. In each case, individuals appeared driven to accomplish the tasks they identified, and they did not cease working until they met the challenge. Achievement of challenging goals was noted by participants to generate increased self-confidence, or stated differently, mastering challenges generated within participants a positive self-perception.

In accordance with the pursuit of challenges, participants stated their performance in front of others provided a reflection of who they were, and as such, they were concerned with presentations and the production of quality work. Sharing one's work in

front of others invited feedback, and consequently the opportunity for self-assessment.

While individuals did not express they feared presenting their work in front of others, all participants noted a consideration for the quality of work they would present before their peers. The following quotations were typical responses of the teachers regarding presentations and quality of work:

In this type of staff development, I know I've got to get my project done, and like I said, it's the thing about, it's the image. If it's not done, it comes back on me. It doesn't come back on you. It makes us accountable even though you're not giving us a grade. I think every adult feels the responsibility if they know that they're going to have to be, if we're evaluated by our peers by our peers. If we get up in front of our peers and we fail, I think we try much harder because it's a bigger failure to us than if we just fail ourselves.

I'm really excited, and I'm expecting the comments. I would like to hear comments. Like you said, very stressful, because I think I put a lot of effort. ... That's important for me, because a feeling of my group of colleagues, and you personally as a real friend who is going to make a comment, say your expressions and your thoughts about my project, if it's right and why it's ok, and if it's not ok, why is that not ok.

One teacher noted the group's affect after presentations of their projects were completed:

Well they pretty much, I mean just looking at the quality of the work that was done, Troy, I mean Troy will be able to completely do, work magic with his

numbers, you know, just like he said the administrators wanted and the county wants and all that stuff. I didn't really understand Lily's project or what her goal was ... but I enjoyed watching her tapes, and she seemed proud of her students so, I mean she was happy and then she left. And it just seemed like everyone got what they wanted. Cher was able, you know, was able to do her PowerPoint and show us what was the model that she wanted her kids to do. And, I don't know, we all talked about having a drink afterwards and everyone, it was just a real light mood ... their affect was very happy. You know, positive body language.

Presenting one's work to others demanded an investment of self, as participants perceived their work to be a representation, or even an evaluation, of their abilities and effort. When, during weekly sharing sessions, individuals felt their work was not to the level they wanted to portray, they often provided reasons as to why it was not so, such as personal obligations, professional responsibilities, or difficulty in locating information needed to progress, and they privately expressed to the researcher a discomfort with sharing. Conversely, when individuals felt they had made progress toward their goals, they readily expressed feelings of excitement and pleasure during the sharing sessions. In essence, because participants wanted to receive positive feedback from others, they attempted to manage their appearance through a concern for presentation and quality work.

Beyond simply concern for presentation and quality work, 2 participants expressed a need to "be the best" or "be first" as compared to others. The data for this property not only supports these participants' drive for challenges and quality

presentation but also suggests they have a need for their work to appear superior to that of others. The following data represents their inclination to satisfy this need:

That's what I do. I want to be first. I was the first person here to have a web page. Were you aware of that? I was the first person here to do a PowerPoint presentation in the classroom. And then after I did it first, I moved along. . . . Everybody thinks I'm a computer expert, and I'm not. That awful? But the image is that I did it first. And that I'm an expert. Image is everything, substance is nothing. Who are we kidding [laughing]?

Now I still have, I have and always have and always have had the mindset that mine will be the best, mine will be done first.

In regard to the desire to be the first or be the best, both participants commented the characteristic was simply part of their personality. Further, both participants expressed interest in competitive leisure activities, such as athletics or gaming. The desire to produce work that is superior to that of others transcended the academic arena and also impacted competitive leisure activities.

In summary, participants displayed a sense of high achievement as demonstrated through pursuit of challenges, a concern for presentation and quality work, and a desire to be the best. Participants often pursued challenges motivated by a desire for knowledge or skills, and mastery of those challenges provided a sense of accomplishment and positive self-perception. In addition, the teachers viewed presentations and their work as a reflection of their abilities and effort, and consequently they wanted to receive positive feedback from others. Two participants expressed a need to be perceived as "the first" or

“the best” in comparison to others, and they related the motivation to be perceived as such is a characteristic of their personality. High achievement appears to be a vehicle through which participants pursue a positive self-perception.

Pressure on Self

Of the 5 participants, 3 expressed a tendency to self-impose pressure in relation to their goals. Each of the participants described the stress in relation to completion of a project. Emotions, such as worry or annoyance, often were paired with the pressure the participants felt. The following comments characterize the body of data regarding pressure participants imposed upon themselves:

I have a ton of articles that may beneficial for me to read regarding this project. I am feeling like I may not have enough time to read each of them before the class is over. I know this is a stress free learning situation, but I do want to produce a quality product ... I am self-inflicting stress.

Self-imposed pressure, it's just my, the nature of the beast, because of the kind of person I am. I am definitely an “A” type personality. No questions asked. ...

You've got to force me to stop to smell the roses. ... You know I, I, I'm just the kind of person that puts a lot of pressure on themselves. I always have to, I grew up being, my background from home and religion was that you just, it's a work ethic. You do the best you can plus more. That's, that's how I was brought up, and, and if you don't do it, you're, you're, it's almost like a sin. You're slovenly. You're, you know, you can't do that. That's not the way you do things.

The only time I'll ever move is when I have pressure on myself. Very seldom do things just for the general good. I have to have a reason to do things. You know, there's an internal motive, you know, and being successful, being the first, solving a problem...

As with previous subcategories, participants appear to place pressure upon themselves to complete goals or projects so that they may derive some benefit. Benefits may be the production of a quality product, demonstration of work ethic, or personal satisfaction. For these participants, self-imposed pressure provides a stimulus for work completion and, hence, a sense of accomplishment.

Do Right

Despite being given the freedom to design and conduct a learning project of their choice, in the manner of their choice, from the onset of the staff development program, all participants demonstrated an initial conception that there was a "right" way to engage in the learning. This concern to "do right" impacted items both small, such as punctuation and spelling in writing, and large, such as development of the learning project. Despite self-directing their learning, the teachers often asked permission for minor items, such as the following:

Can I abbreviate instead of writing out the whole title?

Do I have to write in complete sentences?

I want to change something. Is that ok?

In addition to minor items, individuals wanted assurance they were completing their self-directed projects correctly:

What I'm doing. I, I have to be honest. What I keep doing is wondering if I'm doing the right thing, because I'm doing a project more so than, I guess, I mean what's happening is it's becoming more a project than a staff development. Although is a staff development in terms of what I'm learning. I mean I'm learning something, but technically staff development, but I guess I don't, see I'm so used to having staff development be indoor and be all in itself. But to have it actually be functional as a project is foreign to me, so I keep wondering, "Am I doing the right thing?"

You know, I understand what is going on, and I understand the purpose and the goal and all that stuff, but I still like a verbal reassurance of it, yes. You know, even if you were to say, "If this is what you want to do, then that's right." Ok. I just want to make sure that I'm not getting off some tangent, going in a completely wrong way, going left when I should be going right, if that makes any sense.

Approximately halfway into the staff development program, participants' adherence to the conception that there was a correct manner for doing things began to diminish. Several participants noted that they had been told repeatedly enough there was no right or wrong way to complete the project, that they eventually began to believe it:

I think you've told me often enough that it doesn't matter as much, so I can back off on that a little. I think you've let me know that, that I'm not supposed to worry about right and wrong, so if you say something often enough, so if you throw enough mud, some of it's bound to stick.

One participant later provided an explanation of his prolonged conception that there was a correct way to engage in the learning despite being told otherwise:

Everyone needs reassurance. It's, I don't know, I think it's just for the fact that we've always, we've always been, you know, in class, in all the classes I've had, you know, even in poetry where there's no right or wrong answer. You break down a piece of poetry into what it means to you, but I still was told I was wrong. That's not right. Well, you're telling me it's, there's no right or wrong, but you're telling me this isn't right or good enough or, you know, whatever. I mean, so I guess it's little things like that. You just never really and truly believe that there's no right or wrong.

The progression from an initial preoccupation with “doing right” to a state with little or no concern that there was a correct way to do things occurred for all participants. In the final staff development sessions, there were few or no instances of individuals asking permission or seeking assurance that they were doing things correctly.

Analysis of the data illuminated the fact that the teachers' prior learning experiences led them to believe there was an inherently correct way to proceed in the current learning situation. As such, they sought reassurance that they were proceeding appropriately. It was only through repeated facilitator responses that there were no right or wrong answers that participants began to relinquish adherence to the conception. Individuals noted taking ownership of their learning when they began to truly believe there was no correct way to proceed.

The need to respond correctly infers that one desires to reflect an appropriate appearance. If this inference is accepted, then the need to “do right” parallels the

implications of the subcategories of sense of high achievement and pressure on self, that individuals seek to receive positive feedback and ultimately feel positively about themselves. Once participants realized there was not a correct way to proceed, they were able to release concern for “doing right” and conduct the project in the manner they desired.

Time

Teachers participating in the staff development program consistently referenced time throughout the study. Through analysis of the data, two components related to time emerged: allocation of time and personal and professional demands upon time. The property of time impacted the participants in various manners.

All participants noted being very busy. They related that their time was allocated to a number of different activities throughout the day, and often they had no break before attending the afternoon staff development sessions. Individuals’ comments regarding time appeared to have a harried and hectic quality. These responses characterize the groups’ allocation of time:

I don’t get to do any planning, grading during the day between parent conferences, SSTs, curricular. Well, we don’t have curricular meetings. Grade level meetings, faculty meetings, Beta Club meetings, Beta Club, doing the things that I have to do for Beta Club. You know, I had to fill out those forms so I could send the letters, the warning letters to the kids. Gosh, let’s see. Even when I come, and all that stuff goes on at school, and then I come home, and then I’ve got to try to do my grading and planning and doing that stuff.

Well, I have meetings all the time and it's not only, I guess it's kind of like they make it, I feel like I work between 8:15 and 4:15, I put in a good day and a half of work, because I've always got the kids that I'm supposed to be in there instructing, bettering their minds. Well, when you get pulled out of class for sometimes four and five hours a day for meetings, crisis situations, crisis situations with other teachers where they want you to be involved, IEP meetings, IEP meetings for kids who they're possibly trying to put in their class, teachers who aren't doing things the right way and just giving you kids. I mean those sort of things, not to mention I'm still supposed to be instructing these "problem kids." You know, I mean who, like if you just had, if I just had 8:15 to 4:15 it would be stressful enough...

Each teacher in the study related similarly filled schedules. In addition to workday activities, some individuals commuted 30 to 60 minutes each way to work. As well, several participants engaged in some other form of professional development, whether through other staff development courses or graduate work, at some point during the duration of this staff development program. Further, as a note of procedure, of the eight staff development sessions, on not one single occasion were all 5 participants present at the session start time. Individuals attributed tardiness to the necessity to conduct professional and personal errands between student dismissal and the start of sessions.

Beyond the hectic schedules teachers experienced on a daily basis, all participants discussed additional professional and personal demands upon their time. Like depictions of the time allocation, these demands appear to reflect a hectic, busy quality. Often the teachers expressed a feeling of stress in relation to these professional and personal

demands. These vignettes demonstrate the impact of the additional demands upon participants' time:

I mean like, the staying on Wednesday night is never a problem. That was not an issue. There was a night that my child was sick, and I have to go be with him because you know that I'm a single mom, that's why. Nobody else is going to be there to take care of him and take him to the doctor. Then, when I became sick I was unable to do anything even outside of those Wednesday nights. I'm in graduate school, single mom, trying to work, a job change at the same time. Hell, you know all about my personal life. That's not funny ... so I think I have been under probably an immense amount of stress.

I thought by being divorced my life would be easier, but it's even more complex now. It's, she's just, my ex-wife is just demanding so many different things ... every single night that I go home I face this, and I thought about people who are in my situation that are going through whatever trauma I'm talking about, somebody's father died or this divorce or there's a big family fight or the kids are in jail and everything. How the heck do people do all this education that is required at this county level? How do adults spend so much time, you know, eight hours a day here, two hours a day homework, three hours a night educational ... and still cope with issues such as divorce and they still function? Because I am barely functioning through it, and I don't have half the responsibility.

Surprisingly, except for one individual, the teachers stated that participation in the staff development program did not impact their personal lives. They did note conversely, though, that professional and personal demands upon them impacted the amount of time they could spend on their projects outside staff development sessions. All participants had planned to devote some degree of time outside the staff development sessions to work on their projects, and when they were unable to work as planned, individuals noted a dissatisfaction with lack of progress.

Time itself did not appear to be a key subcategory within the intrapersonal category, but it did impact how teachers experienced the staff development program. Teachers' roles as educators, parents, spouses, care givers, and students required time and energy of the participant and, therefore, impacted the amount of time one could devote to the learning projects. If time was available to participants to work on the project outside the staff development sessions, they perceived a degree of progress and experienced the learning situation positively. If participants had planned to spend time on the projects and were unable to do so, they perceived a lack of progress and experienced dissatisfaction with the learning situation. When dissatisfaction with progress was experienced, individuals were reluctant to share and provided reasons for lack of progress. In summary, time was a precious commodity for the participants, and use of it impacted teachers' ability to make progress toward their goals.

Feelings about Learning

As with time, feelings about learning appeared to revolve around the individuals' assessment of progress toward goals. The data in this subcategory were marked by terms denoting emotions and feelings. When expressing feelings about learning, participants

often included an explanation for the state they were experiencing. They readily shared responses indicative of both positive and negative feelings. The comments below were typical of those regularly expressed:

I'm finding out all kinds of things I didn't know. This is exciting! I mean, really I, this will be fun!

I'm still the same. You know, I don't think I have changed. I'm happier because I've got this thing going. That's a change. You know, I had a question or query or theory that I could do something, and you have shown me that I can. So we were able to take, you know, my hopes and dreams and make it come true, because sometimes you start these things and say, "It was a good idea, but I can't." And see I know I can, so that's a change that I'm really positive about.

I was a little overwhelmed by how much work I was going to have to do to totally develop my curriculum based around a community setting. There's no way I could get all that finished in eight weeks.

Across the span of the staff development program, a particular pattern emerged in the reporting of feelings about learning. Positive feelings were related repeatedly within the time span of the first two sessions and the final session, in addition to being intermittently reported throughout the remaining body of sessions. Negative feelings, though, were related almost entirely within the duration of Sessions 3 through 7, the sessions in which they were actually conducting their projects. The following quotations

from a single participant at the beginning, during the middle, and after the close of the staff development program represent this pattern that was common across the group:

This class continues to be fun, and I have good feelings about the probability of success.

Well, [I felt] insecurity, because I didn't even know the path I was on, much less understand the path I was going to, because I'm in totally foreign territory as far as the spreadsheet and the database is concerned ... I was worried when Sally kept on, you know, being sick, and we couldn't get together. And, you know, I was concerned, knowing that this is not a graduate credit for an A or a B or a C or a D, but I could fail it with no failure. But I was getting concerned, because I never failed at anything, and that I would have to make an excuse as to why it didn't get done.

When we got together a week and a half ago, or whatever it was, you showed me another way. And I saw it instantly, that it would work, then I was totally relieved.

With only rare exceptions, participants' feelings about learning were directly related to progress toward their goals. If an individual learned something new or drew a step closer to completion of their work, he expressed feelings using positive terms such as happiness, excitement, and self-confidence. On the other hand, when an individual experienced confusion, lack of understanding, or a barrier to progress, he employed negative terms such as impatience, frustration, and disappointment to characterize his

feelings. Overall, it appeared participants' feelings about learning provided an almost barometer-like reading of their self-assessment of progress.

Summary

The intrapersonal category was composed of six subcategories: self-perception, sense of high achievement, pressure on self, concern to "do right," time and feelings about learning. Central to the intrapersonal category was participants' drive to perceive themselves and have others perceive them positively. Through a sense of high achievement, placing pressure upon themselves, and the concern to "do right," participants created opportunities for positive self-assessment. Time allocation and demands upon time impacted the teachers' opportunity to work on their projects outside the staff development and, hence, was a factor in participants' self-assessment of progress toward their goals. The teachers' feelings about learning predominantly reflected their perception of progress toward their goals, with positive feelings being related when progress was made and negative feelings being related when progress was impeded. In summary, the data illuminated a need for teachers to feel positively about themselves and a propensity to engage in actions that would provide occasions to do so.

Academic

The academic category encompasses participants' perspectives of their projects and learning, in addition to their characterization of the staff development program. This category represents thoughts, feelings, and actions that participants experienced as they pursued individual learning goals within the context of a self-directed staff development program. The academic category comprises the following six subcategories: staff

development program, reason for learning, learning plan, project, methods of learning, and response to learning.

In the same manner that self-perception was central to the intrapersonal category, goal attainment appeared central to the academic category. From the data a chronology of the teachers' goal pursuit emerged. That chronology began with reasons for learning, continued through actions pertaining to achievement of the goal, and concluded with participants' responses to learning. Although this chronology was not entirely linear, there was a dynamic progression toward goal attainment throughout the cycle. This section will be discussed, as follows, in order of the general emergence of subcategorical data into the chronology: staff development program, reason for learning, learning plan, project, methods of learning, and response to learning.

Staff Development Program

Participating teachers knew the self-directed staff development program based upon principles of action research as the Learning Projects Staff Development. None of the teachers had previously participated in a formal learning situation designed around self-directed learning. When depicting characteristics and benefits of the staff development program, individuals often compared the program to previously attended staff development and formal educational courses. Data regarding the staff development program was disaggregated into four properties: reason for participation, participant definition, benefits, and discontent. The following discussion will successively address each of these properties.

The teachers in the staff development program initially volunteered to participate for predominantly one reason—to support the researcher in her doctoral work—

individuals secondarily noted participation in the program provided a benefit to them personally. The following responses were typical:

[To researcher] You know I love you, that's why I'm in here. Somebody asked me why I took this. I said, "Because I love Vicki. I think she is wonderful."

Sally and I, we saw how slowly the, the list was building up for your enrollment. We also knew that anybody who took the course was nuts with everything that was coming down from administration, with the grading, and we just knew that nobody would sign up. They heard, "Would you sign up?" and we just thought that the timing of the course was poor. Of course, you know time is always bad, no matter what time of life you're in. But we just knew that you needed to do this, and that you wanted to do it, and being the fact that we were friends of yours, we agreed to do it for you more than we had a project to do first. In other words, we're not going to you with a project fist and then say, "Oh look, we're helping." What you made us think, before we even got to you then, we made that decision. Before we got to you, we said, "What the hell are we going to do in this course?" It was Sally and I, and we came up with, I need us for the Access, and you need me for the algebra tiles, and why don't we work it in together. And if we're gong to sit there and do something, let's do something that will benefit us, and here we go. It was a mutual benefit, and after that, helping you became secondary.

The personal benefits that teachers cited as secondary reasons for participation all fell under one theme: the opportunity to pursue a goal. The following responses reflect this theme:

For every teacher time is an issue, so to take on something else, at first, was like, I don't want to take on anything else. It's like I can't do anymore, anything else. That's when you said you can take something you want to learn and go with that. I said ok, I'll go with trying to do the PowerPoint, because I know want to do it. I need to do something like that, so as I said it has had, it's been helpful for me, because as far as the issue to make me do something I've been putting off all year doing.

My point was this staff development was offering something to me that I saw as beneficial. I was already going to have to do the work anyway, so why not do the work and get some credit for it with the staff development stuff.

In essence, the teachers in the study recognized the researcher's desire to obtain a goal, that of earning a doctorate. While reluctant to allocate time, participants viewed themselves as friends of the researcher and, therefore, volunteered to participate in the staff development program in support of her. In the earliest stages of the study, though, before even the first session, all participants identified a personal benefit they could gain through the staff development program. That personal benefit then provided the motivation to engage in staff development activities, namely individual development of an assessed, job-related need.

When discussing their thoughts, feelings, and actions in the staff development program, the teachers would descriptively define or conceptualize the program itself. Typically the description was situated within a response to the structure, as none of the teachers had previously been involved in a program designed such as this. In all

instances, data reflected positive participant perspectives. The following are exemplars of this pattern:

Self-directed learning is enjoyable for me. I don't have to wait on others, my quality of work is more-often-than-not at a higher level, and I can ask questions at my leisure. I'm going to get out of this what I put into it.

You were actually telling people, "Please, do what you feel is right," and you were giving them the freedom to explore without parameters, because you're not going to know where you're going to go unless you have no boundaries. I mean, if you put boundaries, then you put limits, and you couldn't find the correct answer. But you were very clear about saying, "Hey, listen, everything is ok. You just proceed where your guts are taking you." You got sick of saying it, and that was really cool, because we've never done that. I mean in my education, you always had limits, and you were saying, "No, be free." And we also know that the whole purpose of your, this experiment was to have people learn what they want to do on their own, in their own direction.

Having something very tangible, having a project that will be completed when I finish, and learning in all the process of all the things I have to do is development, staff development.

In discussing the self-directed staff development program, all participants compared the current program to prior experiences:

We're used to going to staff developments where we go in, we sit down, we listen, they speak, we shut up, we get up, we leave, we've got our staff development in the end. We don't have to do anything other than we're supposed to be listening, and you know as well as I know that many times we go to staff developments and we don't listen. We don't, we don't really participate, and that is not what staff development is supposed to be about because, we are certainly not growing professionally by participating like in those reading classes. I didn't learn anything from those because I didn't have a vested interest in anything that they were talking about.

The self-directed staff development program based upon principles of action research was characterized by the teachers as individualized, participatory, choice-oriented and free of boundaries. Further, through terms such as *freedom*, *initiator*, and *risk taker*, participants suggested they were in control of the learning experience. As well, by comparison to other staff development programs, participants indicated content they learned within the program was specific to their needs and likely to be transferred to their professional roles. Succinctly stated, the program provided teachers the opportunity to cater learning to their self-assessed needs.

In addition to defining the staff development program, the teachers described benefits to participation in it. Seven particular themes were apparent in the data: opportunity to pursue a goal, "forces" one to complete a learning a learning activity, time is provided to work, learning is based upon individual interest, structure of the learning plan organizes learning, may "work on your own," and the group setting provides for camaraderie and support. The following statements depict these benefits:

It's good to be able to do this. I'm learning a lot. It's forcing me to learn more about things in [the media center] too.

I am excited that I can now look ahead to the coming weeks knowing I have time set aside to specifically work on this project.

I can do the learning at my own pace and independently requesting help when I feel I need it.

In relation to benefits of the staff development program, 1 participant stated, "This program has kind of taken all of this stuff that I like and wrapped it into one." This expression of multiple benefits was common to all the teachers. Specially, though, time to work and learning based upon individual interests were the most often related benefits of the program. These findings are not surprising though, when considered in conjunction with other finding regarding time and secondary reasons for participation in the program. The data portraying benefits supported the findings that the teachers considered time a precious commodity and they participated in the program, among other reasons, for personal benefit.

As a corollary to discussing what they considered to be the benefits of the staff development program, 3 participants briefly addressed items of discontent. Two of the participants were dissatisfied with inconsistent participant attendance during the initial two to three sessions. One participant stated:

It's frustrating, at any given time the whole group isn't there. Somebody is always missing, you know.

The remaining two comments referenced specific group activities conducted throughout the program. One participant was discontented with the time spent upon a group lesson because he wanted to work on his project:

The research article I chose to read this week was very interesting to me—last week. Upon being given time to begin reading it this week, I discovered I was impatient with the author—NOT because he wasn't interesting, but because I had change in focus—I'm interested in spreadsheets—and I can't be bothered by extraneous readings.

The final comments related a disdain for reflection in journals at the close of each session. Participants were asked, in the second half of sessions, to provide two thoughts, feelings, or reflections upon their learning, and to respond as well to a specific prompt that changed weekly. A participant expressed the following:

The prompts are always fine, because it wasn't something I had thought about previously, but then the other two, I was just kind of like, uh, there's the first one which was kind of BS anyway, and here's the second one which is much like the first one, just in a little different words. So that was probably my least favorite part.

While these perspectives were reflective of a facet of some participants' experiences, comments of a discontented nature in relation to the defined staff development program were rare in the body of data. Interestingly, contrary to other data sets, these incidences were not mentioned again after they were first expressed. Based upon the scarcity of data, it appears the items of discontent were of minor consequence

in the scheme of the participants' composite experience in the staff development program.

To summarize, none of the teachers in the study had ever participated in a formal educational situation designed around self-directed learning. Their initial reason for volunteering to participate in the staff development program was to support the researcher in pursuing a doctorate. The participants quickly recognized that the program offered a personal benefit to them, and that benefit provided the motivation to engage in program activities. Benefits of the self-directed staff development program based upon action research were described as the opportunity to pursue a goal, "forced" completion of a learning activity, time provided to work, learning based upon individual interest, structure of the learning plan-organized learning, could "work on your own," and the group setting provided for camaraderie and support. Discontent with the program was rare, but when it did occur, it related to poor attendance in early sessions and nonfavored group activities.

Reasons for Learning

While reasons for participation in the staff development program primarily stemmed from a desire to support the researcher, reasons for learning were personal or work related in nature. Interestingly, with rare exception, reasons for learning were to improve knowledge or skill. In addition, participants stated a desire to acquire information and skill and to actually employ it within personal or professional situations.

Personal reasons for learning were expressed by only 2 participants. Both of these participants had identified a need prior to the staff development offering, and both had

pursued addressing it to some degree. The staff development program offered a format in which to address the need. The following was an example of a personal need:

Ok, I have to be honest with you. I took this class, I was so happy when you approved me to come as a parapro, and I take just because I want to improve my English by being involved as much as I can in activities.

The remaining participant noted that he “hope[d] for a little rescuing” and felt a friend enrolled in the staff development program could do that.

Work-related reasons for learning stemmed from participants’ identification of goals they wished to achieve in their professional roles and from professional requirements placed upon them. All teachers identified knowledge or skills they wanted to gain and utilize in their roles. The following response from a single teacher summarizes the goals of participants to increase knowledge or skill for implementation in their professional roles:

Every one of them was [based on need] if I’m not mistaken. Yeah, every one of them was. I needed to this to create my report and also for my own whatever. Dane is looking for a better way to deal with his kids, and he was exploring that. Sally was looking for, on the algebra tiles, she was looking for, to get, for her own knowledge of how math works, so she can convey that to her kids and the teachers she’s going to supervise. You know Lily, what was she? She had a vested interest in that. She was very curious. She wanted to update that and make that whole project more meaningful to her, the way I saw her going at it. Yeah, everybody was there because they had their own personal needs, and of course, the PowerPoint, that was strictly personal. She had a thing that she wanted to do,

she knew she could pull this off, and it was personal. So everybody had a goal. I thought it was cool. Everybody had a need to be there.

In addition to gaining knowledge and skills, meeting students' affective needs emerged as a facet of the teachers' self-selected goals for their professional roles. Note teachers' statements to this effect:

I wanted to go beyond research and do a little more. I wanted something that would be fun for the kids to do, as well as helpful for the kids to do.

I was thinking about changing some parts of those questions inside the projects, because I could see that they will feel more comfortable if they can talk about themselves more.

All teachers identified goals they wished to achieve in their professional roles, but two additionally incorporated professional requirements placed upon them as reasons for learning. Both of these individuals related mandates for use of technology, referencing the school's goal for incorporation of technology into instruction and the state's certification requirement for technology-based staff development. Part of their reason for learning in this staff development was to address those mandates. One teacher describes her reason for learning:

The reason I selected [this goal] was because we were told we needed to have a technology goal as part of our professional development in the school. They wanted us to have technology, and I still wanted to tie that technology in with other [instructional objectives]. To try to get all your [instructional objectives] in

is very difficult to do, so if I could tie the technology in with something else, my goal with the [instructional objectives] is perfect.

In addition to technology requirements, the other participant noted annual professional goals required by the school and school district as another component of professional mandates:

The idea of starting a database for my ISS program, that came when I had to find an [annual professional goal] to do.

Both of the participants noting professional requirements placed upon them as reasons for learning also felt they had procrastinated in meeting the requirement because they had made no progress toward the requirement by February, the time at which the self-directed staff development commenced.

Reasons for learning were both personal and professional, but largely participants stated reasons for learning as work related. In both cases, knowledge and skill were desired with the intent of utilizing the information learned. Work-related reasons for learning stemmed from two sources: teachers' own identification of their needs and professional mandates placed upon them. All teachers expressed multiple reasons for learning.

Learning Plan

As a major component of the self-directed staff development based upon principles of action research, participants worked through a learning plan. The purpose of the plan was to guide teachers in their development of a self-selected learning project. The learning plan was comprised of the following components: identifying responsibilities, identifying focus, defining the problem, planning for self-directed study,

and self-directed study. Data emerged illuminating individuals' interaction with the learning plan, as well as their comments about it. In discussion of the learning plan, interaction with the plan will first be presented followed by participant comments about the plan.

Participants' interaction with the plan was often reflective and on many occasions led to questions of the researcher. Individuals appeared to take their written commitments to themselves seriously, and they expressed a desire to write in appropriate answers. While there were no definitively correct answers, and the researcher expressed this, participants repeatedly noted wanting to "do right" in completing the plan. Data to support these findings are exemplified by the following dialogue of participants recorded during staff development sessions:

Understanding that a computer should be able to take all this stuff and put it into a form that can be understood by somebody else, whether it be a graph or a chart or a narrative, or even a PowerPoint, I didn't put that in my word here, because I don't want to be responsible for a PowerPoint presentation.

Terms to be used in study. Do you need win/loss? ... Identify indicators of success. Well, I will learn how to use algebra tiles. For Happy Hopper, I will have it in the rough draft. ... [Implications for project] I don't know a doodling thing, and I haven't had to work with somebody to work on a project like that. ... I'm going to have to start from scratch.

Ok. And I don't have that yet, so that's my pre-project assessment. I don't have my philosophy yet, so I'm assessing the, the behavior, I don't have that stuff yet. That's what my post-project assessment should do, they should say I've done it. Right?

All teachers asked questions of the researcher regarding the learning plan and sought affirmation that they were completing it correctly. Questions to the researcher generally were to clarify or confirm an interpretation of a question or prompt. Affirmation was sought when participants wanted reassurance their written responses were appropriate to the learning questions and prompts.

Throughout the study participants did not comment upon the learning plan while interacting with it, but three teachers made reflective statements regarding it within journal response and interviews. Individuals had both positive and negative impressions of the plan. Positive comments about the plan referenced the structure it provided:

I really like it. From the beginning you was, you asked us questions. What is, generally what is our goal, what we need to do, how many hours it's going to take approximately, what kind of machinery we are going to use and which kind of devices or whatever. The whole thing is wonderful.

When participants were left with negative impressions of the plan, they consistently stated they felt confused about what the questions and prompts were asking. This is evident in the following responses:

It seemed like sometimes the questions were written with your knowledge of everything, and for us simple folk, I mean, some, it was kind of verbiage maybe, something like that where I just need to, I mean I understood it. I don't want to

say I didn't know the words or something like that, but I just wanted to make sure that I was going to answer the question you were asking and I didn't have some misconceived notion of what the question was actually asking.

To be perfectly honest, it drove me crazy because I wasn't quite sure what, I guess because what I was, what was supposed to go in there, it was so open-ended. I wasn't exactly sure what I was supposed to be doing with it and that, that was frustrating.

Despite being confused about the plan, 1 participant summarized his overall experience with the plan as positive:

The learning plan, even though I was confused, still made me keep going, still made me do the, it helped me put on paper what the next logical steps were in completing anything, and that's what was cool about it is because it worked for my project. It worked for Troy's project. It worked for everyone's project, and it was pretty much laid out to where as long as you did the learning plan activities, you had your mind, you were on the right track. You just had to do whatever you said you needed to do in the learning plan. So it did a good job of breaking things down from one big picture into small, little pictures, or anyway small steps to help you reach the ultimate goal, which seemed daunting at the beginning just because it was kind of like it's yours do it. Well, you have the learning plan, so you couldn't really get too far off course.

The mixture of both positive and negative impressions was common across the participants.

In sum, data regarding the learning plan illuminated participant interaction with and participant comments about the plan. Interaction with the plan often led to individuals asking questions of the researcher and seeking affirmation of their written responses. Some participants made both positive and negative reflective statements about the learning. Positive statements referenced the guiding structure of the learning plan, while negative statements referenced confusing questions and prompts within the plan.

Projects

All participants regularly discussed their self-directed learning projects throughout the study. Data was abundant in journal entries, interviews, and recordings of staff development sessions. Properties of this subcategory included the following: time spent, difficulties, changes, and sharing with others. In addition to these properties, teachers often expressed their feelings and emotions about their projects. Because feelings and emotions about the project paralleled their feelings and emotions about their overall learning and was discussed within the intrapersonal category, the findings will not be reiterated in this section. This subcategory of projects will address time spent, difficulties, changes, and sharing with others.

One of the design purposes of the self-directed staff development program was to provide teachers time within a formal staff development program to pursue independent learning, as teachers expressed time demands as a stressor when learning independently (Auger & Wideman, 2000; Sardo-Brown, 1995; Vulliamy, 1991). While approximately 1 and a half to 2 hours each session was devoted to independent work time, all participants reported working on their projects outside the weekly staff development sessions. Even if physical progress was not made on the project, individuals stated they devoted mental

energy to it. The following comments by participants reflect mental or physical time devoted to their learning projects:

I have been spending time outside of class trying to schedule computer lab time, scheduling technology specialist and requesting specialty equipment.

I've done both mental and physical work outside the staff development sessions. Mentally, it just comes to mind every now and then; physically, I've interviewed other teachers on my own concerning this, which I could not do during staff development.

I'm going to sleep and waking up thinking about this damn formula.

All participants expressed that they often thought about their projects outside the staff development sessions. Further, all of them engaged in dialogue with others regarding their projects. While some participants physically worked on their projects outside the sessions, time spent in this fashion was reported much less than devotion of mental time to the project.

As all participants discussed mental and physical energy devoted to their projects outside the staff development sessions, they all described difficulties they had in developing and making progress on their projects. Difficulties for participants came in the form of personal struggles (mental and physical) and lack of assistance or materials, and they often were paired with a feeling of frustration or disappointment. The following data are representative of the findings:

I had frustration, agitation, because there was so, really so much in regards to my topic that I couldn't get any sort of focus. I had no idea what I should do first. I

had no idea what I should do next. I mean everything was just there, unorganized, messy and floating around.

I just assumed that as we proceeded we would be doing things together, in other words every step of her development in the algebra tiles experience would have been with me there either approving or confirming what she was doing, or showing her a more efficient way whenever I would be needed. And at the same time, while I was doing my project, she would be there if I had a question. We would just play off each other as we needed to, and last night she wasn't there.

I've had surgery. I've missed what, two classes in the past two weeks because I was ill. And nothing, nothing that I could have done would have prevented me from being there except for my being sick, but that was something that I couldn't help. And so I wasn't there, and now I don't have anything. I don't have anything to show for the whole, whole time except for the work that I had done up to that point.

Frustration again. Waiting again. Sitting here waiting. And I'm waiting, and waiting, and waiting. I want some motion clips. I went through this once already, and the one I picked didn't move.

It is almost same problem like Cher has. We have to set up appointment with [the computer lab attendant] or [the technology coordinator]. Very often [the computer

lab attendant], because we need to have lab for at least ten kids during this program and project. And we have another kind of problem, it's because of the ESOL kids, they are not able to know program, or then are not able to understand, do things in same time we require them to do it, just because of low English levels. We have a kid who just came today who doesn't know English. Even we try to separate them and split them and put them in groups that they belong to, like low, beginners, or advanced, high advanced. But we still have differences, or somebody more active, somebody not active.

While all the participants encountered various difficulties throughout the duration of the staff development program, they attempted to resolve them and move forward. By the concluding session, all but 1 were able to overcome the challenges and complete the projects. The 1 participant missed two sessions for personal and professional commitments and underwent surgery, resulting in absence from two additional sessions. She attributes these absences to her failure to complete her project:

I probably didn't do as, I think that if I had not had to miss those last two weeks that I would have probably met my goals. By missing those two times, it destroyed them, and I was not able to ever recoup from it.

As a result of the difficulties she encountered, this 1 participant chose to be absent on the final session of the staff development program because she did not complete her project and had nothing to share with the group.

All participants provided accounts of difficulties faced while engaged in their self-directed learning projects. Difficulties resulted from personal struggles (mental and physical) and lack of assistance or materials. When the teachers experienced barriers to

progress, they often expressed feelings of frustration or disappointment. With the exception of 1 participant, all the teachers overcame the difficulties to complete their intended projects.

On the path to completing their projects, all but 1 participant made changes to their original plan. Changes resulted from realizations about goals, new learning and barriers to progress. It appears that changes were made to facilitate progress toward and completion of goals. The following data point to these findings:

I was a little overwhelmed by how much work I was going to have to do to totally develop my curriculum based around a community setting. There's no way I could get all that finished in eight weeks. What I've decided to do is narrow my focus to creating an outline of what I'd like next year to present to the other EBD teachers. That I think I can accomplish in the remaining weeks.

I realized that learning how and when to use algebra tiles would not take as much time as I originally thought, so I expanded my staff development to include a graduate course requirement. ... I decided I would use this time to work on the project while meeting the requirements of this staff development. Troy and I agreed to work on a database and spreadsheet program as part of this staff development. Spreadsheets can also be used in my graduate project, and I believe I will best be able to help him explore the uses of spreadsheets with my particular project.

How I was going to get from A to Z was nothing like how I planned in the beginning, and the outcome was not, well my actual path had nothing to do with the predicated path. And I think I heard that almost everybody else did major changes in theirs too.

Upon analyzing the data, it did not appear the teachers viewed making changes negatively. One participant even noted that it was part of her personality to naturally adjust to change. It is possible that the participants did not view change negatively because they were in control of the change and usually enacted it in response to situations they encountered while learning.

In summary, changes in projects were noted by all but 1 participant. Changes resulted from realizations, learning, and barriers. Changes were made by participants. Further, the teachers did not appear to view making changes negatively.

As change was characteristic of self-directed learning projects, the propensity of teachers to share their learning with others was also characteristic. Each individual in the study reported sharing or planning to share their project with other education professionals. They discussed their goals and progress, as well as solicited feedback from others. The following examples demonstrate this behavior:

At the ISS teachers conference on Tuesday, the need for all ISS teachers to have the database I am trying to create was expressed by most teachers in attendance. Pressure was put on me to complete the project because all wanted me to share the database with all ISS teachers.

It's coming, I think. Want to see what I've got so far, but tell you what I'm trying to do? See what you think, this is just a person's opinion, not as a teacher.

Sharing with others was formally written into the learning plans of all participants, either as an outcome of the project or as a method for learning. Interestingly, though, the incidences of sharing that were related throughout development of the self-directed learning project were primarily unplanned and impromptu.

Overall, all participants shared their learning and projects with others. Sharing incorporated reporting goals and progress, and it sometimes was followed with requests for feedback. Sharing was written into the learning plans of all participants, but the instances of sharing apparent in the data set reflect unplanned, impromptu discussions.

In summary, the subcategory of projects was comprised of four properties: time spent, difficulties, changes, and sharing with others. While the staff development program was designed to provide work time within the context of each session, all participants reported devoting either mental or physical time to their projects. Difficulties en route to learning were common, but generally overcome for successful completion of projects. Changes in projects were reported by most participants and were not described negatively. Sharing with others was planned by all the teachers, but incidences of sharing reported were largely unplanned and impromptu.

Method of Learning

The teachers' methods of learning were varied, but amongst the data, three distinct properties of learning emerged: format, independence, and efficiency. Within format, methods for gathering information and interacting with it are related. The property of independence is representative participants' preference for learning. And the

property of efficiency emerged as a reason for deviating from independent learning. In discussion of methods of learning, format is presented first, followed by independence and efficiency.

The teachers in the study pursued learning through a number of different formats, including trial and error, books and printed material, computers, group members/coworkers, and cooperative learning. The format used by the most participants was the computer, and all the teachers employed it to gather or manipulate and organize information. The next format most utilized by individuals was interaction with study participants and coworkers, with study participants providing ideas and suggestions for consideration and coworkers providing expertise in participant-identified need areas. Trial and error, such as flipping a coin to generate probability data, and use of books and printed material were employed by only 3 participants. Lastly, cooperative learning was used as a format for learning by only 2 participants (see Table 5.2).

Table 5.2

Formats for Learning and Frequency of Participant Use

| Format for learning | Number of participants using format |
|----------------------------|-------------------------------------|
| Trial and error | 3 |
| Books and printed material | 3 |
| Computers | 5 |
| Group members/coworkers | 4 |
| Cooperative learning | 2 |

While participants employed a variety of formats for learning, they appeared to prefer learning independently until help was needed to progress. They related a desire to solve problems themselves, working at their own pace, and a personality trait of independence as reasons behind preferring to work independently. In spite of this preference to work alone, individuals were not opposed to seeking help when needed to progress toward their goals. The following data illustrates these findings:

When I have a problem, like I have now, my solution to my problem, I'll just get down to it—by myself. No matter how long it takes.

I like learning at my own pace—especially when it comes to technology!

However, it would be nice to have a personal technology trainer at my disposal.

Need input about how to do certain things. I like to “play,” but if I can't figure it out, I'd like an expert to offer advice. ... I'm more, and that's part of my

personality too, is independent. It's part of how I am, have to try it myself, have to figure it out. It just stays with me longer when I figure things out. But after a while

I get so frustrated, I say ok, this cannot be ... they are there, so, and all of you, you're there to help if I need it, which is nice.

It's just a matter of knowing how to program it to make it do what I want it to do.

I had turned to my professor to ask him about the actual moving of the piece. You know, I've gotten it to turn. We've determined if it's heads or it's tails, and then the second one, the flip to turn and see if it's going to turn counterclockwise or clockwise by 90 degrees, and so I figured out how to do that, but then to make it

move to a different space on the game board, I don't know how to do that ... I, I know that he knows, my professor has had more experience with spreadsheets than I have. Even though I feel comfortable with them, I knew I didn't have enough knowledge to do what needed to be done, and I still don't.

It is interesting to note that while participants had a preference to work alone until help was needed, when they did solicit help, it was always from another person, specifically from another person who had expertise in the need area.

In regards to this property, data supported the preference of teachers to work alone until help is needed. When a barrier to progress was encountered and they could not work through it independently, the teachers sought assistance from another person. The person from whom they sought help always had expertise in the need area.

In addition to the willingness to seek help when they could not progress through a barrier alone, participants appeared to operate under a sense of efficiency in learning. The key component to this property was time. The teachers would utilize resources, human and nonhuman, to maximize efficiency and reduce waste of time on activities that yielded little or no progress toward their goal. Note this sense of efficiency in the following responses:

We can generate random numbers on a calculator, just like I did on the spreadsheet. I went down to the room and created a random list of numbers, said heads was zero, tails was one, so we wouldn't have to flip the coin.

I also have a program that I purchased about two years ago for my old computer that is supposed to teach me, and that's a tutorial. The tutorials take you the

proper way through it to learn it correctly, but I don't have time for that, I want the shortcut way. And that's what Sally would do, and that's what [the technology support technician] would do.

I've tried several things. I prefer to find out things for myself, because I, it sticks with you more. But if I can't figure out, I don't want to waste the time. I'm also very time conscious. I feel stressed enough on time as it is, and if I can figure out how to get out of it quickly with somebody helping me, more power. You know, I've tried, it's not working. Can I get help so I can move forward?

Having a sense of efficiency supports the earlier finding that time is an important resource for the teachers. The participants appeared to place a higher value on progressing forward toward their goal than accomplishing the goal without help. Therefore, through an efficient use of time and resources they could lessen the amount of time needed for goal attainment.

In summary, the subcategory of methods of learning included three properties: formats, independence, and efficiency. More participants employed the use of computers and the aid of other participants and coworkers than any other format for learning. When learning, participants demonstrated a propensity to work independently until help was needed, at which point assistance was solicited from a person with expertise in the need area. Finally, individuals had a sense of efficiency in learning, and they utilized human and nonhuman resources in a manner that would yield quicker goal attainment. Methods of learning are connected to the subcategory of projects, as methods of learning describes the manner in which participants pursued completion of their projects.

Response to Learning

Throughout the staff development program, the teachers had a diverse array of responses to their learning. Responses to learning, unlike feelings about learning which comprised an emotional component, represented an intellectual or academic reflection upon learning. Responses to learning disaggregated into six properties: positive, negative, related to experience, related to professional role, related to student learning, and related to learning in general. This section will be presented successively according to the properties.

Positive responses to learning were expressed by participants for a number of reasons. Often positive responses were the result of making progress toward a goal or learning new information. Examples of positive responses to learning were numerous and present throughout the data set in journal responses, recordings of sessions, and participant interviews. The following exemplars demonstrate typical positive responses:

After intensive searching, I found what I was looking for. I'm on a roll, and I'm feelin' good. Now starts the hard part ... getting off my lazy A—— and doing it!

I learned how to set up a spreadsheet in 10 easy minutes due to the personal attention by [the researcher]. Awesome. I am now eager—obsessively eager to move toward completion of the project.

I do think/hope that this project will be better than I originally anticipated. I am finding out more than I thought I would, and I am pleased with where it's heading.

Positive responses to learning were replete with examples of delight with forward progress toward goals, and positive responses were made more often regarding progress than in relation to new information learned. It could be that learning new information actually was a facet of making progress toward goals, as learning new information enabled participants to progress toward their goal in a manner not previously anticipated.

Parallel to positive responses to learning, negative responses to learning often reflected lack of progress toward goal completion. Barriers to goal completion were time and those mentioned in the subcategory of project under difficulties: personal struggles (mental and physical) and lack of assistance or materials. The following illustrate negative responses to these barriers:

PowerPoint is still my nemesis when it comes to time management. Trying to complete my presentation always takes longer than I want. Inserting pictures from gallery is a bear!! ☹

You take what you can get when you get it. That's what I did. I took from you because you offered, but that wasn't a planned cooperative activity. And with Sally's failure to be able to come through, it wasn't her fault, I mean sick is sick, she was really sick, so I've never liked cooperative learning. I said that in the beginning interview, and I still don't like it. And it kind of let me down this time ... my opinion about cooperative learning is the only person you can count on is yourself.

As was noted with feelings about learning within the intrapersonal category, negative responses to learning were related to the time span encompassing the middle

group of staff development sessions. As was earlier speculated, the reason for a heightened number of negative responses may be due to the fact that the majority of learning occurred within the middle group of sessions. Further, as of the final session, all participants completing the staff development program had attained their goals, and therefore responses to learning were primarily positive.

Besides merely positive and negative responses to learning, participants often related learning to their experience. References were made to personal history and work experience, and within the data there appeared a pattern of participants validating or refuting research based upon their own experience. Note references to experience by participants:

I was frustrated what happened to me and my family, and I even didn't want to talk about myself. So, if we have some newcomer who comes in this country frustrated with the former situation, or especially if we have somebody who was somebody during wartime, and who was a witness of a very, very terrible situation, that person is very sensitive. We have to be careful what kind of questions we ask that person.

There's all kinds of prior experiences we can get to. I mean, as I said, the fact that I have an English major, have taught writing for, gosh, how many years, from third grade on. So, I've got, I've got the whole third grade impact, and then I've got the eighth grade knowledge from teaching last year. Could take both, all the way from third and fifth grade, and then the eighth grade, and to be able to created

sixth grade quickly using the book and my knowledge. That's how prior experience helped.

I wish I had spent more time reading this article. I chose the longer one, only because it has to do with what I used to do for a living. So far, everything I've read, this guy's right on.

Teachers' experiences appeared to provide the basis for operating in new situations. Goals were based upon previously gained knowledge and experience, previous experience was noted as an aid to efficiency in learning and experience was used as a reference for evaluating information. Metaphorically speaking, teachers appeared to sift beliefs, actions, and new encounters through the sieve of their personal experience.

Similar to the relation of learning to experience, participants regularly related learning to their professional roles. Not only did teachers relate learning to the roles, but there was also an inherent plan to implement new learning in their roles. This pattern was noted with both planned learning and with information they had not anticipated learning, such as through group instruction during staff development sessions. The relation of learning to one's role is demonstrated below:

I believe that I can get more experiences and knowledge, so I can feel more comfortable to teach my students and be ready to build more self-confidence.

Now I just have to create a PowerPoint presentation in which I use all aspects of P.P., so I can model and teach.

The two little girls that just left here, they were working together, even though I'm sitting here. I'm facilitating. It's probably like the way you're doing this staff development. I'm sitting here, I'm listening to them. If I hear something way off target I'm going to lead them back to the right direction, but they're figuring it out together. ... Because I work with such a small number of kids, that's naturally occurring in here. I can't, I can't say that if I were still teaching 30 at one time if I would have naturally done that, put them in cooperative groups. I think cooperative grouping is great, but when you have 30 kids in a classroom, it's very hard.

Throughout the staff development program, teachers appeared to process what they were learning within the context of its use in their roles. This could be due to the fact that all participants reported predominantly work-related reason for learning. In addition, goal attainment and project completion were important to all participants, and integral to goal attainment was utilization of learning in the professional role.

Beyond merely relating learning to their roles, the teachers specifically connected their learning to that of students' learning. There appeared to be a desire to increase student success, both affectively and academically. Upon analysis of the data a pattern of intent to engage students mentally emerged. Observe the relation of participant learning to student learning:

It puts a little thorn in my brain saying keep that in mind. You know people react the quickest to something they don't know, maybe I can figure out a, some way to develop in my project, a way to make my guys, gals in the future I guess, stimulate, guess their, answer their own problem, figure out things for themselves.

I already spoke with the students in the classroom and [the supervising teacher] what should we change over here and what they prefer to change, or do they prefer to change it, do they prefer to keep the instructions like they already had. And they're willing to add some more private and personal things. They really enjoy to say some things about themselves.

I honestly think this project will be productive and successful. Students are more involved than I anticipated, and they are taking it seriously (seeing as it incorporates several grades). I am noting adjustments as I go along, and next year this will be a "killer" unit.

Again, as noted with relation of learning to professional roles, relation of their own learning to student learning was imbedded within the goals participants selected. This may be the reason that participants referenced student learning throughout the duration of the study.

Within the data, most responses to learning were specific, either to participants' individual situations or to students. The remaining property, conversely, was not specific; it related the teachers' notions about learning in general. Two ideas were apparent: interest must be present and one has to use the information learned. These responses portray the teachers' notions about learning in general:

What it says at this point, everybody learns what they have to learn to survive. It really isn't this cut and dry, sequential learning we always do. You've got to have the interest. ... And I suppose having PowerPoint is one of those things that

provide opportunity for them to move at their own pace, their own direction, based on what they want to do. They're going to be learning based on what they want to be learning. I'm going to be learning based on what I want to be learning.

Everybody is smart if they want to work, and I think every success, each success is probably 80% of hard work and 20% talent.

I learned how to use it, but you use it or lose it. I lose it.

It's a kind of like a learning to ride a bicycle, when you learn one time it's over here, but you're just losing the routine. Or typing, if you learn to use your four, eight fingers, it's going to stay forever, but you're losing the routine if you don't do it everyday. You know what I mean? And same with computer.

Interestingly, teachers described notions of learning that were remarkably similar to two of the benefits they attributed to the self-directed staff development program: pursuing an individual interest and being given the opportunity to work on their individual projects. Further, participants supported their notions about learning in general based upon their own experiences. It appears that their notions arose from both their own learning experiences and their observations of students in their classrooms.

In summary, types of responses to learning were: positive, negative, related to experience, related to one's professional role, related to student learning, and related notions about learning in general. Both positive and negative responses directly related to progress made towards goals, with a positive response emitted in relation to progress and

a negative response emitted in relation to lack of progress. Throughout the staff development program, the teachers regularly interpreted what they learned within the context of their professional roles and student learning. Further, individuals related their notions about learning in general and indicated they believed interest must be present and learners must be engaged with the information they are learning.

Summary

The academic category provides a portrait of participants' learning throughout the study. It chronicles the reasons for initial participation in the staff development program, reasons for learning, how learning was conducted, and concluding responses to that learning. While not presented in a chronological manner, the organization relates participants' progression through the process.

Findings within the academic category fell into six subcategories: staff development program, reasons for learning, learning plan, project, methods for learning, and response to learning. The staff development program provided an opportunity for participants to engage in self-directed learning. Participants' reasons for learning were both personal and work related. The learning plan offered a guiding framework for planning a self-directed learning project, but on occasion its verbiage was described as confusing. The teachers reported they devoted mental and physical time and energy to their projects outside the staff development program, experienced difficulties and changes in project development, and shared their goals and progress with others in both planned and unplanned situations. With the exception of 1 participant, all teachers completed the staff development program and ultimately their self-directed learning projects.

Social

The social category relates the thoughts, actions and beliefs participants held regarding one another and the researcher. Throughout the staff development program, participants were constantly interacting with one another in a variety of manners. As facilitator of the staff development sessions, interaction with the researcher was intermittent and characterized somewhat differently than that between participants. Data in the social category includes the following properties: group members, interaction among group members, researcher/facilitator, and researcher interaction with participants. This section will be presented in order of these properties.

Group Members

One of the benefits of the self-directed staff development program noted by participants was individualized learning within a group setting. Rapport among the participants was established during the first session and continued throughout the study. At some point, all participants commented upon “the group.” Data about group members generally disaggregated into two properties: descriptions and responses. The findings on group members will be presented according to these two properties.

Group members’ descriptions of one another were overwhelmingly positive and connoted a professional respect. The group itself was depicted as “healthy.” Whether speaking of an individual or the group, descriptions were specific and reflective. The following example present participant descriptions of some group members, as well as depictions of the whole group.

I just watched Dane handle people that I could not handle, without going crazy, and he does it with such skill and precision and confidence. And I’m just amazed

at what he does. And Lily, I've worked with the products of her efforts for as long as I've been here, and I just like the pride she has in her culture and what she, and how she tries to take her pride and pass it on to her students. They're just two remarkable teachers, and just being with them and sharing, I admire, I get something from it. I admire what they're doing.

Psychologically, I mean, psychologically and mentally healthy the relationship. No ironic relationships, no ironic sentences, no very strange sights, you know, the view. No pretending of friendship. I'm telling you all those things that I really don't like when I see some people. I will respect and be more careful for the person who shows me the real face than somebody who's pretending and telling me something that I, I can see same moment that they are not true. ... All of them are really, really real, no pretending. That I really appreciate, and that for me, that's an explanation of a healthy relationship.

We've all had a good relationship, so we felt free to talk, speak openly.

Sometimes we got off course, you know, and stuff like that, but there was good camaraderie with the group, I thought.

The teachers' descriptions appeared to center upon characteristics that were important to them individually. For example, professionalism and exemplary performance were recognized by a participant who strives to be first among his colleagues, and the sincerity of group members was noticed by the participant deeply

concerned about students' affective needs. It could be that participants recognized in others what they themselves hoped to reflect.

Like descriptions of group members, responses to group members were overwhelmingly positive. There were, though, a number of negative responses to group members as well. The type of response one had seemed to be dictated by several different variables: a sense of inclusion in the group, interaction with group members, perception of being considered by group members, and the feedback or reaction one received from group members. If through these variables a participant perceived a positive reception by group members, they expressed a positive response. On the contrary, if a participant perceived a negative reception by group members, they expressed a negative response.

Interaction with group members led participants to feel they were among friends, and they were motivated by positive feedback from others. When participants perceived they were unable to interact with others, they perceived a sense of isolation. Note this pattern in the following responses from the teachers:

As I've said before, I love this group. There are so many different perspectives to learn and take from each person. We've all interacted well, helped each other, joked, teased ... just a very friendly and helpful group of educators.

That's, that's something that's really fascinated me and motivated me to work more, and share my ideas, yes. I'm, maybe I'm that kind of person that likes that kind of relationship and cooperation with people. And that really motivates me, because I see you, you listening me. You said, "Oh, that's a good idea. Oh, you

see this is not bad.” We can think about that, so it’s a motivation for my thinking, my own thinking, and bring more ideas to the table.

I’ve unfortunately, I feel like I’m kind of isolated. And I don’t feel like what I’m doing, I watch ... Troy and Sally are working together. Troy and Sally are working together on their project, and so they’re going in one direction, and they can function together. I think [Dane], he’s an interesting character. Just to listen to him. He’s so young and so full of energy. Just to listen to him is amazing to me, and he’s got a fascinating, I think, where he’s going, fascinating staff development, but it doesn’t tie into what I’m doing. The only one that ties into what I’m doing is Lily, and she’s in a totally different spot than where I am, so we’re really not, I’m not, I am not interacting in terms of staff development with anybody.

The same pattern present with interaction with group members is present with the ability to share one’s ideas. When mutual sharing was present, participants expressed positive responses to group members, and when mutual sharing was impeded, participants expressed a negative response to group members. The following comments illustrate this pattern:

I really like this group because we are able to share ideas. Everyone is anxious for the others to be successful in this program. Therefore they are always willing to help.

I'm disappointed that I have not had a chance to show Sally what I feel she needs to know about algebra tiles.

In addition to interaction and sharing with group members, the support and camaraderie of the group were important to the teachers. Participants came to view their peers almost as a support group for learning. When individuals perceived they were being supported, positive responses were expressed. When they perceived others did not consider their preferences and ideas, a negative response was expressed. The following data illustrate these findings:

It's just, it's like there's always someone there telling you good job, keep going, you're doing the right thing, you're not doing this right, this is what I think you should do. It's almost like you've all, you've got a bunch of people helping you make it down the right path, you know, do the right thing, and in turn we all, we did that for each other. You know, we would talk about in the beginning of class where we are as far as our project, you know, what we need to do and all that kind of stuff, but again the reassurance, to look around the room and see people going, "Oh yeah that is a good idea," or, "Wow, sounds like you're on the right track." That's kind of what camaraderie is to me too, not like survivor where you vote the weakest, off but you try to build everyone up in whatever area they need help in.

On demand she had to do two things at once, so she changed without asking me, which annoyed me for a little bit.

There's the emotion but, you know, that emotion, it's, once I tell you about it I won't dwell on this. It's over. Remember I said I give advice. If you take it, you take. If you don't, you don't. You know everybody is where they are because of the choices they make. That's her choice. That's a disappointment she didn't take my advice.

The interaction, sharing, support, and camaraderie led participants to feel safe in the group. When this sense of safety was maintained, individuals expressed positive responses to group members. When participants perceived negative feedback from others, they expressed a negative response. This pattern is evident in the following participant comments:

I didn't hesitate to ask them, and I even didn't think that they would humiliate me or just put me down because I didn't know something.

In a group like what we had ... the rest of the people are there to at least, you know, encourage you or buy you a Coke or something like that. I mean you know you're not going to be blasted. You know the only thing we're going to get is positives.

I wanted to work on algebra tiles with Troy, and that didn't happen. You know, last night Troy and I talked, and he was angry with me, because, and he actually voiced some things last night that he had not said early on, which was that it was selfish of me to change our plan in the middle of the class. And I never got that feeling from him before until last night ... Troy told me last night, he says, "Why

are you going, and what's the point? Why are you going?" He doesn't want me to be there. I really feel like he doesn't want me to be there.

The safety the group provided appeared more so to be a freedom to take risks without fear of looking foolish to others. Behaviors associated with the risk of looking foolish were, among others, things such as asking for help with spelling or vocabulary, speaking one's opinion honestly, or identifying struggles and weaknesses. The teachers did not want others to think they were "stupid," and they appeared pleased with the overall sense of safety they felt within the group.

To summarize, the teachers in the study generally perceived and responded to other participants of the staff development program positively. Individuals described a respect for colleagues, and they particularly enjoyed the interaction, sharing, support, camaraderie, and safety of the group. Negative responses to group members were infrequent but were largely expressed when one felt excluded from the group in some fashion, such as through lack of interaction or sharing or through perception of negative feedback.

Type of Interaction

Throughout the staff development program, participants regularly interacted with one another. Upon analysis of the data, four properties of the interaction emerged: affirmations, help solicited or help provided, dialogue about projects, and socializing. Often several types of interaction were present within a strand of dialogue, as conversation was dynamic and responsive to participants' situations and experiences. This section will be presented according to the properties of interaction. First,

affirmations will be discussed, followed successively by help solicited or help provided, dialogue about projects, and socializing.

Because sharing progress at the beginning of each session was a component of the staff development program, opportunities for affirmation were abundant. It was during this time that participants often responded with simple affirmative words, phrases, or suggestions to other group members. Individuals noted that while these types of responses did not particularly impact progress towards goals they were a source of motivation. The following was a typical exchange:

Lily: We want to improve and change things, just add something of course, including your help [laughing].

Troy: Good idea.

The teachers expressed the following sentiments in regards to giving and receiving affirmations:

Their feedback, the only thing their feedback really did for me was encourage me, because they didn't give me a lot of advice on look for this and here's how to do this and stuff like that. Those things came when we were just talking about different issues.

That's a type of encouragement to do more if I get a positive feedback from, from somebody, from my group or, or from partners, that give me, that motivate me to do more and to work more.

That's what I got out of it. That was a social thing, yes. There's also where my experience could help people, which I always get off on that, and validating people's existence to what they were doing ... that was great. Yeah, that was what I enjoyed most.

Affirmations and responses such as these to affirmations were widely present in the data set.

Within the same positive domain as affirmations, a number of interactions included solicitations for or offers to help. While the researcher suggested early in the staff development program that participants assist one another in development and pursuit of projects, this activity was not mandated, and the suggestion of it was not repeated. Nonetheless, the teachers appeared to have an inclination toward helping others in the group. Further, they reported feeling comfortable in soliciting the help of others. The following strands of dialogue illustrate typical requests for help:

Lily: What is implication, what is meaning of implication?

Troy: Implication? When something implies something else. Without specifically telling you what season it is, I might say, "You know I got up this morning, and it was freezing cold. I had to get my mittens on, I had to put my ear muffs on, I had to put my scarf on...."

Lily: You had to do that because...

Troy: What season is it? I've implied that.

Lily: Ok, thank you.

[To the group] Can I get some ideas from you? If you were going to ask a kid to do a persuasive speech and convince a friend to do something or not do something, gangs, drugs, smoking, convince them to join a club, what are some other things? [Group members readily provide at least a dozen suggestions.]

Solicitations for help from group members were usually impromptu and in response to situations encountered by the participants. Offers to help occurred under the same circumstances. The following offer was typical:

Want me to show you how you can make just certain number of pages without Word program?

The following participants commented upon providing help to others:

We had Lily last night. She came in with something that she needed some help with, and she had talked to me earlier about it, earlier yesterday, and asked me if I would work with her, and so, I wanted to see her succeed. She needed something from me, so I'm able to do that. Like this Cher last night, she needed a rubric. I hear you guys talking about it. Well, I have that, and I think it may be valuable to her, and I can pass that along.

I get off on it is what I do. You know that. I like being able to help people.The other thing I want to say is it's ok if they don't want to take the advice. That's fine too, but I share. Every time I say something, if I can get one thing, you know, accepted out of every ten things I say, that's fine. You know, I, I feel like I contributed to the world.

Requesting help from group members assisted participants in making progress toward their goals. Offering help, quite differently, appeared to give the teachers a positive sense about themselves. In most cases, individuals noted that offering help made them feel they had something of value to offer others.

Amongst affirmations and solicitations of and offers for help, participants engaged in discourse about their projects. Discussions were characterized by descriptions of project components or exchanges intended to further progress on the project. The following strands of dialogue were typical in participants' discussions of projects:

Sally: It's a probability game.

Lily: You have to guess?

Sally: It's a probability, what you are trying to do is see if it's a fair game or not a fair game.

Sally: So all you're doing is reducing?

Troy: Yeah, I reduced it. So now I'm attempting to come up with a theoretical probability. And all your work is doing...

Sally: Is experimental.

Troy: Is experimental. [Pause] I'm not so sure I'm right here. I'm not so sure how the 26 out of 36 figures into it.

Dialogue about projects was common, as the teachers were seated in close proximity and engaged in their projects for the vast majority of each session.

The remaining type of activity can simply be characterized as socialization. Interaction of this type generally included humor and appeared pleasing those involved,

as well as those observing the interactions. The following strands of dialogue illustrate instances of socializing interaction:

Lily: You mention my name?

Troy: Yes, we want to have a discussion about intransitive verbs.

Lily: Intrusive?

Troy: Intransitive.

Lily: Intransitive. Ok. What?

Troy: When learning English, you have to know what an intransitive verb is. You can't talk unless you can prove you know what an intransitive verb is. Do you know what it is? [Lily and Dane are laughing.] You cannot talk until you learn that. [Troy now laughing with them.]

Lily: I'm not interested to talk with you.

Troy: Lily, we're just teasing.

Dane: The best thing is that means none of my students are allowed to speak. [All three break out in laughter.]

Dane, what he's doing is he's trying to find something the kids will buy into. How about instead of, Dane, a drama, do it through a medical end. Let's pretend they are doctors, and they could play lobotomies on each other [laughing]. Only kidding.

Socializing interaction occurred consistently throughout staff development sessions. During interviews, participants noted that this type of interaction sometimes drew them off task and, thus, was a slight impediment to progress, but still they enjoyed

it. All participants, at some point, initiated socializing interactions with other group members.

In summary, interaction amongst participants occurred regularly throughout the staff development sessions. Data on interactions properties produced the following properties: affirmations, solicitations for or offers of help, dialogue about projects, and socialization. Participants tended to affirm one another naturally, and this was a source of support and motivation for group members. The teachers felt comfortable asking their peers for help and appeared to employ this solicitation as a method of advancement toward their goal. Somewhat differently, individuals' offers to help gave one the sense they had something of value to offer others. Dialogue about projects was common within staff development sessions, probably because the majority of time was devoted to independent work on projects. Interspersed between other types of interaction, group members engaged in socializing behavior, most often of a humorous bent.

Researcher/Facilitator

As discussed in the academic category, the teachers chose to participate in the staff development program primarily in support of the researcher. In addition to conducting the study, the researcher also facilitated the staff development sessions. Responses to the researcher were positive, and participants expressed a concern for her. Data regarding the researcher produced three properties: description, emotions for the researcher, and concerns about meeting the researcher's needs. This section will successively present each of these properties.

Descriptions of the researcher were positive, and typically the teachers noted specific traits or behaviors they liked about her. In addition to descriptions, the

participants generally included a rationale for the depictions given. Further, descriptions appeared to be drawn from participants' personal interactions with the researcher. The following were typical descriptions of her:

Vicki is so patient. You know what, I remember Vicki the first days when I tried to speak with her. Of course three years ago my English was less good than right now. But I remember some people, and Vicki is one of them. She was the same first day, same right now my English is good. And I really, that's, that's a great feeling. Instead you have some people that just don't want to listen you. I don't know, I have a feeling they think I am stupid. It's a great feeling when you have somebody to respect you. Thank you.

You kept telling me it was my project, and when I got done, when you know, it was my goal, and how I chose to meet those goals were left up to me. But I never felt any pressure from you at all, and even when I was sick you were real good to say it's ok.

Do you see a passion for teaching in the majority of the school? A passion for it? Talk about you. Step back and see how you presented that big thing in the room with all the learning stations and stuff like that. You knew that you two, and I'm including [your teammate] in that, you two had a solution to a problem that was working for you. And you just wanted to share it with everybody else, hoping that somebody else would grasp, if one out of the 50 people that walked in the room

took it out, you would be happy about it. And you were obviously enthusiastic about it. How many people do you see who are wanting to share what they do?

As with descriptions of group members, the teachers appeared to identify characteristics in the researcher that they had recognized in themselves. For example, the participant who noted her enthusiasm had commented about himself, “How many other 61-year-old people do you know that get up with the enthusiasm I do in the morning?” The teacher who noted no sense of pressure reported placing excessive pressure upon herself.

Descriptions of the researcher seemed connected to teachers’ experiences with her. Hence, it was interesting to find juxtaposed upon such positive descriptions somewhat objective perspectives of her role in the staff development program:

I did not view you as a peer while we were in that room. I knew you had a different role in there. You were, you took on the role of the observer ... I knew you were the observer, so I tried not to ask questions that I knew you couldn’t answer, I tried to avoid that. But I used you as a tool for the project ... not really [a] teacher, but just the person running the, kind of like a proctor of an exam or something like that.

You just guided, you just helped people when they asked for help. You guided people when they needed guiding except, you know, yeah. That’s it. You just let them, you know, find their own way, and then encouraged them when they did not do well and, you know, you make the choices. ... It’s like if you’re in a three hour course, instead of you being the teacher for three hours you were the teacher

for twenty minutes, and then you let everybody else do the learning, you know, based on what your teaching may have kindled or not kindled. So you, you were not a traditional in-service teacher or classroom teacher.

Participants who joined the staff development program in support of the researcher related positive descriptions of her and held objective conceptions of her role in the staff development program. This perspective of her role was related, as participants generally stated having strong feelings for the researcher. Generally, individuals expressed feelings of love, admiration, and respect for her. The following were typical emotions expressed in relation to the researcher:

Well, I like you. I love you ... I'm comfortable with you. I can say anything to you.

Vicki, I admire you. I am in awe of how much you accomplished. I think that you are under-appreciated, and I would do anything to help you do what you need to do to get where you need to go, because I think you have so much to offer.

You've given so much. I think a lot of us have a debt to you, and I don't feel many people see that, and that's how I feel.

It's still relationship, I mean respect, mutual respect to you as somebody who is my teacher ... but I feel more flexible. I can ask more questions, and I'm not nervous, ... because your relationship and your way how you relate to me and others around me, it's friendly. And that's something that I like.

Within the staff development program, it appeared that participants further perceived feelings of acceptance and “mutual respect” from the researcher. It may be because of these feelings and the teachers’ primary reason for participating in the study that the next property emerged, the concern for meeting the researcher’s needs.

Data relating to the concern to meet the researcher’s needs were confined to the almost exclusively to the initial staff development sessions and interviews. Individuals pressed for an answer to the question, “What you do you need from us to be successful?” Further, they questioned their own activities and their support of the study. Participants’ concerns for the researcher’s needs were allayed rather early in the study, with the exception of one teacher who did not complete the program. After the first session, the following was noted in the researcher’s notebook:

Dane wanted to know what it took for me to be successful. I responded there was no evaluation of me or them in relation to the outcome of the staff development program. He pressed, wanting to know what I needed for this to go well for me. I told him that I just needed data from them.

The teachers made several direct comments questioning their support of the researcher’s needs:

So I keep wondering if, if I’m, I want to do what you’re supposed to be doing too. I don’t want to be throwing your research in terror, you know, throwing a curve in your research because I’m not, my focus is too narrow or I’m not doing the right thing in terms of staff development. . . . I don’t mean that I want to give you input that you want. I don’t worry about whether I’m saying the right things in terms of

is that what she should right here, because it's trying to prove something, but am I doing what is helpful for you to give you input at all for studying.

I am wondering if I am filling out my journal well enough for you to know. Like you know me, and you can determine what I mean, but can you use that in your study?

It appeared that the teachers became less concerned about meeting the researcher's needs after being told on several occasions that there were no right or wrong answers or behaviors. They seemed to be satisfied with the response that simply being allowed to observe them and collect data as they participated in the program met the researcher's needs.

In summary, the subcategory of researcher/facilitator was comprised of three properties: description, emotions, and concern for meeting the researcher's needs. Descriptions of the researcher were positive both before and during the staff development program, but her role in the staff development program was described objectively. Emotions for the researchers were generally expressed to be love, admiration, and respect.

Researcher Interaction with Participants

In contrast with the frequent and varied interactions among group members, data on the researcher's interaction with participants was characterized by two basic properties: affirmations and instructional discourse. Except for prepared lessons, researcher interaction with participants typically occurred upon initiation by the teachers.

Cues for interaction most often were verbal and direct, but sometimes eye contact and body language signaled a request for interaction. The researcher would respond to the cues then revert to observation on the group. In discussion of researcher interaction with participants, affirmations will first be presented, followed by instructional discourse.

In the early sessions of the staff development program, participants prompted the researcher for affirmation that they were “doing right.” After repeatedly reassuring the teachers there were no right or wrong answers, prompting for this type of affirmation practically ceased. The following discourse was typical of this type of affirmation:

Lily: I will work on PowerPoint at home. If it is ok with you?

Researcher: Oh, it’s fine, however you want to do it.

Lily: And then next time when I come I can show you.

Researcher: It’s really for you to decide if you learned it or not.

Throughout the remainder of the program, affirmations the teachers prompted from the researcher were those of a validating nature. Individuals sought validation of themselves and their work. The following interactions exemplified this finding:

Lily: I was so happy when you approved me to come as parapro, and I take just because I want to improve my English by being involved as much as I can in activities. But I’m not pretty sure I can do anything in a classroom, you know what I mean? I already consult [supervising teacher], and she gave me green light. She said ok, that’s fine, but I understood that we would do a project, exactly the project. Is that ok?

Researcher: You will do a project. In your role, the project you are talking about goes with what your job is, so you don’t have to be in charge of the

classroom. You are a certified teacher. The study is not on teachers who are certified in Georgia, but on people who have been educated and certified as teachers, and then the project you are doing in relation to your job.

Lily: So I can have right to write over here any ideas about project exactly as a teacher?

Researcher: Anything. Even though your official title may not be teacher, you are acting in the capacity of a teacher.

Cher: Now as a teacher, not as my teacher here, as a teacher teacher...

Researcher: Um hm.

Cher: Do you think that sounds reasonable?

Researcher: I think it's pretty darned good of you to come up with something, especially if you have another person teaching it. You're coming up with your own PowerPoint to emphasize it. I think it's a good modeling thing.

The researcher also provided affirmation after a response of a negative nature that was indirectly precipitated by her. The following sentiment was shared by an individual during one of the sessions. Several participants were late, so the group lesson took place after some teachers had already begun working independently. As the lesson was concluding, one of the teachers who had previously been working on his project had the following interaction with the researcher:

Troy: I could be reading my book, I've got *Access* down here, and I'm here, so to me, all of the sudden, I am very impatient right now. And I have difficulty.

Researcher: And that's very valuable information. And I appreciate your

honesty. So on that note, 5 to 7 minutes, next part of the lesson, we're going to the computers. [The group laughs, including Troy.] Actually, about 5 to 7 minutes, then that's the last thing. Then all the rest of it to yourself.

Troy: See, thank you [laughing]. You need me, right?

Researcher: I would much rather you be honest, and that's more beneficial than hiding the truth. I'm ok. I'm ok.

Prompts for affirmation always occurred within a staff development session.

Affirmation seeking by the teachers, such as in the above examples, was not frequent. It was, however, common to all individuals in the study. Parallel to the findings regarding group members' interactions with one another, it appears that the researcher was perceived as source of feedback.

The vast majority of interaction between the researcher and participants encompassed instructional discourse. As previously mentioned, except for group lessons, the teachers most often prompted this interaction. And, in most instances, the discourse was related to the learning plan. The following were typical interactions:

Dane: Do I need to finish pages two through five before I start on?

Researcher: It would probably help you immensely in planning, because you have 8 weeks. The plan helps you think about what you're doing and why you're doing it. It also helps you project when you have to finish and backs you up, depending on a realistic timeframe, where you want to be by the end. I would strongly recommend trying to run through that at least on a cursory level before I got too far into my project.

Sally: I don't know a doodling thing, and I haven't had to work with somebody to work on a project like that.

Researcher: So what does that imply? If you've never done any work before, what does that imply for your project?

Sally: That I'm going to have to start from scratch.

Researcher: And because you haven't worked cooperatively, and you haven't done any of that, what does that mean for your project?

Sally: To ensure that we split the time evenly.

Within the academic category, findings regarding the learning plan suggested that participants sometimes found the language of the plan confusing. Because of this confusion, it is possible that the majority of researcher interaction with the teachers related to the learning plan. Outside of the learning plan and group lessons, the researcher did share knowledge of software applications with two individuals when their progress was impeded. Both of these individuals attempted to solve their problems independently, but when they could not do so they requested information. One participant was given instructions for saving a PowerPoint file to the school server, and the other was given a brief tutorial on organizing data within a spreadsheet.

To summarize, interaction between the researcher and participants generated two properties: affirmations and instructional discourse. The teachers initially sought affirmations that they were "doing right," but this activity ceased early in the staff development program, possibly because they came to believe there was no right or wrong answer. Other affirmations prompted by the participants were of a validating nature, with individuals seeking positive feedback about themselves and their work. Beyond

affirmations, the majority of interaction was characterized by instructional discourse. This discourse most often related to the learning plan.

Summary

The social category was comprised of four subcategories: group members, interaction with group members, researcher/facilitator, and researcher interaction with group members. The teachers often described and responded to other group members positively. The exception to this pattern was when individuals somehow felt excluded from or disregarded by the group or some member of the group, at which point participants would express a negative response. Types of interaction among group members included affirmations, solicitations for and offers of help, dialogue about projects, and socialization. All teachers reported the interaction sometimes distracted from their projects, but noted they enjoyed the camaraderie with their peers.

The researcher, while described as having a specific, facilitative role in the staff development program was not depicted as holding more importance than any other member of the group. She was, however, portrayed positively by the participants, and the teachers expressed feelings of love, admiration, and respect for her, emotions that likely led them to volunteer for the staff development program and be concerned with meeting her needs within it. Researcher interaction with participants generally comprised affirmations and instructional discourse. Among the data set, instructional discourse was present most often and centered around the learning plan.

Findings within the social category appear to indicate that interaction with others provided the teachers a reflection of themselves. Individuals often attributed to group members and the researcher characteristics they recognized within themselves.

Furthermore, they expressed a sense of safety within the group, a safety that led them to feel comfortable taking risks without fear of appearing foolish. The teachers stated that they enjoyed helping others, and doing so gave them a feeling of personal satisfaction and value. Additionally, they came to expect positive affirmations from group members and even solicited them from both peers and the researcher. Essentially, others and interaction with others presented opportunities for a positive self-reflection.

Model of Teachers' Experiences in a Staff Development Program

In the two previous sections, data was presented descriptively. Statistical results and descriptive categories represented patterns apparent in the findings. The purpose of this section is to interrelate the descriptive categories. Strauss and Corbin (1998) stated that clues to how concepts are linked can be found in data, but it is not until relationships are recognized as connections that they actually merge into the developing theory. Theoretical explanations, according to Strauss and Corbin (1998), not only describe events, but interpret them as well, to explain "why, when, what, and how events or happenings occur" (p. 18). Through interrelation of descriptive categories, an explanation of teachers' behaviors during the study, and consequently insight into their perspectives of the self-directed staff development program, will be presented.

This study generated three basic categories: intrapersonal, academic and social. Findings within the intrapersonal category illuminated teachers' pervasive desire to view themselves positively, as well as have others view them positively. The academic category related teachers' learning within the staff development program, describing the process from initial reasons for learning through methods of learning to responses to learning. The social category encompassed teachers' interaction with and responses to

other participants and the researcher. Within each category, participants essentially perceived themselves relatively positively or negatively, as if on a continuum, with movement up and down the continuum based upon the thoughts, feelings and actions they experienced (see Figure 5.1).

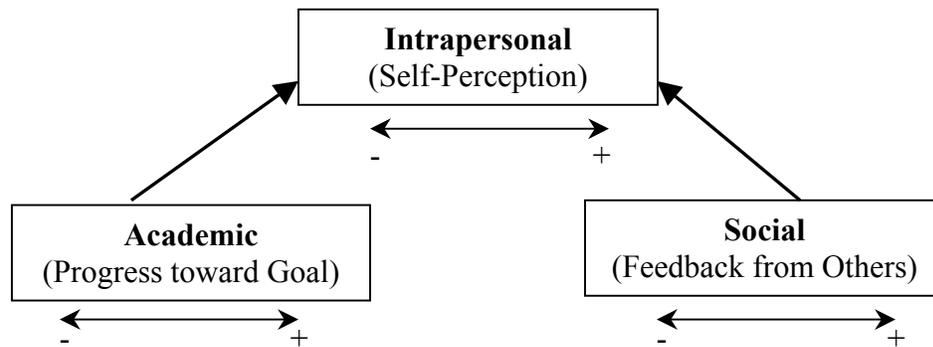


Figure 5.1. Conceptual model of teachers' experiences in a staff development program.

In illustrating the connection between the categories, it is easiest to understand the relationships by conceptualizing each category according to the basic findings related within in it (Figure 5.1). The intrapersonal category largely represents participants' self-perception. The academic category represents participants' perception of progress toward their goal. And, the social category represents the participants' perception of the feedback they received from others. Within this conceptual model, one can see graphically represented the relationship of the intrapersonal category, as the core category, to the academic and social categories.

It appeared that both the academic and social categories provide a measure by which individuals can assess themselves. Through progress toward their goal, the

teachers evaluated their own ability to master a challenge. Interaction with others provided participants qualitative feedback of their standing within the group and in comparison to the group, and thus represented to the participant another measure by which to evaluate themselves. The teachers initiated several actions that indicated they sought to increase the likelihood of positive self-assessment through drive for goal attainment and solicitation of affirmation from others. Within the remainder of this section, the connections between the intrapersonal category and the academic and social categories are more deeply explored and supported by participant data. First, the relationship between the intrapersonal and academic categories are presented, and then discussion of the relationship between the intrapersonal and social categories follows.

Relationship of the Intrapersonal and Academic Categories

The academic category represents a body of data that chronicles participants' progress from initial reasons for learning through methods of learning to responses to learning. Essentially, the category conceptually represents the teachers' progress toward their goals. As noted within the intrapersonal category, individuals' feelings about learning were often in response to movement, or lack thereof, toward their goals. Beyond simply illustrating just an emotional response to learning, though, this section will delineate the connection between goal attainment and the participants' perception of self.

The teachers clearly stated that their learning was "intrapersonal" and a way of measuring themselves. Further, being in control of their learning and independently accomplishing their goals impacted how they felt about themselves. When the teachers were able to progress toward their goals, they felt positively about themselves. When they felt impeded due to their own lack of understanding or lack of work, they did not

feel positively about themselves. This section will present patterns that demonstrate the interrelation of the intrapersonal and academic categories. Those patterns include: need to complete project independently, being in control of learning, progress toward project and feelings about self related to learning.

As noted in the intrapersonal category, teachers pursued challenges as a manner of generating opportunities for increased self-confidence, as mastering challenges led participants to feel positively about themselves. Regarding the need to measure herself, 1 participant stated, “I have to, I have to, I have to, I have something for work. I had to have something to prove myself.” For participants, it was not only important to have something by which to “prove” themselves, but it was important that they be able to do that “something” independently. In this study, progress toward and completion of the self-directed learning project, their goal, were the indices by which they assessed themselves. The following statements indicate individuals’ preference to learn and achieve goals by themselves:

What you showed me was so simple that it was almost laughable that I couldn’t get it on my own, and that concerns me.Yeah, [a coworker] and Sally, as they’re teaching they want to do the whole thing for you. ... And that’s what he, his solution to my problem was. Sally’s solution was do the project for me. If we had gotten together just once she said we could have knocked out. Freely translated that was she could have done it for me, and I would have gotten credit, but I would have been cheated. ... But it’s just going to be me in my house in my room with my glass of wine, or whatever I’m going to have, or a bottle of Coke

when I do it. And I'm looking forward to it, because I will be able to pull it off by myself, and I just can't wait to get this done.

That was a wonderful chance for me to see how much I'm able to do something in English personally. If I say personally, it's important for me to see how much I'm able to do it in English language. Everything is easy if I have to do it in my, my own language. I can express myself very differently, but when I work on the English, when I have to work something and use the English language, it's harder. I talk a little bit more responsible, because I have to. I have to use it all, I mean I have to use the same, the same words, the words that they really express my feelings. And I can personally say this is wonderful experience for me, because you gave me chance to do it by myself.

When I hit that wall, how do I put the sound in, and I, it took me quite awhile. I played and played with it. I've talked to you about that before. I will play and play and play and play with something 'til I, you know, until if I can't do it, then I'm willing to ask somebody else, "Alright, now how do I do it?" But I think the best way you can do it is learning yourself. If you play with it and you learn it, you keep it because you learn by trial and error. This doesn't work. This doesn't work. This doesn't work. Once I found a way, that makes you feel good, hit that challenge, I was able to it.

It appears that working and achieving a goal independently led to participants to perceive themselves as knowledgeable and capable, and thus they assessed themselves

positively. Within the study, though, discovering that they were in control of their learning and responding to it was an emotional experience for some participants. Not only did they have to come to the realization that they “owned” the learning process, but they grappled with being responsible to themselves for deadlines. The following related participant responses to being in control of their learning:

I just had to become okay with the fact that, to stop asking yes or no questions to you because it's mine. I ask, I need to ask myself is this where I'm wanting to go with this, you know, and when I became okay with that, it was very intrapersonal.

I'm my own, here I'm my own student, because I'm teaching myself, so therefore if I don't get done when I expect it to be done, it's ok. I'll do it the next night, and then if something comes up, I'll do it tomorrow night versus having to have to turn it in to someone else who's doing the teaching to me ... I'm, I'm, I stress myself out, because it isn't done, and yet I don't do it because I don't have time to do it. But then I worry about the fact that it's not done. Whereas if someone were expecting it, I would stay up no matter how late I had to stay up, no matter what I had to do, it would be done. It would stress me out until I'd have to stay up late to do it, but once I went to bed I could go to sleep saying, “Whew, it's done.”

Possibly because the teachers were in control of their learning and wanted to achieve their goals alone, progress toward project completion had such a great impact upon their self-assessment. One individual plainly stated about her project, “It's a reflection of me.” Certainly the case was made earlier that the teachers did not want to view themselves negatively nor have others view them negatively. For the teachers in this

study, the project, in essence, was a dynamic, ever-present symbol of the self. When progress toward and achievement of project goals were perceived and related, the reports were accompanied by a sense of accomplishment, confidence and comfort. When teachers perceived impeded progress, their statuses were related in conjunction with feelings of anger and disappointment and were coupled with excuses to explain their situations. The following statements demonstrate the relationship between the teachers' progress toward their goals and their perception of self:

I enjoyed it. I enjoyed it overall, because number one, it was a challenge. I was able to challenge myself to do something, and those are always the kind of, the best rewards, when you challenge yourself to do something, and then you complete it. And you know, like I said, I was proud of my end result, and I was proud of what I accomplished. ... You know, that's kind of a confidence builder, like, you were right, you did reach the final goals, and you didn't have to have someone saying all the way, "Keep going. You're fine. Keep going." I didn't need those pats on the back or anything like that, so it makes the reward sweeter.

It turned out a way that I, it turned out the way that I really wanted and I'm, I feel successful.

I'm just more comfortable overall. I'm more comfortable not worrying about whether I'm doing the right thing, and I'm more comfortable with, with what my project ended up being. Last time we talked, I was still worried about where it was going and what was going to happen and what was it going to end up like.

And now actually I'm seeing what it's ending up like, and I like it. I'm more comfortable in my own skin.

I'm angry at myself, because I feel like I should be further being I participated in this, but I'm not. Oh well.

In a moment I felt stupid, but I know, and that I knew I'm not stupid, but I couldn't, I couldn't move, so I felt disappointment. And I, I needed support, I needed encouragement from somebody.

Most people when they stated where they were, where they were, maybe myself too, started to give excuses as to why they were upset that they weren't progressing as fast as they were supposed to. And I was fascinated by their, their rationalizations or whatever you want to call, and I find myself supporting them every time. You know, I can understand why you did this ... I was disappointed that I didn't get, you know, that I wasn't along as I should have been, and I had excuses why I wasn't there if you remember it. I could tell everybody why. It was either Sally was sick, or I had my wife, blah, blah, blah.

Comments relating assessment of self specifically to progress toward goals were abundant in the data set. Besides responses tied to progress, the teachers also expressed perceptions of self based upon their general learning. Like the patterns present in relation to progress, individuals noted positive feelings when they perceived themselves as knowledgeable and capable. Conversely, when the teachers felt confused or lacking, they

related negative feelings. These patterns are evident in the following participant responses:

I'm one of those people who when I know how to do something, there's no longer self-doubt.

I never expected the support from outside our circles, which I have, and I'm really on a high right now, as far as where is this going to lead. And, you know, for the record on the interview, you know I always want to be first to do something, and I'm going to have the opportunity to be the first ISS teacher in the county to pull off this thing. And, you know, whether it's the best or the worst, it doesn't make any difference. I was the first, and they all can build on me, and that's all I want. That's an ego trip for me.

When I was confused, I was confused, and all those emotions went along with that.

I'm aware that I have to build up, I have to improve myself, I have to become more self-comfortable, self-esteem on myself. ... Automatically I ask that my presentation, maybe somebody isn't going to like my project, show that I still need a little bit more self-confidence on myself ... everything is new for me, the school system, the relationship between teachers and students, and of course the English language. I have to ask my colleagues, I have to ask you fellow teachers

for helping me to construct a sentence to be, to use the proper words, to put words in order. All these things affect my self-confidence.

During the study, it appeared that progress toward goals and general learning were inherently tied to participant emotions. Those emotions were indicators of the participants' self-assessment.

In summary, the interrelation of the intrapersonal and academic categories are supported by several patterns in the data. The teachers in the study appeared to view goals, in this case a self-directed learning project, as a method of assessing themselves, and they preferred to achieve their goals by themselves. Individuals initially grappled with the realization they were in control of the learning process and noted pressure related to that control. Progress, or lack thereof, was directly connected by participants to their self-perception, with positive self-perception related upon progress and dissatisfaction associated with impeded progress. The teachers expressly connected feelings about their learning to their assessment of self; namely they reported feeling positively when they perceived themselves as capable and knowledgeable, and they described a negative impact upon self-perception when they did not feel capable and knowledgeable.

Interrelation of the Intrapersonal and Social Categories

The social category represents a body of data that illuminates participants' interactions with one another and the facilitator. As previously described, the teachers in the study appeared to see a reflection of themselves through interactions with and feedback from others. Further they seemed to recognize in others qualities that they themselves valued, such as kindness or enthusiasm. For the teachers, assessment of self

was constant, and patterns in the data suggest that individuals constantly sought to display a positive image to and receive positive feedback from others. It is this posturing by participants to increase the opportunities for a positive reflection of self that supports the interrelation of the intrapersonal and social categories.

This section relating the connections between the intrapersonal and social categories will be presented in order of the patterns that provide evidence of the interrelation. First, teachers' concern for their appearance in front of others, both participants and nonparticipants, will be discussed. Next, use of the group for comparative self-assessment will be related. Following, impact of feedback and affirmations will be described. Finally, importance of interactions, such as through camaraderie, sharing ideas, affirming others and helping others, will be presented.

As noted earlier, participants had a need to perceive themselves as capable and knowledgeable. In relation to the social category, this need manifested in a concern for appearance in front of others. Individuals noted a hesitancy for revealing weakness or lack of knowledge in front of others until they felt assured they would not be embarrassed or ridiculed. In addition, 1 participant even reported a calculated effort to achieve a particular status in front of others. The following responses exemplify the concern for appearance in front of others:

They will have another, the lab person will be there. I think [the technology coordinator] will be there, but one person can't take care of the 31 kids, it's physically impossible, so at least I will be there to help ... I'm their teacher ... I don't want to look bad in front of anybody, Vicki ... I would not want to have somebody say to me she hasn't got the vaguest idea what these kids are doing. I

can't imagine that our staff would do that, but I mean, I just, it would be hard for me to know that anybody could look at me and say, "Hmm, she doesn't know what she's doing."

There's no way that I can put together something, you know, in the past four days to have a project ready to go tonight that's going to make any sense to anybody but me and, that was not my goal. And so I'm not going to present anything and, you know, I'm seriously considering not going tonight, because everybody's going to look at me like I'm stupid. "Why the hell did she come? She's not got anything to share. She's not been here for two weeks. Poor old Troy, he had to do it all by himself," when I was supposed to help him. So, you know, I'm worried about that. ... It's a perception. ... Letting myself down is one thing. I can go be with myself. But to stand up in front of all of the group and say, "Well, I don't have anything. I'm sorry," that sounds so juvenile. It shows my lack of responsibility that I, lack of a responsibility I took for doing the project, and you know, I don't want people to think that I'm a loser.

I feel I'm self-confident sometimes because of the English. ... But sometimes I feel as a little child who is ashamed to say something, because I am afraid I'm going to embarrass myself, say something wrong or somebody's going to laugh on my comment or my words or whole sentence. Sometimes people cannot understand me, and then I'm not able to explain it a different way, and they're going to say it's a kind of gap between people.

The concern for appearance in front of others was lessened when the teachers perceived their safety in the group:

If I needed help that's, I figured they wouldn't, they knew I was there for a purpose and they wouldn't think, gosh doesn't she know this. You know, so that was kind of a nice feeling.

I didn't hesitate to ask them, and I even didn't think that they would humiliate me or just put me down because I didn't know something.

Beyond simply perceiving safety within the group, 1 participant recounted a scenario in which he determined to capitalize upon an opportunity to make a positive impression upon a group of peers not participating in the study:

I was the new kid on the block. You know, I sit in the room as a quiet person, and then I'm listening to the problems that they're having and, you know, and I share a few of mine. And I realize that that project that we're talking about, not only will it solve my problem but everybody else's. There my ego kicked in, and again it's the word of my, you know, and I realized that I could become somebody really quick in this very, very established group. I mean these people have been doing this for years and years and years, so the new kid, how can he make a name for himself, how can he become instantly respected but to do something for them. I want to be the first rather than working on it collaboratively. I think you know where I'm going with this. If I work on it on my own and then spring it on the group as, "This is what I have discovered," and then give it to them, then automatically I have built up ego status.

The teachers were concerned about how they appeared in front of others, but simultaneously they were assessing how others appeared. The progress of others provided individuals a reference point for their own progress. If a participant perceived the group to be progressing at a greater pace than they perceived themselves to be progressing, individuals perceived themselves poorly in comparison. Likewise, if the group was not as advanced as the individual, a positive self-assessment resulted. The following teacher comments demonstrate comparison to others for assessment of self:

The group for me, which is what I always do in a group, I use them to, whether we're supposed to or not, I use the group to see how I'm doing comparatively. You know, all our goals were different, but if people were stuck on something and I'm not stuck on something, and I have a clear mind as to, you know, what's going on and other people don't, I'm kind of like, okay, that's good. You know, I mean not that I would doubt, not doubting anyone in the group or anything like that but that's just the way I do everything. You know, if I'm in a, even when I took a defensive driving class one time, all right, well I know, you know, I know it and these please don't so I'm way ahead of them and if they're going to pass, you know, I know I'm going to.

Well, I just felt like I didn't have much to share with them. You know, I just feel like I don't have, when they're ready to talk, I wasn't ready to talk about what, you know, what I had, because I didn't have that much. You know, they were doing things outside the class, but I wasn't. And so I didn't feel I had as much to share as they would when they shared, but towards the end I was doing as much as

they were. I feel like towards the end I was, I guess they got a gangbuster start, and I kind of caught up at the end, so I didn't feel as quite that bad. The past couple of weeks I haven't felt as badly.

Oh, I feel good about it but I, yeah, yeah, I feel good about it. It was a high, you know, for a day. I feel really good about it. The best part about it is, you know, telling everybody else that, that I've got this plan. I mean that's, that's where the ego comes in, but now that it's done the next emotion that will be high will be at the end when I hand you the completed report, which would be better than anybody else's.

In addition to assessing others and comparing one's own progress to them, the teachers also based their self-perceptions upon feedback and affirmations they received from other participants. It is important to note that individuals responded to their perceptions of the feedback, or lack of feedback, from others. Also, affirmations led individuals to feel assured in their actions and motivated them to continue working toward their goals. When participants perceived positive feedback and affirmations, they reported positive feelings. When they perceived negative feedback or lack of consideration, they noted feelings of dissatisfaction and disappointment, as in the following statements:

That's a type of encouragement to do more if I get a positive feedback from, from somebody from my group or, or from partners that give me, that motivate me to do more and to work more.

It was one of those things that you just need. I like the pat on the backs every now and then so that, so that you know what you're doing is not going unnoticed.

I did the best I could. I, I mean always looked for affirmation I was doing it the way you expected it even though every time you always told me it was fine.

He told me he was upset. It was not, I think that he wanted me to do the algebra tiles so that I could implement that here at school, and he felt like it was selfish because I chose to [change the project.]... Yesterday I could tell that his blood pressure was up, and I could, I could visibly see that he was upset ... he told me that I was treating him [poorly] by not telling him to come up there and to work on that project, that he decided he wasn't going to be my friend anymore ... he says he can't be my friend. I mean that's like, that makes me ill ... I guess I've never had someone say they are not going to be my friend, and that bothers me even though I don't think he means it ... I know he's saying that because I didn't do what I was supposed to have done on this project with him and he's pissed off about that.

There's the emotion but, you know, that emotion, it's, once I tell you about it I won't dwell on this. It's over. Remember I said I give advice. If you take it, you take. If you don't, you don't. You know everybody is where they are because of the choices they make. That's her choice. That's a disappointment she didn't take my advice.

Responses to feedback and affirmations were reactive, occurring after comments made by another participant. The teachers, though, by way of interaction with others, created opportunities for positive self-assessment. They expressed pleasure at sharing their ideas, affirming and helping others, as well as being a party to the camaraderie of the group. Initiated interaction, especially that of a supportive nature, led individuals to perceive themselves as worthy and capable. The following responses illustrate teachers' feelings about themselves that stem from sharing their ideas and affirming and helping others:

I'm a human being. I have my own personality, and I have my own ideas about learning. I have, I think kind of smart enough to sit up and put some ideas onto paper, to spread it around me. I'm capable to do so many things. I'm able to, I'm willing to change things around me in a positive way, and I think I can do it. And I feel wonderful if somebody shows me, includes me to do this and shows me, shows me the path.

That's an ego. I, I have said this before I'm sure, formally and on tape I am an egoist. I mean I'm, I'm here to, to prove that I am, to, to make myself feel worthwhile. To live and die and not contribute anything to anybody has got to be the saddest tragedy in the world, and I've taken that philosophy on since my father told me that when I was probably 15 or 20 s. It's just an extension of who I am. I like to make a difference in people's lives, and advice is how it can happen.

I think everybody in a staff development program like this, I think everybody is going to have to celebrate the others' successes and give them strokes along the way, that they're doing a good job. Because if we don't do that then, you know, I think it's human nature not to give it your best. But if you've got somebody there applauding along and encouraging you, and you know, maybe I could say the thing to the one person who would make them want to share their project with somebody else and take it and do bigger and better things with it than just for this one class.

It appeared that sharing their thoughts and feelings with others led the teachers to assess themselves positively. It could be that affirmation of others inherently attributed a sense of value to the affirmer. If this postulate is accepted, then having value as an affirmer would lead one to feel they were capable and knowledgeable, otherwise they would not have been able to give support or help to another.

In summary, the teachers in the study perceived a reflection of themselves within the interactions they experienced and the feedback they received from others. Individuals wanted to appear positively in front of others, and they compared group members' progress to their own as a form of self-assessment. Participants related either positive or negative responses to the feedback and affirmations based upon their perception of the giver's intent. Beyond reactive responses to others' comments, the teachers seemed to generate opportunities for positive self-assessment through sharing their ideas with others, as well as affirming and helping others. Through affirming and helping others, individuals appeared to feel a sense of capability and value. It is through these

connections between interaction with others and participants' self-assessment that the interrelation of the intrapersonal and social categories is found.

Summary of Interrelation of Categories

Data within the intrapersonal category indicated that participants had a desire to hold a positive self-perception. Besides merely thinking positive thoughts about themselves, the teachers used different methods to assess themselves, methods represented within the academic and social categories. They gauged their progress toward goals, and if they perceived their progress positively, they related positive impressions of themselves. If they felt their progress was less than they desired, or less than that of other participants, they offered excuses for lack of progress and noted sentiments of disappointment. Additionally, individuals drew perceptions of themselves based upon their interactions with and feedback from others. When they perceived positive feedback from others, the teachers felt motivated to continue working and related feeling positively. When an individual perceived negative feedback from others, they expressed feelings of dissatisfaction and disappointment.

Within this study, participants' academic and social experiences were so tightly interwoven into their intrapersonal experiences that their perspectives of the staff development program could not possibly be explained outside interrelation of these categories. Based upon the data, one could reasonably expect individuals to feel positively about themselves if they perceived themselves making progress toward their goals and perceived positive feedback from others. As if each category were physically connected, when a teacher moved either positively or negatively upon the academic or social continua, that same movement was reflected on the intrapersonal continuum

(Figure 5.1). Overall, the data indicates that teachers' perspectives of the staff development program were overwhelmingly intrapersonal.

Teachers' descriptions of the staff development program appeared to be positive, but discussion of the formal program occurred vastly less than participants' discussion of their own academic and social experiences and the feelings they had in response to them. In general, individuals' comments about the program centered upon its design characteristics: independent work, group setting, and self-directed learning. These very characteristics were, in part, the measures by which the teachers assessed themselves. With a minor degree of latitude taken, participants' perspectives of the staff development program can be equated with perspectives of themselves.

Summary of Findings

Three levels of findings were described in this chapter: statistical data, descriptive categories and interrelation of categories. Statistical data depicting teachers' self-directed learning readiness indicated an improvement in readiness of more than one standard deviation between the onset of the staff development program and its close. Qualitative data regarding teachers' perspectives of the staff development program disaggregated into three categories: intrapersonal, academic and social. The intrapersonal category conceptually represented teachers' perception of themselves, while the academic category represented progress toward goals and the social category represented feedback from others. The intrapersonal category was found to be the core category through which most of participants' behavior could be explained. Interrelation of categories rested upon the premise that participants appeared to constantly assess themselves, and perception of academic progress and social reflection were integral to that assessment. In essence,

participants' perspectives of the staff development program equated to their perspectives of themselves within in it.

CHAPTER 6

SUMMARY, DISCUSSION, AND IMPLICATIONS

The purpose of this study was to explore the perspectives of teachers participating in a self-directed staff development program that incorporates principles of action research. This research was conducted in order to answer the following questions: What thoughts and feelings did the teachers have as they participated in the program? What were the actions of teachers as they participated in the program? What meanings did the staff development program have for them? This chapter presents a summary of the study. As well, a discussion and implications of this study will be related.

Summary of the Study

A grounded theory research design was utilized to study the perspectives of five teachers participating in a self-directed staff development program based upon principles of action research. Data was gathered in the form of written journal responses, interviews with participants, participants' written learning plans, researcher observation, and audiotape recordings of staff development sessions. Teachers' perspectives were based upon intrapersonal, academic, and social experiences. Participants had a need to perceive themselves positively, and they viewed progress toward goals and feedback from others as forms of self-assessment. It appeared that the teachers' perspectives of the staff development program were equivalent to their perspectives of themselves within the program.

Research Design

The self-directed staff development program, and thus data collection, began the first week of February 2002. The researcher observed the teachers during staff development sessions and made audiotape recordings of dialogue. At the close of each of the eight weekly sessions, participants were asked to reflect their thoughts, feelings, and actions regarding the staff development program. Throughout the course of the program, two interviews were conducted with each participant, and a third interview was conducted with 4 of the participants after the close of the program. At the beginning of each interview, participants were asked to talk about their thoughts, feelings and actions regarding the staff development program.

Symbolic interactionism was the theoretical framework within which this study was designed. Symbolic interactionism centers upon the idea that individuals act upon things according to the meanings those things hold for them, and meanings are modified according to situations encountered. It was with this conception that the researcher analyzed data and determined teachers' perspectives of the self-directed staff development based upon principles of action research.

Three levels of findings were presented and discussed in chapter 5. Those levels included statistical data, descriptive categories, and interrelation of categories. Data from 5 participants revealed an increase in self-directed learning readiness, three descriptive categories, and interrelation of the two subordinate categories with the core category. Discussion and implications of this study were based upon these three levels of findings.

Discussion

The three levels of findings and how they represented teachers' perspectives of the staff development program were discussed in detail in chapter 5. The purpose of this chapter is to discuss some of the major findings as they relate to the body of literature. Each section will address one descriptive category and its corresponding literature and will conclude with researcher comments.

Intrapersonal Category

The intrapersonal category was comprised of the following subcategories: self-perception, sense of high achievement, pressure on self, concern to "do right," time, and feelings about learning. This category largely centered around participants' desire to feel positively about themselves and have others view them positively. A positive self-perception was noted in conjunction with perception of progress toward goals and a perception of positive feedback from others. As teachers' perceptions of their progress and feedback from others declined, sentiments of dissatisfaction and disappointment were noted.

These findings parallel those of prior studies regarding self-directed learning and action research (see Table 6.1). Garrison (1993) noted that learners' self-direction was manifested intra-personally by critical reflection, and that the purpose of learner control was to confirm knowledge structures. Similarly, DeJoy and Herrmann (1993) found that when self-directing their learning, adults experienced powerful emotions that stemmed from deeply established beliefs and perceptions as well as their concept of self. Robertson (2000) discovered that participants engaging in independent action research began to develop a critical self-awareness while engaged in learning. The findings of all these

studies, as well as the current one, support Dewey's (1938) assertion that each experience one encounters changes the individual, whether desired or not, and thus impacts them both emotionally and intellectually.

Table 6.1

Intrapersonal Category Findings and Their Relation to the Professional Literature

| Finding | Relation to professional literature |
|--|---|
| Teachers desired changes or at least a positive maintenance of their self-image. | <p>Lindeman (1926) Above all adults want to improve themselves.</p> <p>Duron (1994) Participants expressed the need to grow.</p> <p>Knowles, et al. (1998) Internal desires, such as the need for esteem, are the motivation behind adults' learning.</p> |
| Teachers experienced frustration and disappointment when faced with barriers to their learning. | Sardo-Brown (1995) Teachers experienced frustration with the time needed to conduct action research while working full-time. |
| Statistical data depicted an improvement in self-directed learning readiness between the onset and close of the staff development program, lending credence to participants' self-assessed progress. | Long on Knowles (1993) While adults may need assistance to develop self-directedness, they do become more self-directed over time. |

It appears that the teachers in this particular study desired changes, or at the very least maintenance of a positive self-image. Based upon participants' sense of high achievement, which was accompanied by pursuit of challenges, the case could be made participants did seek change. According to Lindeman (1926), adults foremost want to

improve themselves. As in this study, Duron (1994) also described participants' expressed need to grow. Beyond simply the need to change and grow, Knowles (Knowles et al., 1998) suggested that internal desires, such as a need for esteem, desire to achieve, or urge to grow, were the motivation behind learning. The findings of this study support his suggestion.

Since the need to view themselves positively was so powerful, it is not a surprise that the teachers experienced frustration and disappointment when they faced barriers to their progress. Teachers participating in others studies involving action research or self-directed learning expressed similar frustrations. Sardo-Brown (1995) described teachers' expressions of frustration with the time needed to conduct action research while working full-time. Further, participants in Vulliamy's (1991) study described feelings of anxiety resulting from conflicting demands from home, work, and their action research. Within this study, it appeared personal and professional demands as well as time constraints impeded individuals' progress toward goals and thus impacted their self-assessment.

As barriers impacted teachers' self-assessment, so did moments of progress or advancement. Often positive feelings were associated with new learning or completion of a component of the project. While advancement toward goals was not objectively measured, nor a focus of this study, statistical data depicted at the very least group improvement in self-directed learning readiness, and as such lends credence to participants' self-assessed progress. Precedence for improvement in self-directedness was noted by Knowles (Long on Knowles, 1993) when he expressed that while adults may need assistance in becoming more proficient self-directed learners, they do become more self-directed over time.

Quite directly, the findings of this study support those of previous studies that suggest self-directed learning and action research elicit an intrapersonal response from participants. As well, data supports that learning within these formats leads individuals to critically evaluate themselves. Further, parallel to other studies, evidence supports the implication that teachers' lives are wrought with a number of personal and professional demands, and a sense of anxiety results when the need to improve is unmet due to impeded progress. This study also supports Knowles's (Knowles et al., 1998; Long, 1993) assertion that with support and time, individuals will become more self-directed and their internal desires for improvement will be realized.

Academic Category

Descriptive Data

The academic category was comprised of the following subcategories: staff development program, reasons for learning, learning plan, project, methods of learning, and response to learning. The academic category chronicled the learning process of teachers in the study. All teachers initially volunteered for the staff development program to support the researcher, but quickly realized personal benefits they could gain through the program. Teachers characterized the staff development program as individualized, participatory, choice-oriented, and free of boundaries, and they noted as its benefits the opportunity to pursue a goal, "forced" completion of a learning activity, time provided to work, learning based upon individual interest, learning plan-organized learning, opportunity to work independently, and group camaraderie and support. Reasons for learning were both personal and professional. The teachers spent time both during and outside sessions working on their projects, and they noted changes and difficulties in

completing their projects. As well, they often shared their work with others. Methods of learning occurred through a number of formats and were characterized by independence and efficiency. Responses to learning were both positive and negative, related to teachers' experience, related to their professional roles, related to student learning, and related to learning in general.

The findings of this study supported findings of previous studies in regard to reasons adults learn (see Table 6.2). Knowles (Knowles et al., 1998) stated that adults' motivation to learn is intrinsic and incorporates a personal benefit. Certainly this finding was echoed within the current study, as teachers quickly identified a personal benefit to participation in the staff development program after volunteering to participate as a form of support for the researcher. Similarly, Tough (1971, 1979) reported that adults conducted learning projects primarily to gain knowledge, insight, or understanding, or to improve a skill or attitude or to change behavior, and he asserted that their chief motivation for learning was goal-oriented (Bonham, 1992). Further, Tough (1992) found that adults do not engage in learning because they cannot perform their job, but they learn in order to do a good job. In this particular study, all participants selected projects that either allowed them to become more effective instructors or scripted development of a skill that would lead them to be more effective in their professional roles. While data from this study supports Tough's assertions that adults' learning is goal-oriented and adults learn to do a good job, it must be considered that participants were led to identify a goal for professional growth and pursue it as part of the staff development program design. Synonymous with the findings of this research, though, were the findings of an action research study conducted with school administrators. Robertson (2000) found that

not only were participants interested in what they learned, they were committed to incorporating what they learned in their schools and at the classroom level. Within this study as well, all participants viewed implementation of their learning as an integral component of their projects.

Table 6.2

Academic Category Findings and Their Relation to Professional Literature

| Finding | Relation to professional literature |
|--|---|
| Teachers identified a personal benefit to participation in the staff development program. | <p>Knowles et al. (1998) Adults' motivation to learn is intrinsic and incorporates a personal benefit.</p> <p>Tough (1971, 1979) Adults conduct learning projects to gain knowledge, insight, or understanding, or to improve a skill or attitude, or to change a behavior.</p> |
| All participants selected projects that would allow them to be more effective in their professional roles. | Tough (1992) Adults do not engage in learning because they cannot perform their job, but in order to do a good job. |
| All participants viewed implementation of their learning as an integral component of the project. | Robertson (2000) Participants engaged in action research were not only interested in the topic, but were committed to incorporating learning within their schools and at the classroom level. |
| Benefits of the self-directed staff development program were freedom to work independently and the support generated from group members. | <p>Dewey (1938) Individuals must be aided in exercising freedom in learning.</p> <p>Knowles et al. (1998) While adults may need assistance in becoming more proficient self-directed learners, their self-concept must still be that</p> |

| Finding | Relation to professional literature |
|--|---|
| | of an autonomous, self-directed learner. |
| A benefit of the self-directed staff development program was learning based upon individual interests. | <p data-bbox="865 363 1435 468">Kasworm (1992); Tough (1992) The same benefit was noted in regard to adult learning studies.</p> <p data-bbox="865 506 1435 611">Auger and Wideman (2000) The same benefit was noted in regard to an action research study.</p> <p data-bbox="865 648 1435 789">Corabi (1995); Craft-Tripp (1993); Duron (1994) The same benefit was noted in regard to self-directed learning studies.</p> |

Benefits of the staff development program reported by the teachers reiterated those described by adult learning theorists and participants of other professional development programs incorporating action research and self-directed learning. Dewey (1938) suggested that individuals must be aided in exercising their freedom within a learning experience. Knowles (Knowles et al., 1998) purported that while adults may need assistance in becoming more proficient self-directed learners, their self-concept must still be that of an autonomous, self-directing learner. These assertions coincide with the findings of this study, as two particular benefits of the study reported by teachers were the freedom to work independently and support generated from the group.

Additional benefits attributed to the program were the opportunity to pursue a goal, “forced” completion of a learning activity, time provided to work, learning based upon individual interest, and learning plan-organized learning. Of these additional benefits, only one, learning based upon individual interests, was widely reported in other studies of adult learning (Kasworm, 1992; Tough, 1992), action research (Auger & Wideman,

2000), and self-directed learning (Corabi, 1995; Craft-Tripp, 1993; Duron, 1994). It appears that “forced” completion of a learning activity, time provided to work, and learning organized through a learning plan were benefits unique to the self-directed staff development program implemented within this study.

It is encouraging that findings within the academic category paralleled those of early adult learning researchers (Kasworm, 1992; Knowles et al., 1998; Tough, 1971, 1979; Tough, 1992) regarding individuals’ reasons for learning and the benefits they derive from self-directed learning, as the self-directed staff development program based upon principles of action research was built upon their findings and theories. Further, it is encouraging that benefits of previously studied professional development programs incorporating action research and self-directed learning were maintained within the present study, as components of those programs were also incorporated within the staff development program implemented in this study. Of importance, though, are the unique benefits ascribed to the self-directed staff development program based upon principles of action research: “forced” completion of a learning activity, time provided to work, and learning organized through a learning plan. Particularly time and a structure for self-directed learning were designed into the program based upon factors found to inhibit success of previous professional development programs based upon action research and self-directed learning. Those inhibiting factors included lack of resources (time, materials, and training), inadequate teacher readiness, lack of preparation for self-directed professional development, anxiety in balancing personal and professional demands and lack of time to reflect on learning. The staff development program employed within this study appears to have improved upon previous programs on at least two accounts: time

and preparation for self-directed professional development. Of note, time to reflect upon learning was designed into each staff development session, but teachers did not relate it as a benefit of the program.

Interrelation of Academic and Intrapersonal Categories

In regard to the interrelation of the academic and intrapersonal categories, a direct connection linking progress toward goals and the conception of self was not reported. While unique to this study was teachers' expressed relation of their learning to their assessment of self, the concepts of adult self-assessment and the connection of emotions and intrapersonal qualities to learning are not novel. Wood et al. (1993) noted that adult learning involves the ego and may produce anxiety. DeJoy and Herrmann (1993) found that adults are often unprepared to deal with their emotions and responses to learning challenges. Further, Baldonado (1993) stated that internal variables, such as critical thinking skills, diagnostic reasoning, and problem solving strategies are critical to learning. Lastly, Corabi (1995) found that learning in a self-directed format led teachers to feel motivated and empowered. Wholly, the findings of this study connect findings of previous studies and provide insight into how learning and emotions are manifested intrapersonally by the learner, expressly through self-assessment based upon progress toward goals.

Summary

In summary, findings within the academic category supported previous findings in adult learning, action research, and self-directed learning. Motivations for learning and benefits of learning through action research and self-directed learning were parallel. The unique benefits of the staff development program employed in this study were time

provided within the session and the structure for development provided through the learning plan. Further, while the concepts of adult self-assessment and connection among emotions and internal qualities were present in the professional literature, a direct relation among progress toward goals and self-assessment were unique to this study.

Social Category

Descriptive Category

The social category catalogued participants' descriptions of and interactions with each other and the researcher. The category was comprised of four subcategories: group members, type of interaction, researcher/facilitator, and researcher interaction with group members. The teachers largely described and responded to one another positively. Only when individuals perceived themselves as excluded from the group or disregarded by a group member did they express a negative response to others in the study. Interactions between the teachers included affirmations, solicitations or offers for help, dialogue about projects, and socialization. The researcher was portrayed positively by the participants, was described as having a facilitative role in the staff development program, and was not depicted as holding more importance than any other member of the group. Researcher interaction with the teachers generally included affirmations and instructional discourse. Data appear to indicate that interaction with others provided individuals a reflection of themselves and an opportunity for positive self-assessment.

The findings related within the social category align with Lindeman's (1926) supposition that adults want to express themselves. As well, the data verify Knowles's (1975; Long on Knowles, 1993) assertion that a climate of warmth, respect, support, and trust must be emphasized when self-directed learning occurs within a group setting. In

fact, credence for Lindeman and Knowles and the importance of social interaction was not only evident in this study, but also in other studies of action research (see Table 6.3). Feldman (1998) reported that participants in his study described small groups as an important forum for discussion. Moreover, Auger and Wideman (2000) noted as the key finding of their study the importance of networking and mentoring to participants, especially as it related to their development as active listeners and critical friends for one another. As in these two studies, for teachers in the self-directed staff development program, pleasure with interaction stemmed from affirmations and mutual support.

Table 6.3

Social Category Findings and Their Relation to Professional Literature

| Finding | Relation to professional literature |
|--|---|
| Teachers largely described and responded to one another positively. Interactions included affirmations, solicitations and offers of help, dialogue about projects, and socialization. Pleasure stemmed from affirmations and mutual support. | <p>Lindeman (1926) Adults want to express themselves.</p> <p>Knowles (1975); Long on Knowles (1993) A climate of warmth, respect, support, and trust must be emphasized when self-directed learning occurs within a group.</p> <p>Feldman (1998) Participants described small groups as an important forum for discussion.</p> <p>Auger and Wideman (2000) Networking and mentoring were important to participants, especially as they related to their development as active listeners and critical friends for one another.</p> |
| When individuals perceived safety in the group, the concern for their appearance in front of others lessened. Affirmation from others was a source of motivation. | Corabi (1995) Teachers participating in a self-directed professional development option reported principal support and feedback created a |

| Finding | Relation to professional literature |
|---------|---|
| | non-threatening atmosphere for risk-taking. |

It was noted within interrelation of the intrapersonal and social categories that when individuals perceived safety in the group, the concern for their appearance in front of others lessened. As well, affirmations from participants and the researcher were a source of motivation. An explanation of these findings may be found in another study of self-directed learning. Corabi (1995) found that teachers exercising a self-directed professional development option valued principal support and feedback, as they felt it created a nonthreatening atmosphere for risk taking. While the researcher/facilitator in this study did not hold any authority over participants, she was responsible for setting the climate of the staff development program (Knowles, 1975). And, according to Thorndike (1935), providing for discussion of individuals' experiences, problems, and concerns shifts characterization of a teacher from that of master to that of friend. It is possible that because of their feelings for the researcher and their observation of her affirmations to other participants that the teachers were led to feel a sense of safety and comfort within the group, and that safety was validated by their own interactions with others in the group.

Interrelation of Social and Intrapersonal Categories

While the importance of interaction with others was present across the extant literature on adult learning, action research, and self-directed learning, the interrelation of social interaction and self-perception was not specifically related. The findings of this study appear unique in that they illuminated the intrapersonal impact of teachers'

perceptions of the feedback they received from others. Further, it showed teachers' resulting self-perceptions impacted their perspectives of the self-directed staff development program. These findings are significant in that they suggest it is critical for learners to encounter affirmation and positive interaction with others when self-directing learning within a group setting, as this affirmation leads to increased motivation and a feeling they are capable and knowledgeable and subsequently to validation of established beliefs about themselves (DeJoy and Herrmann, 1993). Indirectly, therefore, findings of this study on the relationship between social interaction and self-perception support Knowles's contention that internal desires, such as the need for esteem, are the motivation for learning. Simply stated, findings from both Knowles and this study suggest individuals learn for personal reasons, often reasons that lead to a positive self-perception, and interaction with others provides a tool for developing that perception.

Summary

In summary, both the findings of this study and the extant literature reveal the importance of interaction with others for adult learners engaged in action research and self-directed learning. Specifically, a climate of trust and mutual support leads individuals to feel motivated and encourages risk taking. The role of principals and staff development facilitators is that of setting this type of climate through affirmation of and discourse with participants. Findings unique to this study concern the intrapersonal impact of social interaction upon the participants. These findings indirectly support Knowles's contention that adults' primary motivations for learning are internal, such as the need for esteem. The role of others, through interaction, is that of providing feedback by which individuals will assess themselves, and thus develop their sense of self.

Summary

The findings of this study both support and extend beyond previous research on adult learning, action research, and self-directed learning. Data within the intrapersonal category paralleled that of previous studies and suggested that self-directed learning and action research elicit an intrapersonal response from participants, lead individuals to critically evaluate themselves, and that, with support and time, adults become more self-directed. Findings within the academic category supported previous findings that motivations for learning incorporate a personal benefit, and specific benefits of learning through action research and self-directed learning were the opportunity to pursue an area of interest and the ability to work on one's own. Benefits uniquely ascribed to the staff development program employed in this study were time provided within the session and structure for development provided through the learning plan. In regard to the social category, findings of both this study and the extant literature reveal the importance of interaction with others for adult learners engaged in action research, self-directed learning, and the role of the facilitator in setting a safe, supportive climate for this interaction. Findings unique to this study illuminate the intrapersonal impact of social interaction upon the participants and specifically the role of feedback for self-assessment and subsequently self-perception. These findings indirectly support Knowles's contention that internal desires, such as the need for esteem, are adults' primary motivation for learning.

Implications

Implications of the research on teachers participating in a self-directed staff development program based upon principles of action research apply to future research,

higher education and K-12 staff developers. First, suggestions for future research are discussed. Next, implications for higher education are presented. Finally, implications for K-12 staff developers conclude this section.

Implications for Further Research

This study grew out of the need for a professional development program that included the following characteristics: job embedded, credit bearing, based upon adult learning principles, provided for assessment of learning, and could be conducted outside traditional school hours. Based upon their adherence to these criteria and data supporting their effectiveness for adult learners, the processes of self-directed learning and action research were superimposed upon one another to create the self-directed staff development program based upon principles of action research. This staff development program was designed to incorporate the benefits of both these models, benefits that included learning within a group, permitting individualized pursuits, providing learning based upon individual teachers' specific needs and interests, and provision for evaluation of learning. Further, the program design incorporated other components described as important in previous studies of action research and self-directed learning, such as time provided to work on projects during the sessions, regular opportunities for reflection on learning, and guidance in self-directed learning. It appears, without a formal program assessment, that the staff development program met its design objectives.

The purpose of this study was to explore teachers' perspectives of the self-directed staff development program. Analysis of their responses led to the emergence of three distinct categories of experience: intrapersonal, academic, and social. It is within these domains that opportunities for future research are abundant.

Findings within the intrapersonal category indicated that participants desired to feel positively about themselves. They created opportunities for self-assessment through comparing themselves to others, pursuing challenges, pressuring themselves to complete goals and striving to “do right.” The teachers perceived themselves to be in control of their learning, and therefore were responsible for learning outcomes. These outcomes equated to indicators of knowledge and ability for the participants, and hence a snapshot of the self. The need to maintain a positive self-perception led individuals to become vested in the learning. In essence, the teachers themselves were the greatest variable in determining the perspectives they would have of the self-directed staff development program.

Conversely, in a study of a single teacher’s comprehensive staff development experience, it was found in traditional staff development programs that the facilitator was the key variable impacting the teacher’s perspective of a staff development program (Husby, 2001). In both of these cases, the individual being in control of learning, and as such in control of meeting the individuals’ needs, was the variable most likely to impact teachers’ perspectives of the staff development. Based upon the implications of both of these studies, further research into the impact of control may illuminate avenues for vesting teachers personally in staff development programs that are not self-directed and must deliver predetermined content. In both of these studies teachers described themselves as largely passive and anonymous in typical staff development programs, but in the current study, individuals noted consistent engagement in learning and a concern for their appearance in front of others. It is possible that in-depth research into the dynamics of self-assessment and self-perception could lead to identification of methods

for capitalizing upon adults' internal needs, for the purpose of investment in learning, in both self-directed and instructor-led programs. And lastly, study of the relationship between anonymity in a group and lack of personal investment could provide insight into the negative perspectives many teachers have of traditional staff development programs.

Within the current study, findings pertaining to the academic category supported those of previous research in adult learning, action research, and self-directed learning. There were, though, benefits uniquely attributed to the self-directed staff development program employed in this study. Those benefits were time provided to work on projects during the sessions and structure for self-directed development provided through the learning plan. As well, statistical data indicated an increase in readiness between the onset and close of the program. These findings, while they do not conclusively identify the staff development program as the cause for improvement in self-directedness, suggest that the program could have contributed to the improvement. A step toward supporting that link could be made through a replication of the study, but with inclusion of a control group. Such a study could also focus on the specific changes in self-directed readiness that individuals experience after participating in the program and identify particular activities that develop readiness for self-directed learning. Also, research on individuals' desire to achieve their learning goals on their own and the impact assistance has upon their perception of themselves as autonomous, self-directing learners could provide staff development facilitators guidelines for developing learners' self-directedness without usurping their control of the learning experience. Generally, future research related to the academic component of self-directed learning should isolate factors associated with both

learners and facilitators that advance self-directedness, so that those factors can be designed into the framework of future self-directed staff development programs.

Findings within the social category paralleled those of other studies in revealing that interaction with others was important for teachers engaged in action research and self-directed learning as a form of professional development. Unique to this study, though, was illumination of the intrapersonal impact that interaction with others had on the teachers' perception of self. Analysis of data related to participants' interactions did not include a verification of teachers' perceptions of the feedback they received from others, but analysis of participant responses to group members did indicate that individuals had both positive and negative responses to one another. As the feedback of others was so critical to the self-perception of participants in this self-directed staff development program, future research could identify components of feedback and affirmation that are motivating to self-directed learners and engender a sense of safety among group members. Such data could greatly aid facilitators in supporting self-directed learners, and as previously suggested with factors impacting improvement in self-directedness, could be incorporated into the design of future self-directed staff development programs.

The greatest contribution of this study is the development of a structured, defined, credit-bearing, self-directed staff development program that permits for assessment of learning. Such a program was not present in the literature. The reason this contribution is so important is that it opens the gateway to study of this format of learning as a viable tool in teacher development and school improvement. From this base program, further research could identify areas of improvement that lead to a more precision design,

alternative delivery models, and eventually to studies of the model's effectiveness in improving student achievement. This type of staff development program could potentially revolutionize how we develop both our teachers and our students.

Implications for Higher Education

Sparks and Hirsch (1997) noted that in order for teachers to “model appropriate behavior, guide student activities, and provide various forms of examples rather than use common instructional practices that emphasize telling and direction” (p. 9), training must be delivered in a format that allows teachers themselves to develop and practice these activities. Understanding that this is the case, it would stand that teachers must be provided self-directed learning experiences if they are to have knowledge necessary to incorporate this format of learning in their own classrooms. As foundational and advanced teacher training occurs within the university setting, opportunities are abundant to create self-directed learning experiences for preservice and practicing teachers.

Besides simply providing another tool for the teacher's bag of tricks, incorporation of self-directed learning into teacher training courses may also lead to a stronger cadre of educational professionals. Through the individualized development of teachers' areas of weakness, the educational workforce could be strengthened one professional at a time. Because content area experts are not necessary to facilitate this type of learning, one trained facilitator could support learners from a diverse array of fields.

Besides a defined, separate program, self-directed learning projects could easily be incorporated into any teacher training course. Although a more comprehensive self-directed learning experience could be gained through the 8-week, structured, self-directed

staff development program, it is worth exposing teachers even to a limited experience for the benefit it provides them as an individual and as an instructor. The learning plan alone, given its global application, could be extracted from this study and applied in a standard, content-based course to individualize learning. Use of just this one tool would expose teachers to the basic guidance necessary to develop themselves professionally.

This researcher firmly believes that if teacher preparation programs included at least some form of self-directed learning, teachers in training would be greatly benefited. They would be provided the training to identify and improve upon their areas of weakness. They would also be armed with the tools for lifelong learning. And as Sparks and Hirsch (1997) asserted that teachers teach from their own experiences, it stands that this training and these tools would eventually be modeled within the teachers' own classrooms.

Implications for K-12 Staff Developers

The same rationale for including self-directed learning experiences at the university level applies as well to training delivered through K-12 staff developers. Further, as teachers participating in staff development within schools are simultaneously working with students, self-directed staff development provides a unique opportunity for individuals to address the specific challenges they face within their classrooms. Every teacher's comprehensive set of experiences and growth areas are different, and often packaged staff development programs are ineffective in meeting their specific needs. The staff development program employed in this study could be conducted at any school and complement school-wide improvement initiatives. And, by its nature, this program addresses individual needs and has a greater potential for application in the classroom.

The self-directed staff development program based upon principles of action research could be taken in its entirety and implemented step-by-step as it was in this study. The model was designed for use both in and beyond this research. However, before doing so, staff developers are cautioned to do the following: gain a foundational knowledge of self-directed learning and action research, engage in this type of experience by working through the learning plan before attempting to facilitate the program, be cognizant of the emotional impact this type of learning has on participants, and become familiar with the objectives and intended benefits of the program. The more thorough the facilitator's knowledge of the process, the more likely the participants will receive the guidance and support required in this kind of program.

To summarize, given that teachers must be provided a variety of learning experiences if they are to model a variety of experiences for students, K-12 staff developers must be charged with the task of bringing these experiences to teachers. Key components (intrapersonal, academic, and social) of the teachers' perspectives of the program were described within this research and thus illuminated for facilitators the experiences that future teachers engaged in this type of staff development may encounter. To conclude, this study arms staff developers with the tools, the methods, and the insight to bring teachers through a self-directed staff development program based upon principles of action research.

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APPENDIX A

STATE AND SYSTEM LEVEL MANDATES FOR STAFF DEVELOPMENT

| Agency of origin | Regulation | Date | Description, as relates to staff development | Level of impact | Consequences for non-compliance | Enforcement agency |
|------------------|---------------------|------|---|-----------------------------------|--|---------------------|
| GA | O.C.G.A. 20-2-167 G | 2001 | Budgets and funding for public school systems described; staff development considered a major program component, and as such must be accounted for in budget; State Board of Education charged with governing process. | Institution | Withholding of funding. | BOE |
| GA | O.C.G.A. 20-2-182 G | 2001 | Describes program weights in funding; weight for staff development should be 1.5% of salaries of all certificated, professional personnel; funding may be used throughout fiscal year in order to meet needs determined by local board of education in comprehensive staff development plan; funds may be used for staff development activities outside employee's normal contract hours. | Institution | Delay, reduction or withholding of funding. | BOE |
| GA | O.C.G.A. 20-2-200 G | 2001 | (A) PSC charged with certifying professional employees; provides for classifications of certificates; requires computer-skills proficiency demonstrated by: (a) exam, or (b) evaluation by personnel external to school system after staff development | (A) Individual (B) Institution | (A) Non-renewal of Clear Renewable certificate and possibly rejection of any certificate; (B) Withholding of funding. | (A) PSC; (B) BOE |

| Agency of origin | Regulation | Date | Description, as relates to staff development | Level of impact | Consequences for non-compliance | Enforcement agency |
|------------------|---------------------|------|---|------------------------------------|---|----------------------|
| | | | participation; conditions under which a Clear Renewable certificate will be granted; (B) requires school systems to provide staff development, upon request, to employees failing state-required assessments. | | | |
| GA | O.C.G.A. 20-2-201 G | 2001 | (A) Requires educators to complete 5 or more quarter hours in identification and education of special needs students; course must be approved for credit by PSC; (B) local school systems required to provide certificated personnel with 12 clock hours or in-service each calendar year; in-service should address identified needs determined by evaluation and focus on improvement of student achievement. | (A) Individual (B) Institution | (A) Nonrenewal of certificate; (B) Withholding of funding. | (A) PSC; (B) BOE |
| GA | O.C.G.A. 20-2-203 G | 2001 | Clear Renewable certificates are valid for 5 years. | Individual | Not applicable. | PSC |
| GA | O.C.G.A. 20-2-210 G | 2001 | (A) Personal professional development plans must be developed for certificated personnel for whom deficiencies were identified during the evaluation process; participation in staff | (A) Institution; (B) Individual | (A) Withholding of funding; (B) Local school system may consider contract of employment void or select to refuse | (A) BOE; (B) GCPS |

| Agency of origin | Regulation | Date | Description, as relates to staff development | Level of impact | Consequences for non-compliance | Enforcement agency |
|------------------|---------------------|------|---|-----------------|--|--------------------|
| | | | development and application of concepts in classroom and school activities must be considered in evaluation of certificated personnel; (B) teachers whose decisions to remove students from their enrollment due to behavior have been overturned more than two times may be required to attend staff development in classroom management or other skills identified by the principal. | | renewal of subsequent contract of employment. | |
| GA | O.C.G.A. 20-2-211 G | 2001 | Local school employees hired and assigned by local board of education upon recommendation of superintendent; BOE sets minimum qualifications of employees; local school systems must provide written notice no later than April 15 if a contract will or will not be renewed; upon request by the employee, the local school system must provide written explanation for nonrenewal of employment contract. | Institution | Employees not meeting minimum requirements of employment are not considered in calculation of funding; if an employee does not receive notice by April 15 of contract termination, they shall be employed for the ensuing school year. | BOE |

| Agency of origin | Regulation | Date | Description, as relates to staff development | Level of impact | Consequences for non-compliance | Enforcement agency |
|------------------|---------------------|------|---|-----------------|---------------------------------|--------------------|
| GA | O.C.G.A. 20-2-230 G | 2001 | All PSC-certificated personnel shall be provided opportunities to continue their professional development throughout their careers; primary purpose of local level staff development is implementation of this policy; additional purposes of local level staff development are incorporation of scientific research into practice and to address professional needs and deficiencies identified during evaluation. | Institution | Withholding of funding. | BOE |
| GA | O.C.G.A. 20-2-232 G | 2001 | Local school systems must develop and submit for approval to the BOE 3-year comprehensive staff development plans; plans must be reviewed annually; staff development programs should address needs of personnel as identified in the annual evaluation process; local school systems encouraged to collaborate with colleges and universities and state institutions in planning staff development programs. | Institution | Withholding of funding. | BOE |

| Agency of origin | Regulation | Date | Description, as relates to staff development | Level of impact | Consequences for non-compliance | Enforcement agency |
|------------------|------------------|------|---|-----------------|---|--------------------|
| BOE | Rule 160-3-3-.04 | 2000 | Lists definitions of staff and professional development terms; lists required components of the Comprehensive Plan for Staff and Professional Development; describes components of optional Certification Renewal Plans (including SDU requirements); lists components required for Staff Development Program in the Identification and Education of Children with Special Educational Needs. | Institution | Withholding of funding if Comprehensive Plan for Staff and Professional Development is not approved; loss of authority to grant staff development credit if Certification Renewal Plan is not approved. | BOE |
| BOE | Rule 160-5-1-.22 | 2000 | Personnel employed in an area for which the PSC grants a certificate must hold a valid certificate in order to be employed. | Institution | Employees not meeting minimum requirements of employment are not considered in calculation of funding. | BOE |
| BOE | Rule 160-5-2-.05 | 1995 | Regulations for computation of experience; local school systems responsible for verifying, evaluating, and documenting experience; placement on salary scale for individuals holding Clear Renewable, Provisional, and Nonrenewable certificates. | Institution | Withholding of funding. | BOE |

| Agency of origin | Regulation | Date | Description, as relates to staff development | Level of impact | Consequences for non-compliance | Enforcement agency |
|------------------|--------------------------------------|------|---|-----------------|--|--------------------|
| PSC | Teacher Certification Rule 505-2-.08 | 2001 | Discusses Special Georgia Requirements for certification renewal: (a) coursework in the identification and education of students with special educational needs; (b) coursework in the Teaching of Reading; (c) computer skill proficiency on an exam or through a PSC-approved training course equivalent; Individuals holding a National Board for Professional Teaching Standards valid certificate are considered to have met the requirements. | Individual | Nonrenewal of Clear Renewable certificate, and possibly rejection for any certificate. | PSC |
| PSC | Teacher Certification Rule 505-2-.10 | 2001 | Delineates specifications of certificate types, titles, levels, fields, and categories; a Clear Renewable certificate indicates the holder has met all requirements for certification; standard renewal requirements must be met for the Clear Renewable certificate to be renewed. | Individual | Nonrenewal of Clear Renewable certificate, and possibly rejection for any certificate. | PSC |
| PSC | Teacher Certification Rule 505-2-.13 | 2001 | Standard renewal requirements listed: (a) must earn 10 quarter hours, 10 SDUs, or a combination of the two during the 5-year period Clear Renewable certificate | Individual | Nonrenewal of Clear Renewable certificate, and possibly rejection for any certificate. | PSC |

| Agency of origin | Regulation | Date | Description, as relates to staff development | Level of impact | Consequences for non-compliance | Enforcement agency |
|------------------|---|------|---|----------------------------|--|-----------------------------------|
| | | | is valid; (b) Special Georgia Requirements, college coursework and staff development coursework may counted toward the requirement (college coursework must be taken at a regionally accredited college or university). | | | |
| PSC | Teacher Certification Rule 505-2-.17 | 2001 | Definition and employment of “permitted personnel”: requirement for development of individualized staff development plans for permitted personnel. | Institution and Individual | Employees not meeting minimum requirements of employment are not considered in calculation of funding; annual permits will not be renewed if staff development requirements have not been met. | Funding: BOE; Permit Renewal: PSC |
| PSC | Teacher Certification Rule 505-2-.36 | 2001 | Criteria for accepting college credit; out-of-state staff development not accepted unless presented on a college transcript or converted to Georgia staff development credit. | Individual | College or staff development credit earned not counted toward renewal requirements. | PSC |
| GCPS | Additional SDU requirement; staff development attendance policy | n.d. | District employees must participate in 20 hours of professional growth activities each year; SDU courses or other documented activities, such as conferences and | Individual | Could result in refusal of GCPS to renew contract of employment; GCPS will not grant SDU credit or | GCPS |

| Agency of origin | Regulation | Date | Description, as relates to staff development | Level of impact | Consequences for non-compliance | Enforcement agency |
|------------------|---------------------|------|--|-----------------|--|--------------------|
| | | | workshops, may satisfy the requirement; staff development credit earned for local requirements may be applied to state requirements; staff development attendance policy for granting staff development credit and earning stipends. | | stipends if attendance requirements are not met. | |
| GCPS | Employment Contract | 2001 | Employee required to participate in local school in-service program and other staff development programs designed for professional growth, including those to meet Southern Association Accreditation requirements. | Individual | Could result in refusal of GCPS to validate or renew contract of employment. | GCPS |

Note. BOE = Georgia State Board of Education; GA = Georgia General Assembly; GCPS = Gwinnett County Public School System; PSC = Georgia Professional Standards Commission; SDU = staff development unit.

APPENDIX B
EMPIRICAL STUDIES OF ACTION RESEARCH
AND SELF-DIRECTED STAFF DEVELOPMENT

Table B1

Action Research

| Author(s), date published | Type of research | Participants | Methodology (methods) | Findings in relation to staff/professional development |
|----------------------------------|------------------|---|---|--|
| Auger, W., & Wideman, R., (2000) | Qualitative | 42 preservice teacher candidates who are pursuing individual AR during 13-week teaching internship. | Grounded theory (participant interviews, journaling by participants, observation of group meetings, questionnaire). | Benefits of using AR as reported on questionnaire: opportunity to improve professional practice, freedom to investigate areas of interest, development of networking and collegial support, improvement of personal sense of professionalism and confidence. Additional findings: AR is a powerful means for improving practice by enhancing sense of autonomy, AR provided a framework for integrating and synthesizing information, participants developed an enhanced acuity in observing children, collecting data drew attention to children's learning as a central focus, participants felt better able to develop theories and translate them to practice, AR provided collegial support for professional growth, participants became aware of selves as living contradictions, participants felt better able to personally contribute to educational knowledge. |
| Feldman, A., (1998) | Qualitative | Approximately 60 graduate students (largely practicing teachers, but included other types of | Grounded theory (researcher journaling on observations and class discussions, collection of | In using conversation as a modified form of AR to improve instructional practice, participants found method useful for: learning how to do research, development of communities of practice, |

| Author(s), date published | Type of research | Participants | Methodology (methods) | Findings in relation to staff/professional development |
|---|------------------|---|---|---|
| | | educators) enrolled in a university course conducted in the evening one time a week for 14 weeks. | students' written reports and speeches, audiotaped speeches, participant journaling, audiotaped research group conversations, audiotaped of oral presentations, collected e-mail correspondence with students). | and achieving goals of AR. Participants viewed research groups as an important forum for discussion of issues, but felt whole class discussions allowed for inequity in participation. Research groups were the primary location for generation of knowledge and understanding. Conversation was useful to participants in furthering their own learning, but was largely unused as a tool in their teaching. |
| Poetter, T., McKamey, C., Ritter, C., & Tisdell, P., (1999) | Qualitative | 3 mentor teachers working with preservice intern teachers (coauthors). | Case study (participant interviews, collection of participant research reports, and written researcher reflection on informal discussions and observations). | Mentor-service teacher pairs that engage in individual AR simultaneously gain a "sharing of the minds." Mentor teachers establish worth of disciplined inquiry for examining self in relation to practice for preservice teachers. Shared experience of inquiry transforms the culture around mentors and in-service teachers. A variety of AR styles were employed: self-reflection through journaling, collaborative study, and independent study. Participants grew personally and professionally. |
| Robertson, J., (2000) | Qualitative | Group of school principals in New Zealand, collaborating in pairs as peer coaches. | Grounded theory within context of AR (participant pairs observed and reported behavior and conducted interviews among themselves, | During group AR into a model of professional development for school leaders, three concurrent strands of AR were occurring: development of theory regarding professional development for school leaders, research into individual practices, and development of a critical |

| Author(s), date published | Type of research | Participants | Methodology (methods) | Findings in relation to staff/professional development |
|---|--|--|--|---|
| | | | researcher observation, researcher interviews with participants. | self-awareness. AR model itself became the professional development model. |
| Sardo- Brown, D., (1995) | Qualita- tive | 6 classroom teachers from varying grade levels enrolled in a master's degree program. | Case study (collection of participants' written reports on AR findings, open-ended questionnaire with anonymous responses). | Participant-described benefits of AR: enhanced sense of professionalism, improved relationships with administrators and students, increased sensitivity to affective concerns of students, and sense of connection with material in professional journals. Participant recommen- dations to schools and school districts to help facilitate involvement in AR: provide release time to do research, encourage groups of teachers in same building to do an AR study, permit teacher access to school-wide data, and provide money for research supplies. |
| Vulliamy, G., & Webb, R., (1991) | Qualita- tive and Quantita- tive | 127 teachers enrolled in a master's degree cohort program whose AR was supervised within their school by their head teacher. | Grounded theory (questionnaires with both closed and open-ended questions, in- depth interviews with some participants, informal discussions with head teachers). | Participants reported AR contributed to their personal and professional growth, with an increase in confidence the major contribution. Tensions of conflicting demands from home, work, and AR caused stress for some students. Participants reported feeling an increased value for student views. |

Table B2

Self-Directed Learning

| Author(s), date published | Type of research | Participants | Methodology (methods) | Findings in relation to staff/professional development |
|---------------------------|------------------------------|--|---|--|
| Corabi, J., (1995) | Qualitative | 23 teachers representing core academic disciplines, regular education and special education, in elementary, middle, and high school; all working in the same school district and participating in the district's self-directed professional development program. | Case Study (3 interviews with each participant, either individually or in groups; interviews with participant's principals; documents developed for the program; debriefings; questionnaires; surveys; observational records; self-appraisal records; personal evaluation forms). | Teachers were more motivated when empowered to self-direct learning. They valued principal support and feedback and felt it created a nonthreatening atmosphere for risk taking. Teachers felt that self-directed learning was meaningful as well as valuable to their current assignment, and it provided a foundation for future learning. Additionally, the teachers identified specific skills they acquired during their learning. The teachers saw a need to be prepared for participation in the program. |
| Craft-Tripp, M., (1993) | Qualitative and Quantitative | 20 special education teachers working in the same district who were participating in a self-directed professional development program as a form of evaluation were compared to 20 special education teachers in another district not participating in the | AR and quasi-experimental (interviews with teachers in experimental group and their principals, researcher/project leader log, participant logs, surveys). | Teachers and principals reported the professional development program promoted professionalism among teachers. The program allowed flexibility in goal setting and therefore related directly to job functions. The facilitator was not required to be an expert in the teaching area. Quality of goal setting changed in two ways for the experimental group after participating in the program: goals were more meaningful/relevant and challenging; goals were less clearly stated and measurable. |

| Author(s), date published | Type of research | Participants | Methodology (methods) | Findings in relation to staff/professional development |
|---------------------------------|---------------------|--|---|---|
| | | professional development program. | | |
| Duron, D., (1994) | Qualita- tive | 9 elementary teachers considered average or above average by their principals. | Phenomenology (phenomeno- logical interviews) | Participants considered meaningful staff development primarily a self-directed process, and as such having a voice in their development was essential. Participants expressed: the need to grow, staff development was more meaningful when it addressed a self- diagnosed need, issue of choice was important, and professional development occurred at both concrete and cognitive levels. |
| Jailall, J., (1998) | Qualita- tive | 28 building supervisors or central office administrators from 16 states involved in differentiated supervision programs. | (surveys, semi- structured interviews, collection of written materials provided by school systems). | School systems considered highly or moderately effective in differentiated supervision offered an option for self-directed learning. SDL was reported to be highly or moderately effective in improving teacher performance by 96% of respondents. Effectiveness of SDL was attributed to two factors: option for teachers to pursue individual interests; providing time for planning, training, and piloting increased teacher motivation. |

Note. AR = action research; SDL = self-directed learning.

APPENDIX C
KNOWLES'S SUGGESTED TIMEFRAME AND ACTIVITIES
FOR SELF-DIRECTED LEARNING IN A GROUP

| <u>Session</u> | <u>Activities</u> |
|----------------|--|
| 1 | Orientation, climate setting, and relationship building |
| 2 | Diagnosis of needs for learning and formulating objectives |
| 3 | Designing learning plans |
| 4 | Contract revision and team planning |
| 5 | Team work |
| 6 | Team work |
| 7 | Team work |
| 8 | Presentation of learning experience |

Reproduced from Knowles, M. (1975). *Self-directed learning: A guide for learners and teachers*. Englewood, CA: Cambridge Adult Education.

APPENDIX D
LEARNING PLAN TEMPLATE

Learning Plan

Name _____

Date _____

Position _____

RESPONSIBILITIES

Instruction

Administration

Management/Discipline

Other

IDENTIFYING FOCUS

Area of interest or targeted change/improvement

Reason for interest/concern regarding this area

How does this interest/concern relate to your responsibilities?

DEFINING THE PROBLEM

List the goals you hope to accomplish as a result of developing your knowledge and skills in the focus area. Phrase the outcomes as observable behaviors.

Identify the process(es) you will use to assess pre- and post-project levels of performance, behavior, cognition, etc. Be certain these assessments correlate with the outcomes you hope to achieve as a result of study in the focus area.

Identify indicators of success which demonstrate achievement of study goals.

PLANNING FOR SELF-DIRECTED STUDY

Mode for conducting study

 Self-instruction Cooperative Learning (Group study)

Group members _____

 Team Learning (Group study for core material and self-instruction for corollary info)

Group members _____

 Other _____

What organizational method will you utilize to organize your data and resource?

 3-ring binder or portfolio Spiral notebook/journal Folders/filing system Multimedia Electronic format Other _____

Define the time frame in which you plan to complete the project.

Entire Project:

Project Components:

Pre-project assessment _____

Summary/interpretation of pre-project assessment _____

Research/data gathering _____

Interpretation of research/data gathering _____

Translating new knowledge/skills into plan to meet goals _____

Implementation of plan to meet goals _____

Post-project assessment _____

Summary/interpretation of post-study assessment _____

SELF-DIRECTED STUDY**Research/Data Gathering**

List topics and key words to be utilized in study of your focus area.

Methods you will utilize to gather information about your focus area.

- | | |
|--|---|
| <input type="checkbox"/> magazine and journal articles | <input type="checkbox"/> on-line research |
| <input type="checkbox"/> professional books | <input type="checkbox"/> multimedia (video, tape recording, etc.) |
| <input type="checkbox"/> other professional documents | <input type="checkbox"/> expert sources |
| <input type="checkbox"/> interviews/surveys | <input type="checkbox"/> others' observation of me |
| <input type="checkbox"/> observation of others | |
| <input type="checkbox"/> other _____ | |

In gathering information about my focus area, I may need help with:

Pre-project Assessment

List results of pre-study assessment.

Summary/Interpretation of Pre-project Assessment

Summarize the implications of pre-study assessment.

Did the results of the pre-study assessment validate or alter the focus of your interest or concern? Briefly explain.

Is it necessary to refine your area of interest or concern. If yes, how will you modify your project?

Interpretation of Research/Data Gathering

Summarize the most significant findings of your research/data gathering as they relate to your focus area. (What important points do the data reveal? What patterns or trends are noted? How do data from various sources compare and contrast? Do any correlations seem important?)

Discuss your inferences/feelings/opinions regarding the data you have gathered. (Are the results different from what you expected? Did the data validate or alter your focus area? How did the data impact your cognition regarding the focus area?)

Translating New Knowledge/Skills into Plan to Meet Goals

Discuss the implications of your research/data gathering as they relate to your goal. (What must you consider as you design a plan for meeting your goal and addressing your responsibilities?)

Identify actions most likely to contribute to goal attainment. (Focus on one to three strategies, innovations or changes.)

For each action listed above, describe how a successful outcome will look.

Describe in detail how you will assess the success of each action. Be certain that the assessment and action are compatible, and that both directly relate to your focus area. When appropriate, include copies of any surveys, interview questions, or other assessments. If applicable, provide a description of statistics you will collect, and explain how these can indicate success.

For each action, list steps required for implementation and provide a timeframe for implementing each step. If the timeframe for a step may vary, indicate the criteria that will be utilized to mark conclusion of the step.

List materials, supplies, or personnel required to your implement your action plan.

Implementation of Plan to Meet Goals

List the actions taken and their accompanying steps. For each step, note comments, results or other pertinent information relating to the implementation of your action plan. Include any deviations from the plan and reasons for the change.

List your response/opinion/feelings regarding the action plan(s). Did the process occur as you had envisioned it? Why or why not? What information did you gain? Are there steps you would do eliminate, add or alter?

Post-project Assessment

Discuss the design your post-project assessment. Did you utilize the method you originally planned? If not, why did you select a different measure, and how does it compare to the pre-project assessment you conducted?

Describe the results of your post-project assessment, focusing on outcomes you had hoped to achieve and indicators of success identified at the onset of your project.

Summary/Interpretation of Post-project Assessment

Based upon the results of your post-study assessment, did you encounter the outcomes you hoped to achieve as a result of study in the focus area? Explain.

Describe progress in relation to indicators of success identified at the onset of the study. What degree of progress was made in relation to these indicators? After concluding your development in the focus area, do you feel the indicators identified are appropriate measures of success?

Discuss the implications of your results.

As a result of your development in the focus area, what further interest areas, questions, or growth opportunities have you identified?

Summarize the impact of development in the focus area on your ability to carry out your responsibilities.

This learning plan is based upon processes described by Emily Calhoun and Malcolm Knowles. Reflection has been integrated into the plan as suggested by the research of Graham Vulliamy, Rosemary Webb, and Jan Robertson. The concept of a “learning project” is taken from the work of Allen Tough.

- Calhoun, E. F. (1994). *How to Use Action Research in the Self-Renewing School*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Knowles, M. (1975). *Self-directed learning: A guide for learners and teachers*. Englewood, CA: Cambridge Adult Education.
- Robertson, J. (2000). The three r's of action research methodology: Reciprocity, reflexivity and reflection-on-reality. *Educational Action Research*, 8, 307-325.
- Tough, A. (1971, 1979). *The adult learning projects*. Ontario, Canada: Ontario Institute for Studies in Education.
- Vulliamy, G., and Webb, R. (1991). Teacher research and education change: An empirical study. *British Educational Research Journal*, 17, 219-237.

APPENDIX E
PARTICIPANTS' RESOURCE NOTEBOOK

SELF-DIRECTED STAFF DEVELOPMENT
BASED ON ACTION RESEARCH

Facilitator: Vicki Husby

**SELF-DIRECTED STAFF DEVELOPMENT
BASED ON ACTION RESEARCH**

| <u>Session</u> | <u>Activities</u> |
|----------------|---|
| 1 | <ol style="list-style-type: none"> 1. Introductions, climate setting 2. Discuss research and consent forms. Sign consent forms. 3. Administer Self-Directed Learning Readiness Scale. 4. In small groups, discuss: job duties, school goals, interest or growth areas. Write responses on chart paper to be shared with the group. 5. Share group responses. 6. Individual work time: In participant's notebook, each learner will complete the RESPONSIBILITIES section of the learning plan (p. 1). In relation to those duties, learners will complete the Worksheet for Stating Learning Objectives (Knowles, 1975, p. 98). 7. Facilitator: Briefly share background, concept and structure of self-directed learning and action research. Goal of staff development is to prepare participants to participate in both action research and self-directed learning independently of the facilitator. Course will be divided into two components: developing knowledge and skill as critical learners, and systematically applying knowledge and skill in a self-directed learning project. 8. Reflect in a written journal entry on thoughts/perceptions about the staff development experience. |

Assignment for next session: Select a learning goal and think about how to achieve it. Bring materials for work time.

| | |
|---|--|
| 2 | <ol style="list-style-type: none"> 1. In small groups, discuss learning goal and how it might be achieved. 2. Briefly, individuals share their goals with the whole group. 3. Individual work time: In participant's notebook, work on learning plan. Complete IDENTIFYING FOCUS, DEFINING THE PROBLEM, PLANNING FOR SELF-DIRECTED STUDY, and the Research/Data Gathering section of SELF-DIRECTED STUDY (p. 2-5). Work on project for remainder of time. 4. Facilitator: Share and explain template for evaluating written material. 5. Reflect in a written journal entry on thoughts/perceptions about the staff development experience. |
|---|--|

Assignment for next session: Determine baseline levels of knowledge/skill/performance you wish to change (pre-project assessment). Bring materials for work time.

| | |
|---|--|
| 3 | <ol style="list-style-type: none"> 1. In whole group, discuss concerns, comments, pre-project assessment, |
|---|--|

status.

2. Arrange in project groups according to similar learning projects.
These groups will remain intact for the remainder of sessions.
Groups are to serve as critical friends in meeting project goal. In small groups, discuss pre-project assessment and its implications. In the participant's notebook, work on learning plan. Complete the Pre-project Assessment and Summary/Interpretation of Pre-project Assessment sections of SELF-DIRECTED STUDY (p. 6).
3. Facilitator: Present lesson on critically evaluating information.
 - a. What kind of information is it? Who is presenting it?
 - b. If it is research, what kind is it?
 - c. If not research, is it based upon research? If not, what makes you comfortable you can trust the information?
4. Facilitator: Demonstrate how to use an on-line database for locating information.
5. Individual work time: Work on project.
6. Reflect in a written journal entry on thoughts/perceptions about the staff development experience.

Assignment for next session: Bring materials for work time.

- 4
 1. With the whole group, briefly share progress.
 2. In project group, discuss progress and concerns in more detail.
 3. Facilitator: Present basic terminology of quantitative and qualitative research.
 4. Individual work time: Work on project.
 5. Reflect in a written journal entry on thoughts/perceptions about the staff development experience.

Assignment for next time: Think about how you will translate what you are learning to a plan of action. Bring materials for work time.

- 5
 1. In project group, discuss implications of learning to date and how they relate to goal.
 2. Facilitator: How will new knowledge be transferred to an action plan?
 - a. What actions are most likely to contribute to goal attainment? (Select 1-3 actions.)
 - b. For each action, how will a successful outcome look?
 - c. How will success of each action be assessed?
 - d. List steps and timeframe for implementing each action.
 - e. What materials, supplies, or personnel are required to implement the action plan?
 3. In participant's notebook, work on learning plan. Complete Interpretation of Research/Data Gathering and Translating

New Knowledge/Skills into Plan to Meet Goals sections of SELF-DIRECTED LEARNING (p. 7-9).

4. Individual Work Time: Work on projects.
5. Reflect in a written journal entry on thoughts/perceptions about the staff development experience.

Assignment for next session: Think about how you might/try to implement your action plan over the next few weeks. Bring materials to work.

- 6
 1. In project group, discuss action plans and concerns.
 2. In large group, briefly share action plans and present concerns to group.
 3. Facilitator: Solicit brainstorming and discuss types of things to observe in classroom—related to implementing action plan, as a variety of variables might have an impact on effectiveness. (Ex: traffic flow, behavioral patterns, student affect, ability levels, etc.)
 4. Individual Work Time: Work on project.
 5. Reflect in a written journal entry on thoughts/perceptions about the staff development experience.

Assignment for next session: As you reflect upon/implement your action plan, are there any modifications you may need to make to the original plan? Bring materials to work on individual project.

- 7
 1. In project group, discuss progress, concerns, and any modifications to original action plan.
 2. In large group, briefly share progress, concerns, and modifications to action plan.
 3. Facilitator: Discuss reflecting on actions taken and results of action. The key point is that learning is a dynamic process which calls for alteration of behavior as new information is gained.
 4. In participant's notebook, work on learning plan. Complete the Implementation of Plan to Meet Goals section of SELF-DIRECTED LEARNING (p. 10).
 5. Individual Work Time: Work on project.
 6. Reflect in a written journal entry on thoughts/perceptions about the staff development experience.

Assignment for next session: Be ready to do a 5-10 minute presentation to the whole group on your project.

- 8
 1. In participant's notebook, work on learning plan. Complete the Post-project Assessment and Summary/Interpretation of Post-project Assessment sections of SELF-DIRECTED LEARNING (p. 11-12).

2. Organize thoughts, materials for 5-10 minute presentation. Discuss presentation plan with project group for last minute suggestions.
3. Present projects to whole group.
4. Facilitator: Administer the Self-Directed Learning Readiness Scale.
5. Reflect in a written journal entry on thoughts/perceptions about the staff development experience.

LEARNING PLAN

Learning Plan

Name _____

Date _____

Position _____

RESPONSIBILITIES

Instruction

Administration

Management/Discipline

Other

IDENTIFYING FOCUS

Area of interest or targeted change/improvement

Reason for interest/concern regarding this area

How does this interest/concern relate to your responsibilities?

DEFINING THE PROBLEM

List the goals you hope to accomplish as a result of developing your knowledge and skills in the focus area. Phrase the outcomes as observable behaviors.

Identify the process(es) you will use to assess pre- and post-project levels of performance, behavior, cognition, etc. Be certain these assessments correlate with the outcomes you hope to achieve as a result of study in the focus area.

Identify indicators of success which demonstrate achievement of study goals.

PLANNING FOR SELF-DIRECTED STUDY

Mode for conducting study

Self-instruction

Cooperative Learning (Group study)

Group members _____

Team Learning (Group study for core material and self-instruction for corollary info)

Group members _____

Other _____

What organizational method will you utilize to organize your data and resource?

3-ring binder or portfolio

Spiral notebook/journal

Folders/filing system

Multimedia

Electronic format

Other _____

Define the time frame in which you plan to complete the project.

Entire Project:

Project Components:

Pre-project assessment _____

Summary/interpretation of pre-project assessment _____

Research/data gathering _____

Interpretation of research/data gathering _____

Translating new knowledge/skills into plan to meet goals _____

Implementation of plan to meet goals _____

Post-project assessment _____

Summary/interpretation of post-study assessment _____

SELF-DIRECTED STUDY**Research/Data Gathering**

List topics and key words to be utilized in study of your focus area.

Methods you will utilize to gather information about your focus area.

- | | |
|--|---|
| <input type="checkbox"/> magazine and journal articles | <input type="checkbox"/> on-line research |
| <input type="checkbox"/> professional books | <input type="checkbox"/> multimedia (video, tape recording, etc.) |
| <input type="checkbox"/> other professional documents | <input type="checkbox"/> expert sources |
| <input type="checkbox"/> interviews/surveys | <input type="checkbox"/> others' observation of me |
| <input type="checkbox"/> observation of others | |
| <input type="checkbox"/> other _____ | |

In gathering information about my focus area, I may need help with:

Pre-project Assessment

List results of pre-study assessment.

Summary/Interpretation of Pre-project Assessment

Summarize the implications of pre-study assessment.

Did the results of the pre-study assessment validate or alter the focus of your interest or concern? Briefly explain.

Is it necessary to refine your area of interest or concern. If yes, how will you modify your project?

Interpretation of Research/Data Gathering

Summarize the most significant findings of your research/data gathering as they relate to your focus area. (What important points do the data reveal? What patterns or trends are noted? How do data from various sources compare and contrast? Do any correlations seem important?)

Discuss your inferences/feelings/opinions regarding the data you have gathered. (Are the results different from what you expected? Did the data validate or alter your focus area? How did the data impact your cognition regarding the focus area?)

Translating New Knowledge/Skills into Plan to Meet Goals

Discuss the implications of your research/data gathering as they relate to your goal. (What must you consider as you design a plan for meeting your goal and addressing your responsibilities?)

Identify actions most likely to contribute to goal attainment. (Focus on one to three strategies, innovations or changes.)

For each action listed above, describe how a successful outcome will look.

Describe in detail how you will assess the success of each action. Be certain that the assessment and action are compatible, and that both directly relate to your focus area. When appropriate, include copies of any surveys, interview questions, or other assessments. If applicable, provide a description of statistics you will collect, and explain how these can indicate success.

For each action, list steps required for implementation and provide a timeframe for implementing each step. If the timeframe for a step may vary, indicate the criteria that will be utilized to mark conclusion of the step.

List materials, supplies, or personnel required to your implement your action plan.

Implementation of Plan to Meet Goals

List the actions taken and their accompanying steps. For each step, note comments, results or other pertinent information relating to the implementation of your action plan. Include any deviations from the plan and reasons for the change.

List your response/opinion/feelings regarding the action plan(s). Did the process occur as you had envisioned it? Why or why not? What information did you gain? Are there steps you would do eliminate, add or alter?

Post-project Assessment

Discuss the design your post-project assessment. Did you utilize the method you originally planned? If not, why did you select a different measure, and how does it compare to the pre-project assessment you conducted?

Describe the results of your post-project assessment, focusing on outcomes you had hoped to achieve and indicators of success identified at the onset of your project.

Summary/Interpretation of Post-project Assessment

Based upon the results of your post-study assessment, did you encounter the outcomes you hoped to achieve as a result of study in the focus area? Explain.

Describe progress in relation to indicators of success identified at the onset of the study. What degree of progress was made in relation to these indicators? After concluding your development in the focus area, do you feel the indicators identified are appropriate measures of success?

Discuss the implications of your results.

As a result of your development in the focus area, what further interest areas, questions, or growth opportunities have you identified?

Summarize the impact of development in the focus area on your ability to carry out your responsibilities.

This learning plan is based upon processes described by Emily Calhoun and Malcolm Knowles. Reflection has been integrated into the plan as suggested by the research of Graham Vulliamy, Rosemary Webb, and Jan Robertson. The concept of a “learning project” is taken from the work of Allen Tough.

- Calhoun, E. F. (1994). *How to Use Action Research in the Self-Renewing School*. Alexandria, VA: Association for Supervision and Curriculum Development.
- Knowles, M. (1975). *Self-directed learning: A guide for learners and teachers*. Englewood, CA: Cambridge Adult Education.
- Robertson, J. (2000). The three r’s of action research methodology: Reciprocity, reflexivity and reflection-on-reality. *Educational Action Research*, 8, 307-325.
- Tough, A. (1971, 1979). *The adult learning projects*. Ontario, Canada: Ontario Institute for Studies in Education.
- Vulliamy, G., and Webb, R. (1991). Teacher research and education change: An empirical study. *British Educational Research Journal*, 17, 219-237.

SESSION 1

Session**Activities**

1

1. Introductions, climate setting
2. Discuss research and consent forms. Sign consent forms.
3. Administer Self-Directed Learning Readiness Scale.
4. In small groups, discuss: job duties, school goals, interest or growth areas. Write responses on chart paper to be shared with the group.
5. Share group responses.
6. Individual work time: In participant's notebook, each learner will complete the RESPONSIBILITIES section of the learning plan (p. 1). In relation to those duties, learners will complete the Worksheet for Stating Learning Objectives (Knowles, 1975, p. 98).
7. Facilitator: Briefly share background, concept and structure of self-directed learning and action research. Goal of staff development is to prepare participants to participate in both action research and self-directed learning independently of the facilitator. Course will be divided into two components: developing knowledge and skill as critical learners, and systematically applying knowledge and skill in a self-directed learning project.
8. Reflect in a written journal entry on thoughts/perceptions about the staff development experience.

Assignment for next session: Select a learning goal and think about how to achieve it. Bring materials for work time.

Researcher Copy

February 1, 2001

Dear Participant,

You are invited to participate in a research project entitled “Teachers’ Experiences with a Self-Directed Staff Development Program Based upon Action Research,” conducted by Vicki Husby from the Department of Educational Leadership at the University of Georgia. For this project I will be studying your experiences with the staff development program, Self-Directed Learning Projects.

The purpose of this research project is to study your experience as a teacher participating in a staff development program based upon self-directed learning and action research. I hope that such a study will inform development of staff development programs that meet your needs as an adult learner, while also meeting system and state level requirements for awarding staff development units for participation in the program.

For this project I will be collecting data in the form of face-to face interviews, journal reflections on the staff development program in which you are participating, observations of the staff development program in which you are participating, written documents you produce in the course, and an assessment of self-directed learning completed by you. This data will be collected as part of my doctoral dissertation under the supervision of Dr. Jo Blase at the University of Georgia. This will entail, on your part, participating in face-to-face interviews, composing weekly reflections on your experience in the staff development program, agreeing to allow me to observe you as you participate in the staff development program, providing artifacts relating to your staff development experiences, and completing a pre and post-assessment of self-directed learning. With your permission, I will audiotape the interviews and submit them to a professional transcriber, so that I may have a written copy of your responses. These tapes subsequently will be stored in my home and destroyed when use of them is deemed complete.

No discomforts or stresses are expected for participants in this study. Likewise, I anticipate no risks for participants. All information collected during the study will be treated confidentially (unless required by law), and any publications from the project will use pseudonyms. There is a possibility that audiotapes with your voice could be used in either teaching or conference presentations. This would, of course, be subject to your permission.

You are free to withdraw your participation at any time should you become uncomfortable. Should you wish to read my reports from this study, please let me know. If you have any questions or concerns, feel free to call me at home at 770-995-6297. I hope you will enjoy this opportunity to share your experiences with others.

Thank you very much for your assistance!

Vicki Husby, Researcher

I understand the procedures described above. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

Signature of Participant

Date

Signature of Researcher

Date

Would you please indicate below, by signing your initials, what uses of records and audio recordings that you agree to.

1. Records can be used for academic publications.

Written _____ Audio _____

2. Records can be used at meetings of researchers.

Written _____ Audio _____

3. Records can be used in classrooms with students.

Written _____ Audio _____

I have read the above description and give my consent for the use of the records as indicated above. I understand the cassette tapes will be stored in the researcher's home and will be destroyed when use of them has been deemed complete.

Signature of Participant

Date

The Institutional Review Board oversees any research-type activity conducted at the University of Georgia that involves human participants. Questions or problems regarding your rights as a participant should be addressed to Christina Joseph, Institutional Review Board, Office of the Vice President for Research, 606 Boyd Graduate Studies Research

Center, The University of Georgia, Athens, Georgia 30602-7411. Telephone: 706-542-6514; Email: IRB@uga.edu

Participant Copy

February 1, 2001

Dear Participant,

You are invited to participate in a research project entitled “Teachers’ Experiences with a Self-Directed Staff Development Program Based upon Action Research,” conducted by Vicki Husby from the Department of Educational Leadership at the University of Georgia. For this project I will be studying your experiences with the staff development program, Self-Directed Learning Projects.

The purpose of this research project is to study your experience as a teacher participating in a staff development program based upon self-directed learning and action research. I hope that such a study will inform development of staff development programs that meet your needs as an adult learner, while also meeting system and state level requirements for awarding staff development units for participation in the program.

For this project I will be collecting data in the form of face-to face interviews, journal reflections on the staff development program in which you are participating, observations of the staff development program in which you are participating, written documents you produce in the course, and an assessment of self-directed learning completed by you. This data will be collected as part of my doctoral dissertation under the supervision of Dr. Jo Blase at the University of Georgia. This will entail, on your part, participating in face-to-face interviews, composing weekly reflections on your experience in the staff development program, agreeing to allow me to observe you as you participate in the staff development program, providing artifacts relating to your staff development experiences, and completing a pre and post-assessment of self-directed learning. With your permission, I will audiotape the interviews and submit them to a professional transcriber, so that I may have a written copy of your responses. These tapes subsequently will be stored in my home and destroyed when use of them is deemed complete.

No discomforts or stresses are expected for participants in this study. Likewise, I anticipate no risks for participants. All information collected during the study will be treated confidentially (unless required by law), and any publications from the project will use pseudonyms. There is a possibility that audiotapes with your voice could be used in either teaching or conference presentations. This would, of course, be subject to your permission.

You are free to withdraw your participation at any time should you become uncomfortable. Should you wish to read my reports from this study, please let me know. If you have any questions or concerns, feel free to call me at home at 770-995-6297. I hope you will enjoy this opportunity to share your experiences with others.

Thank you very much for your assistance!

Vicki Husby, Researcher

I understand the procedures described above. My questions have been answered to my satisfaction, and I agree to participate in this study. I have been given a copy of this form.

Signature of Participant

Date

Signature of Researcher

Date

Would you please indicate below, by signing your initials, what uses of records and audio recordings that you agree to.

1. Records can be used for academic publications.

Written _____ Audio _____

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Center, The University of Georgia, Athens, Georgia 30602-7411. Telephone: 706-542-6514; Email: IRB@uga.edu

WORKSHEET FOR STATING LEARNING OBJECTIVES

| Behavioral Aspect | Content Area |
|--|--|
| To develop <i>knowledge</i> about: | 1. 2. 3. 4. 5. 6. 7. |
| To develop <i>understanding</i> of: | 1. 2. 3. 4. 5. 6. 7. |
| To develop <i>skill</i> in: | 1. 2. 3. 4. 5. 6. 7. |
| To develop attitudes toward: | 1. 2. 3. 4. 5. 6. 7. |
| To develop <i>values</i> of : | 1. 2. 3. 4. 5. 6. 7. |

This is a reproduction from Knowles, M. (1975). *Self-directed learning: A guide for learners and teachers*. Englewood, CA: Cambridge Adult Education.

OVERVIEW OF SELF-DIRECTED LEARNING AND ACTION RESEARCH

Action research as described by Calhoun (1994) and self-directed learning as advocated by Knowles (1998) share several common characteristics. Both draw on the benefits of addressing learning within a group, while permitting individualized pursuits. Each provides adults an opportunity to pursue learning consistent with their specific needs and interests. Each is problem or life-based, an important need for adults in learning. Unlike pure self-directed learning, though, action research inherently provides for evaluation of learning. Conversely, unlike action research, self-directed learning provides for development through methods other than research.

Action Research

Action research is the investigation, by educators, into the effectiveness of instructional practices and programs within their school (Calhoun, 1994). The process of inquiry includes five basic phases: 1) identification of an interest area or problem; 2) collection of baseline data; 3) organization of data; 4) interpretation of data as related to interest area or problem; and 5) implementation of action plan in response to data. This framework for improvement is cyclical; based on data and outcomes, subsequent interest or problem areas are identified, then the process repeats. Whether conducted by individual teachers or groups of colleagues, Calhoun notes the benefit of action research to be the potential for individuals to develop a professional mindset and improve their performance by becoming adept problem solvers.

Self-Directed Learning

According to Eduard Lindeman, a pioneer in adult learning theory, “Every adult person finds himself in specific situations . . . which call for adjustments. Adult education begins and ends at this point,” (Lindeman, 1926, p. 6). He added that subject matter is brought to the situation, and the curriculum is built around the adult learner’s needs and interests. Malcolm Knowles, known as the “Father of Andragogy” (Knowles, Holton, & Swanson, 1998), noted that each adult learner’s needs and situation differ, and therefore adults are best served when the learning is adapted to their “uniqueness” and situational needs. He proposed self-directed learning as the context in which to meet the needs of adult learners.

According to Knowles’s Five Principles of Adult Learning, adults prefer situational learning that relates directly to their needs and interests (Knowles, Holton, & Swanson, 1998). Instruction should be life-centered and experiential, while providing for differences in individual’s optimal learning conditions. In addition, adult learners become more self-directed over time, and they desire to apply rather quickly what they have learned. According to Candy (1991), self-directed learning is characterized as the moral, emotional, and intellectual autonomy of the learner. He adds that the learner is self-managing in that they accept responsibility for the management of learning.

Proposed Research

The study proposed by this researcher is that of exploring the experiences of teachers engaged in a school level, credit-bearing staff development program that combines the frameworks of action research and self-directed learning. Self-directed learning in a group situation as suggested by Knowles (1975) and the action research process defined by Calhoun (1994) are being combined and implemented in an 8-week staff development program. In the program, participants design, implement, and evaluate learning projects focused on improvement of job-related knowledge and skills.

Journal Response

Reflect in a written journal entry at least three thoughts in order to explain your beliefs, actions, experience with the staff development program. Please provide specific examples to illustrate your points.

SESSION 2

| <u>Session</u> | <u>Activities</u> |
|----------------|---|
| 2 | <ol style="list-style-type: none">1. In small groups, discuss learning goal and how it might be achieved.2. Briefly, individuals share their goals with the whole group.3. Individual work time: In participant's notebook, work on learning plan. Complete IDENTIFYING FOCUS, DEFINING THE PROBLEM, PLANNING FOR SELF-DIRECTED STUDY, and the Research/Data Gathering section of SELF-DIRECTED STUDY (p. 2-5). Work on project for remainder of time.4. Facilitator: Share and explain template for evaluating written material.5. Reflect in a written journal entry on thoughts/perceptions about the staff development experience. <p>Assignment for next session: Determine baseline levels of knowledge/skill/performance you wish to change (pre-project assessment). Bring materials for work time.</p> |

EVALUATING WRITTEN MATERIAL

TITLE:

AUTHOR:

SOURCE:

DATE / VOLUME / ISSUE:

TYPE: Research-quantitative Research-qualitative
 Not Research
 Book Journal Article Newspaper Article
 Web Info. Other_____

Topic:

Summary:

Implications for Project:

TYPES OF WRITTEN MATERIAL

RESEARCH - QUANTITATIVE

Quantitative research deals with numbers and statistics. With these studies, terms such as "significance", "correlation", "variables", "control group", and "conditions" are used in reporting results. Quantitative research deals with any number of topics.

MacMillan, R. (1999). Influences of workplace conditions on teachers' job satisfaction. Journal of Educational Research, 93, 39-47.

RESEARCH - QUALITATIVE

Qualitative research deals with exploring the lived experiences of human beings. Generally, these studies explore those experiences in detail. Terms such as "coding", "theme", "subjectivity", and "member check" are used in qualitative studies.

Blase, J., & Blase, J.R. (1994). Empowering teachers: What successful principals do. Thousand Oaks, CA: Corwin Press, Inc.

NON-RESEARCH

Non-research includes anything that is not a study. Often these materials are informative, but they do not provide the proof of a study to support conclusions made. In some cases, articles and books may be based on research, but they are not classified as research themselves.

Jensen, E. (1996). Brain-based learning. Del Mar, CA: Turning Point Publishing.

BOOK

This is self-explanatory! Try to discern integrity of the info published.

JOURNAL ARTICLE

Journals are serial publications that are published on a regular basis. Articles published in a journal usually fall under a particular theme; for example, Educational Leadership focuses on topics of general interest to school leaders. Some journals require a peer review before articles are accepted for publication. These journals are

generally considered to be of a higher caliber. Educational journals basically publish within one of the following categories: research, general interest, or practice-oriented. A particular volume of a journal may be bound in book format, but the works are still considered journal articles and not a book.

Sherin, M. (2000). Viewing teaching on videotape. Educational Leadership, 57, 36-38.

NEWSPAPER ARTICLE

This is self-explanatory. Try to discern integrity of the info published.

WEB INFO.

This consists of any information published on the internet. Some journal articles are published on-line. They are still considered journal articles. When relying on information published on the web, try to ensure that the information is reliable and delivered by a trustworthy source.

Nunley, K. (2000, April). Keeping pace with today's quick brains. Brains.org [On-line serial]. Available: www.brains.org

Journal Response

Reflect in a written journal entry at least three thoughts in order to explain your beliefs, actions, experience with the staff development program. Please provide specific examples to illustrate your points.

SESSION 3

Session**Activities**

- 3
1. In whole group, discuss concerns, comments, pre-project assessment, status.
 2. Arrange in project groups according to similar learning projects.
 These groups will remain intact for the remainder of sessions.
 Groups are to serve as critical friends in meeting project goal. In small groups, discuss pre-project assessment and its implications. In the participant's notebook, work on learning plan. Complete the Pre-project Assessment and Summary/Interpretation of Pre-project Assessment sections of SELF-DIRECTED STUDY (p. 6).
 3. Facilitator: Present lesson on critically evaluating information using materials presented during session 2.
 - d. What kind of information is it? Who is presenting it?
 - e. If it is research, what kind is it?
 - f. If not research, is it based upon research? If not, what makes you comfortable you can trust the information?
 4. Facilitator: Demonstrate how to use an on-line database for locating information.
 5. Individual work time: Work on project.
 6. Reflect in a written journal entry on thoughts/perceptions about the staff development experience.

Assignment for next session: Bring materials for work time.

Journal Response

Reflect in a written journal entry at least three thoughts in order to explain your beliefs, actions, experience with the staff development program. Please provide specific examples to illustrate your points.

SESSION 4

Session**Activities**

4

1. With the whole group, briefly share progress.
2. In project group, discuss progress and concerns in more detail.
3. Facilitator: Present basic terminology of quantitative and qualitative research.
4. Individual work time: Work on project.
5. Reflect in a written journal entry on thoughts/perceptions about the staff development experience.

Assignment for next time: Think about how you will translate what you are learning to a plan of action. Bring materials for work time.

QUANTITATIVE RESEARCH TERMINOLOGY

Quantitative research is concerned with the testing of hypotheses, and results are reported in terms of statistics.

COMPARISON - Compares groups

RELATIONSHIP/CORRELATION - Refers to relationships between variables. A positive, or direct, relationship indicates the group under study changes in the same manner as the item against which it is being compared. A negative, or inverse, relationship indicates the group under study changes, but in an inverse manner, as the item against which it is compared changes.

VARIABLES - Components of the study which are isolated as the foci. The dependent variable is manipulated, while the independent variable remains constant.

INTERVENTION- A change that is applied to the research situation and subsequently studied.

HYPOTHESIS - Researcher's predicted finding of the study; is testable by manipulating variables.

NULL HYPOTHESIS - When the intervention or research indicates no difference or relationship.

STANDARD DEVIATION - The typical distance scores are from the mean.

VARIANCE - The average amount scores vary from the mean.

PROBABILITY - The degree of likelihood statistical data resulting from research is accurate.

SIGNIFICANCE - Statistical significance indicates the degree of relationship or result of intervention is greater than what would be expected to naturally occur.

TYPICAL DATA: Mean, median, mode, ratios, correlation, standard deviation, variance, probability, significance

Adapted from: Schnitjer, K. (1994). Overlays for ers 611: Applied descriptive statistics. Athens,GA: University of Georgia.

QUALITATIVE RESEARCH TERMINOLOGY

Qualitative research is concerned with understanding human behaviors, beliefs, and perceptions, and most often it is reported in a narrative format.

METHODS - Procedures used to gather and analyze data.

METHODOLOGY - Plan of action, design, or process behind the choice and use of particular methods.

THEORETICAL PERSPECTIVE - Philosophy behind the methodology.

EPISTEMOLOGY - The larger theory from which the philosophy, or theoretical perspective, is derived.

ETHNOGRAPHY - Study of a person or persons from within their environment.

CASE STUDY - Study of a particular case, or individual.

PHENOMENOLOGY - Study of the structure of a particular phenomena, such as an anger episode.

GROUNDING THEORY - Discovery and development of theory, rather than approaching research from a prior theoretical framework, such as feminism.

SUBJECTIVITIES - The experiences, beliefs, and perceptions a researcher brings to a study.

TYPICAL DATA: Interviews, participant narrative accounts, observation and field notes, journal responses, archives

Adapted from: Roulston, K. (2001). Handouts for ersh 7400: Qualitative research traditions. Athens, GA: University of Georgia.

Journal Entry

(Prompt to be determined.)

SESSION 5

Session**Activities**

- 5
1. In project group, discuss implications of learning to date and how they relate to goal.
 2. Facilitator: How will new knowledge be transferred to an action plan?
 - f. What actions are most likely to contribute to goal attainment? (Select 1-3 actions.)
 - g. For each action, how will a successful outcome look?
 - h. How will success of each action be assessed?
 - i. List steps and timeframe for implementing each action.
 - j. What materials, supplies, or personnel are required to implement the action plan?
 3. In participant's notebook, work on learning plan. Complete Interpretation of Research/Data Gathering and Translating New Knowledge/Skills into Plan to Meet Goals sections of SELF-DIRECTED LEARNING (p. 7-9).
 4. Individual Work Time: Work on projects.
 5. Reflect in a written journal entry on thoughts/perceptions about the staff development experience.

Assignment for next session: Think about how you might/try to implement your action plan over the next few weeks. Bring materials to work.

Journal Response

(Prompt to be determined.)

SESSION 6

Session**Activities**

6

1. In project group, discuss action plans and concerns.
2. In large group, briefly share action plans and present concerns to group.
3. Facilitator: Facilitate and discuss types of things to observe in classroom – related to implementing action plan, as a variety of variables might have an impact on effectiveness. (Ex: traffic flow, behavioral patterns, student affect, ability levels, etc..)
4. Individual Work Time: Work on project.
5. Reflect in a written journal entry on thoughts/perceptions about the staff development experience.

Assignment for next session: As you reflect upon/implement your action plan, are there any modifications you may need to make to the original plan? Bring materials to work on individual project.

Journal Response

(Prompt to be determined.)

SESSION 7

Session**Activities**

7

1. In project group, discuss progress, concerns, and any modifications to original action plan.
2. In large group, briefly share progress, concerns, and modifications to action plan.
3. Facilitator: Discuss reflecting on actions taken and results of action.
The key point is that learning is a dynamic process which calls for alteration of behavior as new information is gained.
4. In participant's notebook, work on learning plan. Complete the Implementation of Plan to Meet Goals section of SELF-DIRECTED LEARNING (p. 10).
5. Individual Work Time: Work on project.
6. Reflect in a written journal entry on thoughts/perceptions about the staff development experience.

Assignment for next session: Be ready to do a 5-10 minute presentation to the whole group on your project.

Journal Response

(Prompt to be determined.)

SESSION 8

| <u>Session</u> | <u>Activities</u> |
|----------------|---|
| 8 | <ol style="list-style-type: none">1. In participant's notebook, work on learning plan. Complete the Post-project Assessment and Summary/Interpretation of Post-project Assessment sections of SELF-DIRECTED LEARNING (p. 11-12).2. Organize thoughts, materials for 5-10 minute presentation. Discuss presentation plan with project group for last minute suggestions.3. Present projects to whole group.4. Facilitator: Administer the Self-Directed Learning Readiness Scale.5. Reflect in a written journal entry on thoughts/perceptions about the staff development experience. |

Journal Response

(Prompt to be determined.)

APPENDIX F
CHRONOLOGICAL AUDIT TRAIL OF CONCEPT
AND CATEGORY DEVELOPMENT

| Date/session reference | Code notes | Category notes |
|------------------------|--|--|
| After 1 | <p>“Response to group members”—2 participants noted enjoyment of others</p> <p>“Use of info”—in vivo code</p> <p>“Comparison to other staff development”—noted by 2 participants</p> <p>“Facilitator”—references to her</p> <p>“Staff development Program”—general term to represent comments about program in study</p> <p>“Do right”—in vivo code</p> <p>“Self-perception”—term to represent teacher comments about themselves</p> <p>“Evidence of climate setting”—term from Knowles to represent rapport among participants</p> <p>“Relating own learning to role”—in vivo code</p> <p>“Relating professional research”—in vivo code</p> | <p>Learning experience (use of info, comparison to other staff development, relating own learning to role, relating professional research, staff development program).</p> <p>Social experience (responses to group members, facilitator—all facets, do right, evidence of climate setting).</p> <p>Learning experience and social experience are interrelated somehow.</p> <p>Intrapersonal experience (self-perception).</p> |
| After 2 | <p>“Own experiences”—in vivo code</p> <p>“Content/method learned”—term to relate how and what learned</p> <p>“Feelings about learning”—in vivo code</p> <p>Distinguish between clarification and “do right”</p> <p>“Researcher response to members”—term to denote researcher behavior in response to group”</p> <p>“Self-perception”— Question: how is ‘self’ manifested?</p> | |

| Date/session reference | Code notes | Category notes |
|------------------------|--|---|
| | <p>“Learning plan” –term to represent questions about learning plan</p> <p>“Learning in general” –term to represent participants’ dialogue about various learning related items</p> <p>“Response to learning” –term to represent participants’ responses to what they learned</p> <p>“Do right” –Question: are there different levels of manifestation? (e.g., with regard to facilitator, own actions in group, actions of group, etc.)</p> | |
| After 3 | <p>“Response to group members” – break into different categories (e.g., defined response, collaboration, etc.)</p> <p>“Reason for learning” –break into several properties (can look at history before coming to program; can also look at specific reasons learning specific things)</p> <p>“Project” – term to represent participant discussion of their projects</p> <p>There are subtleties among all codes; will need to distinguish between them through further, more detailed analysis</p> | <p>Teachers do not separate self from total experience when describing experience in staff development program</p> <p>All participants describe project/job in detail without prompt in context of describing experience with staff development</p> <p>Teachers’ outside lives impact experience in staff development</p> |
| After 4 | <p>“Own experience” code represented also as “relation to role” –must distinguish between or combine the two codes</p> <p>Noticed did not code for “use of info.”; primarily used “relation to role”</p> <p>Not coding for “evidence of climate setting”; feel it is a contrived code</p> <p>“Comparison to other staff development” –not a developed category</p> | |

| Date/session reference | Code notes | Category notes |
|------------------------|--|----------------|
| | <p>“Content/methods of learning” – most using some sort of technology; some bought books; Lily works almost entirely outside of the sessions; group members solicit help from one another and offer help to one another; appear to work independently until need help; Question: Do participants come out of independence when learning process more efficiently progresses with help of another person (because the other has some knowledge readily available)?</p> <p>“Do right/clarification” –1st night present concerned about doing right; strong conception there is a right way to do things</p> <p>“Learning plan” –most questions from participants are requests for clarification”</p> <p>“Facilitator” –participants expressed feelings of admiration and care for me; they are concerned about meeting my needs; most expressed took the course because of me</p> <p>“Feelings about learning” –positive feelings, negative feelings, strategies for dealing with frustration in learning; frustrated when progress is impacted or halted</p> <p>“Learning in general”-notion that have to use information; notion that interest has to be present</p> <p>“Learning plan” –participants have questions about pre-project assessment, people/materials, and the timeline</p> <p>“Own experience” –did not code for this as much as “relate to role” Participants validated research articles based on own experience</p> | |

| Date/session reference | Code notes | Category notes |
|------------------------|--|----------------|
| | <p>“Project” –all had to do with role/job; all except one incorporate a piece appealing to other adults; all except one geared towards students; all projects spawned by something want to change or improve</p> <p>“Reason for learning” –personal and professional reasons; reasons for cooperative learning were to make learning go faster, unable to do project alone</p> <p>“Relating own learning to classroom/role” –used examples from own class/role to illustrate a point; desire to use information/skills learned in role; learning tied closely to what doing in role; participants’ students are at the fore of discussion and plans</p> <p>“Relating professional research/knowledge” –related in response to group members/discussion; related research on learning; gave opinions on research; relating professional research/knowledge appears to be conversational, not key to experience</p> <p>“Researcher response to members” –I explained parts of the learning plan; I affirmed them with things to do with learning; I interacted personally about things not related to learning on occasion</p> <p>“Response to group members” –they enjoy one another; have opinions of one another; give positive affirmations to one another; give help to one another; ask one another for help; learning together; engage in conversation about projects; personal interactions not related to staff development</p> | |

| Date/session reference | Code notes | Category notes |
|------------------------|---|--|
| | <p>“Response to learning” – their learning tied to student learning; positive and negative responses; academic responses; desire for further learning</p> <p>“Self-perception” – positive and negative perceptions; comparison of self to others; define ‘self’ by role among other things; usually define self heavily by one characteristic</p> <p>“Staff development” – apprehension/uncertainty; enjoy/like program; positive and negative feelings; noted benefits of program</p> <p>“Use of information” – participants feel more likely to use information because of personal interest; use of info. appears to be the desired goal</p> | |
| After 5 | <p>“Feelings about learning” and “response to learning” – need to distinguish between two codes</p> <p>The project represents something larger than simply the actual piece of work. Question: does the goal parallel something important to how self is defined?</p> | <p>Participants have idea their achievement must be high, superior</p> <p>Learning experience subcategories: use of info., comparison to other staff development, relating own role to learning, relating professional research, staff development program, content/method of learning (sometimes also social), learning plan, own experience, reason for learning, response to learning, learning in general, feelings about learning (sometimes intrapersonal)</p> <p>Social experience subcategories: response to group members, facilitator, evidence of climate setting, content/method learned (sometimes learning experience)</p> <p>Intrapersonal experience: do right, self-perception, feelings about learning (also learning experience), sense of high achievement</p> <p>Maybe learning experience should</p> |

| Date/session reference | Code notes | Category notes |
|------------------------|--|---|
| | | <p>subsume the social and intrapersonal categories; rationale: learning is often tied to intrapersonal or social experience</p> <p>Academic category – prior learning and current learning</p> <p>Intrapersonal category –response to internal things and response to external things</p> <p>Social category –group members and facilitator</p> |
| After 7 | <p>“Time” – in vivo code; important to teachers; all participants working outside class</p> <p>“Lesson” – in vivo code; represents participants’ comments regarding staff development lessons</p> <p>“Response to group members” –sense of isolation</p> <p>“Staff development program” – participants ‘defined’ the staff development program</p> <p>“Present” –participants noted ‘importance’ of having to present their project on the final night of the program; maybe this code should be subsumed under “staff development program”</p> <p>“Response to learning” – bleeds into personal time</p> <p>“Response to group members” – participants feel a responsibility to group members</p> | <p>As a member of the social group, I provide a reflection of the self for participants</p> <p>Learning impacts self-confidence/self-image</p> <p>Participants constantly giving one another positive affirmations; negative self-image is self-induced; ironically participants have sense of high achievement</p> <p>Learning is an emotional experience for participants</p> <p>Conception of self based on comparison of self to others and what bring from prior experiences; prior experiences provide foundation for dealing with new situations</p> <p>Participants have need to be respected by others</p> <p>Relationship of the group is easy, helpful</p> |
| After 8 | <p>“Project” –is a broad goal with component parts; changed across program; how project conducted included in “content/method learned”</p> | <p>Intrapersonal category – self perception (comparison of self to others, definition of self, positive/negative characteristics), sense of high achievement (pursuit of</p> |

| Date/session reference | Code notes | Category notes |
|------------------------|------------|--|
| | | <p>challenges, desire to be best, presentation/good work), pressure on self (analyze further), do right (conception of do right, origin of concern dropped), time (demands upon, feelings about, personal life), feelings about learning (positive and negative feelings)</p> <p>Academic category – drop distinction between current and prior learning</p> <p>Academic category – staff development program (participant defined, comparison to other staff development, uncertainty about structure, benefits, discontent, reasons for participation, unsolicited suggestions dropped, presentation, lessons, enjoyment unless needs unmet dropped), reasons for learning (work-related, personal, certification dropped, use of info. dropped, other dropped), learning plan (positive and negative comments, interaction with plan, change plan, and questions about plan), project (goal with parts dropped, time spent, project changed, feelings/emotions dropped, share with others, difficulties), content/method learned (methods of learning, work alone until help needed, efficiency, content learned dropped), and response to learning (positive and negative responses, tied to student learning, tied to experience, dealing with problems dropped, notions about learning in general, relating learning to role)</p> <p>Social category – group members (description, response to group members), type of interaction (affirm one another, help/solicit help from one another, socializing interaction, dialogue about project), researcher/facilitator (description, comparison to other facilitators dropped, emotions about facilitator,</p> |

| Date/session reference | Code notes | Category notes |
|------------------------|------------|---|
| | | concerned about meeting researcher's needs), and researcher response to group members (explaining parts of the learning plan/instruction, affirmations, personal interaction dropped) |